HOW TO PERFORM MARKET ORIENTATION IN NEW PRODUCT DEVELOPMENT

Master’s Dissertation in Management of Innovation and Business Development II, 15 credits

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Abstract

In turbulent environments, the infused marketing function has become an essential and natural part in the firms’ new product development (NPD). Some scholars define NPD as the transformation of a market opportunity into a product as a result of the coupling of market assumptions with technological possibilities. The purpose of this thesis is to explore the role of market orientation in NPD, with the specific focus on how market orientation is carried out in NPD and how it affects NPD. This study is built on a conceptual framework and a tool, both are formed from literature. The authors use the case study to conduct this research, and one company’s (Tylö’s) data is gathered through the semi-structured interview. Some findings are obtained from analysis: Firstly, market orientation contains two approaches, one is the market-driven approach and the other is the driving-market one, and firm could choose one of them according to the new product features. Secondly, there are four areas in market orientation, for each approach, the specific content in each area is different. Thirdly, the four areas are identifying customers’ needs, collecting information, inter-functional coordination and taking action and they move on sequentially. In addition, two crucial factors-time and cost should be paid much attention in NPD.

Key Words: Market orientation; NPD; Market-driven; Driving-market

1 Introduction

1.1 Background

Turbulent environments have high levels of inter-period change. These changes create uncertainty and unpredictability (Bourgeois et al., 1988). In these environments, managers must cope with uncertainty regarding their customers’ needs, as well as uncertainty regarding long-term technology and market decisions (Mullins and Sutherland, 1998). The role of the marketing function has, therefore, evolved from only performing tactical marketing tasks to infusing a marketing capability into the organization’s core business processes (Grigg, 2003). Extensive research shows that the infused marketing function is an essential and natural part in the firms’ new product development (NPD) today (Hurley and Hult, 1998; Lewis, 2001; Narver et al., 2004; Ellis, 2006). Some scholars hold the view that marketing function plays a positive role in NPD. Firms that are better at the market orientation-related activities have better innovation processes and greater success with NPD (e.g. Dyer and Song, 1997; Griffin and Hauser, 1992; Xie et al., 1998; Jaworski and Kohli, 2000; Song and Montoya-Weiss, 2001; Baker and Sinkula, 2005). This could be referred to as the market orientation’s influence on NPD in a firm. Over the years, some different definitions of market orientation have emerged mainly in marketing and NPD research. Originally, market orientation was defined in terms of an organizational
culture comprising values and beliefs about putting the customer first in business planning (Shapiro, 1988; Deshpande and Webster, 1989; Kohli and Jaworski, 1990). However, some researchers (Kohli and Jaworski, 1990; Gatignon and Xuereb, 1997; Deshpande, 1999) defined market orientation as a collection of behaviors and activities relating to market intelligence generation (customer and competitors’ information collection), market intelligence dissemination within the firm, and action-oriented responsiveness to the customer.

Simultaneously, some scholars defined NPD as the transformation of a market opportunity into a product as a result of the coupling of market assumptions with technological possibilities (Krishnan and Ulrich, 2001; Griffin and Hauser, 1992). Based on this, NPD becomes a complex and multifunctional process, including concurrent marketing, engineering, cross-functional working, advanced tools, early involvement etc. (Thomas, 1993; Wheelwright and Clark, 1992), by which an organization uses its resources and capabilities to create a new product or improve an existing one (Cengiz et al., 2005). The general perspectives of NPD are often stated to be R&D, marketing, and manufacturing (Kohn, 2006). Therefore, the effect of market orientation on NPD can be illustrated from different perspectives, such as the effect of market intelligence generation on NPD, the effect of market intelligence dissemination on NPD and the effect of action-oriented responsiveness on NPD (Narver and Slater, 1990; Lafferty and Hult, 2001).

Although market orientation and NPD has attracted considerable attention in the marketing literature, several important questions require further examination. Firstly, apart from the previous understanding of market orientation, some new concepts emerging in recent years, there is still no clear definition of market orientation and the existing statement of these concepts are abstract, therefore it is ambiguous how market orientation is carried out in NPD in a firm. Secondly, majority of prior research merely studies the relation between market orientation and NPD through quantitative research, such as negative or positive, direct or indirect relation (Dyer and Song, 1997; Griffin, 1992; Christensen and Bower, 1996; Song and Parry, 1997; Xie, et al., 1998; Berthon, et al., 1999; Song and Montoya-Weiss, 2001; Langerak et al., 2004; Baker and Sinkula, 2005; Reid and Brady, 2008), however, there is limited research on how market orientation affects NPD. Accordingly, this research is devoted to helping fill these two gaps, in other words, based on the previous research, authors will figure out how market orientation is carried out in NPD, besides, how market orientation affects NPD will also be explored.

1.2 Research purpose and Research question

Since market orientation plays a significant effect on firm’s NPD, a better understanding of the relationship between marketing orientation and NPD in a firm is desirable. The purpose of this research is to explore the role of market orientation in NPD. To achieve this purpose, two research questions are formulized. One research question is how market orientation is carried out in NPD. The other research question

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is how market orientation affects NPD. This research may shed light on these issues and facilitate firms’ market orientation in NPD.

1.3 Delimitation

The research of the relationship between market orientation and NPD can be conducted from several perspectives, for example, how the market orientation affects NPD in different industries, how market orientation is carried out in NPD in different context internationally. Certain delimitation evident in this study should be taken into account. This study is only concentrating on Swedish firms, with one major international firm analyzed as the case. It is because Swedish firms pay extensive attention to NPD based on marketing orientation.

1.4 Outline of the thesis

The outline of the article is as follows: Firstly, a comprehensive review of market orientation literature and how market orientation affects NPD literature will be elaborated. Secondly, in the frame of reference, a conceptual framework will be formulated to clarify how market orientation is carried out in NPD, followed by a tool which will be formed to explain how market orientation affects NPD. Thirdly, the methodology (which includes research approach, case study, data collection, data analysis, as well as reliability and validity) will be stated. Fourthly, the case company will be described briefly. Finally, combined with the empirical data, the effects of market orientation in NPD will be discussed in the results and discussion section. Accordingly, conclusion, implication and further research will be drawn.

2 Literature review

The literature review is developed in two parts. First, authors present a review of research on market orientation in general. Second, authors present a review of research connecting market orientation and NPD.

2.1 Market Orientation

Market orientation was first defined in literature as an organization-level culture comprising values and beliefs about putting the customer first in business planning (Shapiro, 1988; Deshpande and Webster, 1989; Kohli and Jaworski, 1990). Additionally, Some authors also emphasized that market orientation is the set of beliefs that puts the customer's interest (or understand the latent needs of customers) first (Deshpandé et al., 1993; Narver et al., 2004), while not excluding those of all other stakeholders such as owners, managers, and employees, in order to develop a long-term profitable enterprise (Deshpandé et al., 1993). Since then, market orientation has been studied both as a cultural phenomenon, and a set of behaviors and actives relating to (1) organization-wide market intelligence (covers both
customers and competitors) generation through decision support systems, marketing information systems and marketing research efforts, (2) market intelligence dissemination within the firm, and (3) action-oriented responsiveness to the information (Gatignon and Xuereb, 1997; Deshpande, 1999).

2.1.1 Towards four areas of market orientation

During the development of market orientation, some scholars put the emphasis on certain perspective around cultural and behavioral approaches, e.g. they view the market orientation from a market information processing perspective. Hunt and Morgan (1995, p.11) define market orientation as: “(1) the systematic gathering of information on customers and competitors, both present and potential, (2) the systematic analysis of the information for the purpose of developing market knowledge, and (3) the systematic use of such knowledge to guide strategy recognition, understanding, creation, selection, implementation, and modification”. Meanwhile, in a recent study, some researchers stated market orientation as the process of obtaining information from the marketplace (customers, competitors, supply chain partners, and environmental trends), analyzing and evaluating of market information, and using the information throughout the organization (take response of the information) (Moorman, 1995; Jaakkola et al., 2009; Song et al., 2009).

Furthermore, some scholars also state market orientation around cultural and behavioral approaches in a wide range which combine different perspectives. Narver and Slater (1990) proposed that market orientation has three dimensions: customer orientation (the firms understand their buyers in order to create superior value for them continuously), competitor orientation (firms’ understanding of the short-term strengths and weaknesses and long-term capabilities and strategies of both the key current and the key potential competitors) and inter-functional coordination (the coordinated use of firm resources to create superior value for target customers). It means that gathering, analyzing, and using information of customers as well as competitors is important. Inter-functional coordination supports sharing of information, which is necessary in order to achieve an effective use of information.

There is one statement from Lafferty and Hult (2001) which embraces above perspectives. Based on the research of several similarities in the prior perspectives, they formed four general areas of agreement which was reflected as to what constitutes the basic foundation of market orientation, including:

(1) an emphasis on customers;
(2) the importance of shared knowledge (information);
(3) inter-functional coordination of marketing activities and relationships;
(4) being responsive to market activities by taking the appropriate action (Lafferty and Hult, 2001, p.100).
2.1.2 Market orientation as driving-market and market-driven

Nevertheless, to counter criticism that market orientation (conceptualized as being market-driven) was too reactive, both Jaworski et al. (2000) and Beverland et al. (2006) identified two forms of market orientation - market-driven and driving-market approaches. They proposed that firms that are truly market-oriented combine both approaches (Ibid). When utilizing a market-driven approach, businesses adopt a reactive stance and focus on trying to learn, understand and respond to stakeholder (customer, competitor, owners, managers and employees) perceptions and behavior (Jaworski et al., 2000). Backman et al. (2007) stated that market-driven concept is aimed towards a certain customer group or business opportunity. In contrast, a driving-market approach involves proactive strategies that aim to change the structure of the marketplace or the rules of the game (Jaworski et al., 2000). Driving-market involves leading customers rather than evolving the offer in response to customers' ongoing requests (Beverland et al., 2006). A company must have the imagination to envision markets that do not yet exist and the ability to stake them out ahead of the competition (Hamel and Prahalad, 1991). Organizations using a driving-market strategy in NPD do not only strive to meet customer needs but also search for products that pioneer new markets. Market-driven approach would focus on evolutionary product changes driven by feedback from business buyers and end-consumers (Beverland et al., 2006). The strategy, market-driven and driving-market, would both include a competitor focus, deriving ideas from the marketplace, and gaining access to distribution channels (Song and Parry, 1996; Liu et al., 2003; Beverland et al., 2006).

Besides, according to Kumar et al. (2000), firms whose success has been based on radical business innovation indicates that such firms are better described as driving-market. While market-driven processes are excellent in generating incremental innovation, they rarely produce the type of radical innovation which underlies market driving firms (Ibid). Driving-market strategy entails high risk, but also offers a firm the potential to revolutionize an industry and reap vast rewards (Kumar et al., 2000).

People may confuse about technology push and driving-market. It is necessary to clarify these two definitions and compare the differences between them. Technology push is a term used to describe a part of a business strategy of a firm. A technology push implies that a new invention is pushed through R&D, production and sales functions onto the market without proper consideration of whether or not it satisfies a user need (Martin, 1994). This author shows the technology push process in his book, (see Figure 1). In the technology push view, technologists or scientists carry out research in their laboratories in order to create new knowledge. This new knowledge forms the basis for new products, processes or services that are then “handed over” to the rest of the organization to produce, sell and distribute (Ibid). Technological advances push what goes into the marketplace (Whittington et al., 2007). Compared
with the definition of driving-market, it can be seen that, driving-market focuses not only on searching for products that pioneer new markets, but also striving to meet customer preference.

![Figure 1 Technology Push (Martin, 1994, p. 44)](image1)

![Figure 2 Market Pull (Martin, 1994, p. 44)](image2)

To make the concepts of driving-market and market-driven much more clearer, it is necessary to state their relationships with market pull which is figured above. An innovation based upon market pull has been developed by the R&D function in response to an identified market need (Martin, 1994) (see Figure 2). Compared with the statement of driving-market and market-driven above, it can be seen that market-driven and driving-market are both market pull since they both promote the NPD in response to the market needs, either current or latent. Authors of this thesis investigate the specific process from marketing to production in market pull in the form of market-driven and driving-market.

### 2.2 How Market Orientation affects NPD

#### 2.2.1 Types of NPD process

NPD is the process, including concurrent marketing, engineering, cross-functional working, advanced tools, early involvement etc. (Thomas, 1993; Wheelwright and Clark, 1992), by which an organization uses its resources and capabilities to create a new product or improve an existing one (Cengiz et al., 2005). There are primarily two types of NPD process, liner sequential NPD process and parallel process (Schilling and Hill, 1998).

Before mid-1990s, research focuses on liner sequential NPD process. Most firms use a sequential process for NPD, wherein development proceeds sequentially from one functional group to the next. These functional groups are such as R&D, marketing, manufacturing, and logistics work independently and in sequence. This sequential
process includes a number of stages where decisions are made as to whether to proceed to the next stage, send the project back for further work, or kill the project (Schilling and Hill, 1998).

However, the sequential process results in long development times and an inefficient NPD process (Mentzer, 2001). A solution to this problem is to use a parallel process instead of a sequential process. A parallel process shortens overall development time, and enables closer coordination between stages. It is an integrated approach to new product development that can also lead to compressed cycle time. Time losses between the product and process design stage typically are reduced or eliminated, which should lead to compressed cycle time (Mentzer, 2001).

2.2.2 Market orientation’s influence on NPD related with four areas - from market-driven and driving-market approaches

Look back to the research question, “how market orientation is carried out in NPD”. As Lafferty and Hult (2001) state, market orientation embraces four areas, when it comes to the research question, these four areas can be seen as four areas of how market orientation is carried out in NPD. Combining with NPD theories, these four areas will be reviewed with the connection of NPD. Meanwhile, as reviewed before, market orientation contains two approaches, market-driven and driving-market. Therefore, they share the same four areas with market orientation. Accordingly, in this part, market orientation’s effect on NPD related with four areas will be reviewed from market-driven and driving-market approaches.

2.2.2.1 Identifying customers’ needs

The traditional emphasis of marketing orientation was customer oriented, focusing on consumer needs and making profits by creating customer satisfaction (Kotler and Armstrong, 1994). Narver and Slater (1990) stated that the customer orientation element requires a sufficient understanding of the customer in order to create products or services of superior value for them. Recent work suggests that customers have a crucial role to play in understanding how and why innovation works. Close contact with customers and effective communications of their needs leads to a better understanding of the value of product features (Cengiz, 2005). Besides, firms’ orientation towards customers is likely to influence how they respond to changes in the marketplace, in particular, the extent to which firms develop and introduce new products (Lewis, 2001).

In market-driven approach, firms respond to environmental changes as they arise, but do not attempt to force change back into the environment (Narver et al., 2000; Sandberg, 2002). Even in those instances where latent needs are uncovered by the
there is still no active attempt to create or change behaviors among the customers (Narver et al., 2000). This kind of firms would not step outside the immediate voice of the customer and attempt to shape consumer preferences or modify them (Jaworski et al., 2000). However, how many of customers were asking for microwave ovens, cellular telephones and home fax machines? Of course it is important to listen to customers, but it is hard to be a market leader if the company does no more than that (Hamel and Prahalad, 1991). For driving-market approach, market orientation includes development of capabilities in market sensing and customer linking (Day, 1994), which lead to a deeper insight into customer’s both expressed and latent needs.

Kohli and Jaworski (1990) also indicate that effective market intelligence involves not just current needs but also future ones. Driving-market approach requires the company has deep insight into the needs, lifestyles, and aspirations of today’s and tomorrow’s customers will (Hamel and Prahalad, 1991). This enables development of innovative solutions to satisfy those needs (Narver et al., 2004). Furthermore, firms using driving-market approach don’t just engage in educating customers about product attributes and benefits (Carpenter and Nakamoto, 1989; Kumar et al., 2000). They tend to change the rules of the “games”, or create new customers/ markets (Hamel and Prahalad, 1994).

2.2.2.2 Collecting information

A firm’s capability of generating, disseminating and exploiting market information strongly influences NPD and its outcomes (Han et al. 1998; Langerak et al., 2007). Market-driven approach to NPD emphasizes close relationships with entities both internal and external to the organization in order to get information about customers’ needs and wants, competitors and changes in the market. Thus, a market-driven product development management emphasizes the significance of creating and exploiting market knowledge in designing and developing superior products (Srivastava et al., 1999; Kohli and Jaworski 1990). What’s more, market information processing capabilities and generative learning also permit to quickly identify and respond to changing customer needs (Baker and Sinkula, 2005). In order to develop the new product and make the NPD succeed, the organization needs to understand the strengths and weaknesses of its competitors, monitoring competitors’ actions and investigate competitors’ supply chain partners (Laffery and Hult, 2001).

For driving-market approach, as Jaworski et al. (2000) claim, this approach shares the similar perspectives with market-driven, but contains more from other sides. They stress the external activities, arguing that a firm using driving-market approach can reshape the value chain through eliminating players (deconstruction), adding players (construction) or by changing their functions (re-construction) (Ibid). Firms using market-driving approach may also shape the behavior of key factors such as customers or competitors by educating them or influencing their incentives and
preferences (Ibid). For instance, Sarasvathy (2001) points out firms using driving-market approach may set up alliances and cooperate with their competitors.

### 2.2.2.3 Inter-functional coordination

Inter-functional coordination is the coordinated use of firm resources to create superior value for target customers (Narver and Slater, 1990). This coordinated integration draws on the information generated and through the coordinated use of firm resources, disseminates the information throughout the organization (Laffery and Hult, 2001). Moye and Langfred (2004) stated that sharing information among different apartments may not only reduce different conflicts such as task conflict and relationship conflict but also create a common understanding. Moreover, argument shows that marketing and manufacturing strategies and design inputs should be closely integrated throughout the NPD effort (Narver and Slater, 1990). The technical community either did not understand the customers’ underlying needs or missed the appropriate price/performance target. Meanwhile, as many companies are becoming more market-oriented, their world-class competitors are using advanced technology to create new businesses that few marketers could have imagined (Hamel and Prahalad, 1991). Neither technology nor marketing can be the sole departure point for creating new competitive space (Ibid). Consistent with Slater and Narver’s (1998) arguments that market orientation goes beyond being customer led, a firm’s competitor orientation and inter-functional coordination are positively associated with its NPD creativity (Wei, 2006). Creative new ideas and innovations usually come from interactions among people (Leenders et al., 2003). Therefore, technology and marketing need to be well coordinated within a firm. To blur organizational and career boundaries by ensuring that both communities had a large base of shared experiences. The result was potent mixture of market and technical imagination (Hamel and Prahalad, 1991). Integration leads to greater product design quality, where design quality is a holistic concept comprised of both product performance and conformance attributes (Swink and Song, 2007). The inter-functional coordination embedded in the market-oriented culture (Narver and Slater, 1990) also provides a unifying focus of creating superior value for customers (Baker and Sinkula, 1999; Atuahene-Gima, 1996) with a comparative impetus with competitors’ activities, and helps to achieve a holistic approach to NPD practices, thus improving new product performance (Langerak et al., 2007).

The emphasis of inter-functional coordination differs for market-driven and driving-market approach. As to the former, Kohli and Jaworski (1990) stress the preference for market driven that it makes the marketing department take the responsibility of all departments in the organization. As the later, early manufacturing inputs can squelch creative ideas (Burns and Stalker, 1961; Gerwin, 1993), technology department plays much more important role in driving-market, successful market driving firms have developed a unique internal business system that offers
customers a leap in the value proposition in terms of, for example, new price points or a superior service level (Kumar et al., 2000).

2.2.2.4 Take action

According to Kohli and Jaworski (1990), responsiveness is the action taken in response to intelligence that is generated and disseminated. Some scholars argue that organizational responsiveness results from firms' gathering, sharing, and interpretation of environmental information (Wei and Wang, 2010). The other elements have no value if the organization is not able to respond to market intelligence and the market needs (Lafferty and Hult, 2001). According to Kohli and Jaworski (1990), all departments need to be responsive and this can take the form of selecting the appropriate target markets, designing, producing, promoting and distributing products that meet current and anticipated needs. What's more, Homburg et al. (2007) argue that maintaining and enhancing a firm's responsiveness to environmental changes may create a competitive advantage and thereby enhance a firm's financial and product performance. Firms pursuing an innovation strategy may pay close attention to novel products and new services in the marketplace (Hurley and Hult, 1998).

2.3 Frame of reference

2.3.1 The conceptual framework of how market orientation is carried out in NPD

In this part, based on the previous literature, a new conceptual framework of how market orientation is carried out in NPD (see Figure 3) is built up. This model will be used in the empirical part of the thesis. Following the model, authors will explicitly elaborate how the model is formulated and the interaction of different parts.
After reviewing the development of market orientation and different perspectives of market orientation, authors consider the most fruitful concepts are the ones stated by Lafferty and Hult (2001) and Jaworski et al. (2000). The former claim that four general areas constitute the basic foundation of market orientation. The later propose firms that are truly market-oriented combine market-driven and driving-market approaches. Lafferty and Hult (2001, p. 100) stated four general areas constitute the basic foundation of market orientation which are (1) an emphasis on customers; (2) the importance of shared knowledge (information); (3) interfunctional coordination of marketing activities and relationships; and (4) being responsive to market activities by taking the appropriate action (Lafferty and Hult, 2001). Compared with the previous research, these four areas cover almost all the dimensions stated by the scholars. To be specific, how each area covers the demensions will be discussed. First area is the emphasis on customers. As reviewed above, the cultural and behavioral approaches are the main streams in market orientation. Meanwhile, as Mavondo and Farrell (2000) noted, the cultural and behavioral approaches share the notion that the consumer is central in the manifestation of market orientation. Second area is the importance of shared knowledge (information), covering the statement of Moorman (1995), Jaakkola et al. (2009), Gatignon and Xuereb (1997) and Deshpande (1999). These scholars all claim that information is one important part of market orientation. Specifically, the information here contains customers, competitors, supply chain partners, and environmental trends information (Moorman, 1995; Jaakkola et al., 2009; Song et al., 2009). Third area is the inter-functional coordination of marketing activities and relationships. Forth area is being responsive to market activities by taking the appropriate action. Similarly, it covers the statement of Narver and Slater (1990), Moorman (1995), Jaakkola et al. (2009), Song et al. (2009), Gatignon and Xuereb (1997) and Deshpande (1999). All of these scholars stated that using the information throughout the organization is an elementary part in market orientation. Narver and Slater (1990) considered that the inter-functional coordination is essential for market orientation. Gatignon and Xuereb (1997) and Deshpande (1999) put the emphasis on the action-oriented responsiveness to the information.

However, those four general areas of market orientation posted by Lafferty and Hult (2001) have been mainly researched from the market-driven approach. The authors have the consensus opinion with Jaworski et al. (2000) that market orientation (conceptualized as being market-driven) was too reactive. Market orientation should contain two forms: market-driven and driving-market approaches (Ibid). These two approaches share the same four areas, but the content contained in each area is different. As mentioned above, market-driven and driving-market are different approaches to firms. That is to say, to answer the question, “how market orientation is carried out in NPD”, it is very important for a firm to choose one of them (either market-driven or driving market approach) before developing one specific new product. After choosing, the firm may follow the four general areas to implement...
NPD. The sequence of four areas is related to the NPD process in which market orientation is carried out. Schilling and Hill (1998) stated two main NPD processes, one of which is the linear sequential process and the other is the parallel one. However, neither of them will be adopted in this paper. The reasons lie in that, firstly, for linear sequential process, the functional groups work independently, which denies the importance of inter-functional coordination; secondly, for parallel process, it enables closer coordination between stages, which could not show the primary place of identifying customers’ needs in market orientation. Therefore, through consideration of those two processes, authors formulate a chain-linked process with feedback loops to describe the sequence and interaction of four areas. The reason of adding feedback loops into the process is that when it comes to the taking action area, if the firms found that the information is insufficient, they could go back to the first area identifying customers’ needs.

### 2.3.2 Four areas’ effect on NPD related with market-driven and driving-market approaches

What is more, in order to help with responding to how market orientation affects NPD, one tool (See Table 1) is formulated by authors. See the reasons as follows to know the process of the tool building.

**Table 1 Four areas’ effect on NPD related with driving market-driven and driving-market approaches**

<table>
<thead>
<tr>
<th>Two approaches</th>
<th>Market-driven</th>
<th>Driving-market</th>
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<tbody>
<tr>
<td><em>Four areas</em></td>
<td></td>
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<tr>
<td><em>Identifying customers’ needs</em></td>
<td>Emphasizes the feedback from customers and the response to customers’ current needs (Narver et al., 2000).</td>
<td>Emphasizes a deeper insight into both the expressed and latent needs of customers (Narver et al., 2000), and gives rise to new customers (Hamel and Prahalad, 1994).</td>
</tr>
<tr>
<td><em>Collecting information</em></td>
<td>Requires information based on understanding the strengths and weaknesses of firms’ competitors, and information from</td>
<td>Requires further information by shaping the behavior of competitors (e.g. firms set the alliances, and cooperate</td>
</tr>
</tbody>
</table>
As stated above, market orientation contains two approaches, market-driven and driving-market. They share the four areas of market orientation. Nevertheless, the content of each area under two approaches is different. Therefore, when it comes to market orientation’s effect on NPD, each area’s effect on NPD should be explicitly stated under market-driven and driving-market approaches. Meanwhile, the each content in the table is concluded from the previous study. At the following discussion, Authors will compare with the empirical data and further complete the contents of the table. In this study, the unit of analysis is product.

### 3 Methodology

This study is trying to figure out how marketing orientation is carried out in NPD and how marketing orientation affects NPD. Specifically, the indication of this research is to dig deeper into the relationship between market orientation and NPD. While a quantitative research is primarily aimed at providing statistical knowledge, enabling predictions; a qualitative research emphasizes a broader range of perspectives on complex interrelationships within a more limited number of empirical entities (Denzin, 2000; Sliverman, 1993). Therefore, this study draws on a qualitative research.

Considering the one single company of this study, Tylö, it is pertinent to speak of a case study. Case study is an approach which helps in exploring a contemporary phenomenon in its real life context (Yin, 1994). Multi-case studies facilitate a deeper understanding of soft variables and key relationships and are believed to be
particularly valid for uncovering business marketing practices (Eisenhardt, 1989; Biemans, 2003). However, multi-case studies are often facing a problem of dealing with the huge sum of the data, and decrease the possibility of having a deeper insight into the company (Yin, 1994). Connected with the topic, one case is a proper method to proceed since the limited time and the difficulty of collecting data. More importantly, one single case can strengthen the depth of the study and meet the objective of this paper. The selection of case is an important aspect when authors are developing theory (Eisenhardt, 1989). The case company was selected following a purposive sampling logic. Firstly, Tylö is a major international company which has its own marketing department and NPD department. Moreover, Tylö used to develop new products based on market demand and its own innovative capability. Secondly, the CEO of the company is quite kind and generous. He is willing to do the research with authors, which will improve the reliability of empirical data. Thirdly, authors had the successful cooperation with Tylö before. The project which related to Tylö’s Chinese market helped authors understand Tylö and triggered authors’ interest to do further research with Tylö. Finally, since Tylö locates close to authors’ university, it is quite convenient to make the interview and get more complementary information, if needed.

Data for this paper were obtained through two sources: primary and secondary data. Semi-structured interview, which offers the interviewee freedom and flexibility in answering question, was chosen to collect primary data (Bryman and Bell, 2007). According to Yin (1994), interviews will be the primary way, and it is one of the most important sources for a case study. Therefore, authors developed an interview guide (Appendix 1) found on the theoretical framework. The interviewees in this paper are selected as CEO and New Product Manager. Before the interview, authors share the work, one focuses on asking the question, recording and making the questions easier for interviewees, the other one pays attention to the body language and eye contact of the interviewees, making short notes as well as making sure that all questions are covered (Bryman and Bell, 2007). Consequently, the interview is held on an appointed day in one of Tylö’s conference rooms. It is a quiet place with only authors, Tylö’s CEO and the Product Manager present. Therefore, the interview can go smoothly without interruption, and it also ensures the high quality of interview information. Fortunately, the interview lasts for three hours which turns out to be pretty successful. Besides, as the secondary data, the authors collected data from the firm’s official website, as well as from the news and reports about the company. According to Jacobsen (2002) the qualitative analysis consists of three things: describing, systematization and categorization, and finally combination. After the interview, authors listen to the record several times and transcribe all the data onto thirteen pages, then authors break down the data, examine, compare, evaluate, conceptualize and categorize data, and discussed with each other, and then the data is compiled into four pages of text. Accordingly, authors analyze the empirical data combined with the literature.
It is necessary to establish and assess the quality of research. Reliability and validity are the appropriate criteria for qualitative research (Bryman and Bell, 2007). To ensure high reliability and validity, the interview guide (see Appendix) is simplified so that the interviewee can understand easily. Meanwhile, the interview guide is formulated according to the theoretical review and conceptual framework, and it is corresponding with the research question. Moreover, the company is willing to do the research with authors, which ensures the data which authors get can be highly reliable. In order to improve the reliability of data, authors transcribe into thirteen of pages documents based on the tape-recorded interview and find the coherence of the data. In addition, the paper will be returned to the company for examination. Consequently, the reliability and validity in this study can be considered as acceptable.

4 Case Description

Tylö AB is a well-established sauna equipment manufacturer in Sweden with considerable market shares and all the resources necessary to ensure stable growth (Tylö, 2011). Tylö’s brand stands for innovation, aesthetics and quality (Ibid). It tries to achieve this triangle in every product it markets.

During recent years, the product portfolio of Tylö has grown and its future growth plans imply a further increase in its product portfolio. Tylö has been in the traditional sauna industry for a considerable time, and it is now heading into the bathroom industry. Tylö is trying not to be limited in the traditional level of sauna, instead Tylö is leading sauna equipment to a new level, which is family-used soft sauna room in the bathroom. There is the need to prioritize, from the cost perspective, while still developing competitive and unique products that have a clear position in the marketplace. For Tylö, it is stated that it is very important to have a marketing plan before NPD. The market design, the product design and the technology support, none of them can be lost.

Tylö has both driving-market and market-driven products. One of the market-driven products is the new traditional sauna cabin (upgraded product of traditional sauna cabin). One example of the driving-market products is the soft sauna room in the bathroom. As Tylö’s CEO stated, it needs to be on both sides, market-driven and driving-market. It is trying to keep a good balance between the market-driven and driving-market simultaneously. The wooden sauna room is in a very big market which Tylö has developed in for a long time. It is also a newly improved traditional product. Tylö finds combinations, improves the flexibility, and add some emotional elements to make the traditional sauna cabin much more personalized. As Tylö’s CEO said, “We cannot do everything new. The market for this product is there. But we do something to make our products stand out.” Meanwhile, Tylö keeps on promoting its glass sauna room which has a leading place in the market and it also stands for future trends. Tylö shows that on one hand, it needs to be one step ahead compared with
other sauna firms, and tries to find the trends into the future; on the other hand, it has to look on the traditional product side, trying to find weaknesses and trying to find some ways of improving the weaknesses in the existing products.

5 Results and Discussion

Regarding one of the research questions, “How market orientation is carried out in NPD”, Tylö responds to a similar process with the model afore mentioned above. Before developing a new product, it will choose one of the approaches, market-driven or driving-market. Subsequently, there are a series of processes as follows: firstly, identifying the customer’s needs and collecting the information in the market through the work of Tylö’s market department; secondly, gathering all the departments’ managers in the conference room to listen to the information which is presented by its market department; thirdly, all the managers start to lead their group to fulfill their task step by step (following the certain steps set by the firm) after the information has been shared. One important issue should be pointed out here that each step is divided explicitly, for example, only when one step finishes, can the following step commences, and after that, no one should go back to discuss the previous step. At last, the firm collects all the finished steps and their results, and then promotes them to the practical production, such as, produce, package and distribution. However, there is one distinction compared with the model. The firm will not surely go back to take more information from customer when the information needed doesn’t reach a hundred percent. It depends on how worthwhile the information is and what kind of information is lacking. Tylö considers that if the existing information has already achieved eighty percent of all the information it requires, it will press the button to continue to produce this product. This is because that it takes quite a long time to gather the rest information. The time to the market is extremely important. Tylö had the experience of losing the chances to launch new product because of collecting the remaining twenty percent of information. Interestingly, two significant factors in the whole process of NPD, time and cost, are repeated and emphasized during the interview.

As to the second research question, “how market orientation affects NPD”, authors will discuss each area’s effect on NPD from market-driven approach and driving-market approach.

5.1 Identifying customers’ needs

Tylö has been producing the wooden sauna cabin for a considerable time, it is the traditional sauna product. To collect the feedback from customers, Tylö holds meetings of core customers from seven countries who have bought its products. The management has very open discussions with its customers. From the talks with clients, Tylö learns whether these products are suitable for the market, and meets local customers’ requirement, and to further improve its products based on customers’
requirements. For instance, the improved click system makes assembling easier to meet the customers’ needs. Additionally, Tylö has upgraded these products through personalizing and increasing flexibility. Tylö offers seventeen basic layout components, and customers could design their own sauna cabins by choosing and combining different details based on their needs. Tylö also develops the online customer tool-kit to meet customers’ needs. As Tylö’s product manager said “When customers come to our website, they are expecting some customer tool, because they think good manufactures should have this function. We need to meet their expectations.” As to the theory, close contact with customers and effective communications of their needs leads to a better understanding of the value of product features (Cengiz, 2005). After meetings with core customers, Tylö improves the old product based on customers’ need and adds new functions. Meanwhile, Narver et al., (2000) also emphasize firms on responding to customers’ current need and feedback from customers when developing market-driven products. Tylö’s situation is exactly the same and concurs with the statement in the theories. It could be understood in the way that traditional sauna product has been in the market for a long time, this type of sauna is widely accepted by customers. Firms could make their products stand out by improving some details according to customers’ demands and feedback.

Tylö develops the soft sauna room for family use. It concludes the trend that spa is getting more and more popular, but people only enjoy it in hotels or clubs. Especially for women, they pay much more attention on self-beauty and women actually take charge of buying the new sauna room in one family (if it is a traditional sauna cabin with appearance defects, then it is only can be built in the basement), if the sauna room is nice designed and matching with decoration, women will be willing to have them in the bathroom. Besides, the traditional sauna temperature is too high for women. They actually enjoy the soft sauna which has medium temperature, combining with the fragrance. By identifying these latent needs, and meet these needs, Tylö develops this driving-market product, soft sauna room in the bathroom, which combines the home-spa, medium temperature, fragrance and modern appearance. For this driving-market product, Tylö identifies the future trends of sauna and transfers the spa into family-using sauna room. This product meets customers’ latent needs because customers have never had this pleasant experience before. For Tylö, this new product creates new customers for them. People will consider buying a sauna room in the bathroom instead of buying a single shower room. Compared with the theories, for the driving-market approach, the firms should have a deeper insight into customer’s both expressed and latent needs when developing it (Narver et al., 2000), and driving-market product creates new customers (Hamel and Prahalad, 1994). Tylö’s driving-market product confirms the theories. For the real driving-market product, it could meet both customers’ current and latent needs and it leads the trend in the industry.
5.2 Collecting information

Apart from the information from customers, Tylö also pays close attention to its competitors both from website (general information) and exhibitions (product details), as well as new technology in market and different regulation in different countries when it is developing a new product. As Srivastava et al. (1999)’s discussion, the information comes from customers, competitors and changes in the market, Tylö does it well when it is developing both market-driven products and driving-market products. As to the market-driven product, such as the new traditional sauna cabin which is made of wood, Tylö finds competitors are also good at handicrafts but are lacking in finance so that they cannot make the sauna cabin flexible. Conversely, Tylö adds the glass, the accessories to the sauna cabin such as the little bridge over the stream, which make the competitors feel hard to replicate. Moreover, Tylö improves some components of the new traditional sauna cabin in some countries in order to meet different local policies (such as the adaptable equipment and layout of cable). Laffery and Hult (2001) propose that firm needs to understand the strengths and weaknesses of its competitors in order to develop the new product and make the NPD succeed. Tylö discovers its competitors’ weaknesses and corrects them during the process of developing the new traditional sauna cabin. In addition, Tylö pays attention on the policies in different countries to make sure the new product can fit local requirements.

As to the driving-market product, soft sauna room in bathroom, Tylö not only makes up its competitors’ weaknesses but also brings in new technologies from different industries, as well as cooperates with its competitors. Specifically, steam generators (one component of soft sauna room) which can clean calcium automatically in tubes are designed to make up for the drawbacks in the whole sauna industry. Moreover, Tylö moves the new trends in the electronic world to the soft sauna industry. It designs the control panel (another component) for the soft sauna room which has the appearance similar with “iphone”. In addition, Tylö makes an alliance with Helo, a former competitor, which increases its personal and physical strength on behalf of both,§ they have made a great achievement together in NPD. As Jaworski et al. (2000) claim, driving-market approach shares the similar perspectives with market-driven approach, but contains more from external sides. Tylö emphasizes its external information well, making up for drawbacks in the whole industry and bringing in the new technology from different industries when it is developing the soft sauna room in bathroom. Sarasvathy (2001) points out that firm may set up the alliances and cooperate with their competitors in order to design the driving-market product. Indeed, Tylö’s cooperation with Helo makes developing the soft sauna room far easier.
5.3 Inter-functional coordination

After the information of customers and competitors is collected by the market department, conferences are held with all departments to discuss how the information can be processed in the new product within the fixed cost and restricted time sheet. Then the specific tasks, such as adding functions into it, designing it, setting up price level for it, all of them require much effort for all departments and their good cooperation. For the market-driven product, the new traditional sauna cabin, the market department plays a growing and important role in the NPD since Tylö is paying much more attention to the customers’ needs and feedback than before in the traditional sauna area. The theories (Laffery and Hult, 2001; Leenders et al., 2003; Moye and Langfred, 2004) state the importance of inter-functional coordination when NPD is proceeding. However, there is a different emphasis on the central department for market-driven and driving-market approaches. For a market-driven product, it requires the firm making the market department take the responsibility of all departments within the organization (Kohli and Jaworski, 1990). As to Tylö, for the market-driven product, since it pays much more attention to customers’ feedback and improving the product’s features based on customers’ needs, the market information is becoming much more important. Therefore, the market department plays a much more important role in the organization than previously.

Tylö holds the view that the employees are important assets. When Tylö develops its driving-market product, primarily, it tries to create an open (entrepreneurial) atmosphere among all the departments, which encourages people to be creative and free to express their innovative thinking. They can give some suggestions for the future trends which largely improve the driving-market product. Additionally, for developing the soft sauna room, the market department is the key factor. Combined with the entrepreneurial atmosphere in the whole firm, people could talk openly on the details to improve the new product features based on the market information. Theories state that for driving-market product, early manufacturing inputs can stifle creative ideas (Gerwin, 1993); technology department plays a much more important role in the whole organization (Kumar et al., 2000). Tylö does not introduce manufacturing inputs in the early phase. However, it encourages open discussion in the early phases which is very positive for stimulating creative ideas. One point is different from the theory. The market department is a core factor in Tylö instead of the technology department. The reasons lie in that the product is designed to meet customers’ latent needs, so the market information is crucial to all departments. Besides, the sauna room is not a product with high technology, customers’ needs are much more important by comparison. From this perspective, it can be seen that the central department in the organization is closely related with the product features.
5.4 Taking action

After the coordination among different departments, the results will be transferred into actions such as producing, packaging and distributing. Unique sales points of the new product need to be stated to the distributors when Tylö is distributing these two types of products. However, there is one major distinction between market-driven product and driving-market product. For the newly developed product in traditional sauna area, they share the same distribution channels with the previous traditional products’. That is to say, Tylö does not consider setting up new distribution channels for this type of product. Some scholars (Wei and Wang, 2010; Laflerty and Hult, 2001; Wei and Wang, 2010) argue that taking action is to respond to the market needs through designing, producing, promoting and distributing products (Kohli and Jaworski (1990). Tylö develops its new traditional sauna cabin in order to respond to the market needs. As Homburg et al. (2007) mention, maintaining the firm’s responsiveness to environmental changes helps them create a competitive advantage and thereby enhances the firm's product performance. Tylö’s response to the external changes and internal information ensures a high product performance.

For the soft sauna room in the bathroom, which is perceived as a completely new product for the whole industry, Tylö needs to consider a new way of distribution. Some of its distributors are not willing to accept the new product because they think this soft sauna room is beyond the sauna industry and crosses into bathroom industry, which makes them highly risky. Therefore, on one hand, Tylö has to motivate them to make the commitment (obviously, not all the distributors will accept); on the other hand, Tylö needs to search for some new distributors in different countries. Moreover, Tylö also trains the new distributors who are committed to selling the soft sauna room in the bathroom. As to the theory, however, there is no specific content to distinguish the difference between the driving-market product and the market-driven product on distributing that. The data tells us the difference explicitly. Tylö does not consider changing distribution channels when it is distributing the market-driven product. Nevertheless, when Tylö is distributing the driving-market products, it convinces the distributor to accept the products, searches for new distributors and trains them in the product features and how to sell them.

Accordingly, based on the discussion of empirical data from Tylö, one new tool is set up (see Table 2).

<table>
<thead>
<tr>
<th>Two approaches</th>
<th>Market-driven</th>
<th>Driving-market</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identifying customers’</strong></td>
<td>Emphasizes the feedback</td>
<td>Emphasizes a deeper</td>
</tr>
<tr>
<td><strong>needs</strong></td>
<td>from customers and the response to customers’ current needs.</td>
<td>insight into both the expressed and latent needs of customers, and gives rise to new customers.</td>
</tr>
<tr>
<td>---</td>
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<td>---</td>
</tr>
<tr>
<td><strong>Collecting information</strong></td>
<td>Requires information based on understanding the strengths and weaknesses of firms’ competitors, information from monitoring competitors' actions, and the different policies in different countries.</td>
<td>Requires further information by shaping the behavior of competitors (firms set the alliances with competitors), and monitoring weaknesses of the whole industry, plus the new technology information from other industries.</td>
</tr>
<tr>
<td><strong>Inter-functional coordination</strong></td>
<td>Needs the market department take more and more responsibility for all departments in the organization.</td>
<td>Needs the market department play the important role among all departments; open atmosphere is important for stimulating creative ideas.</td>
</tr>
<tr>
<td><strong>Taking action</strong></td>
<td>Responds to the market needs through designing, producing, promoting and distributing products; does not need changing former distribution channels.</td>
<td>Responds to the market needs through designing, producing, promoting and distributing products; requires setting up new distribution channels (firm convinces the distributors to accept the products, searches for the new distributors and train them).</td>
</tr>
</tbody>
</table>

This table is summarized from Tylö’s data, and modified from Table 1. It is set up in order to answer how market orientation affects NPD in Tylö, in terms of identifying customers’ needs, collecting information, inter-functional coordination and taking action.
6 Conclusions and managerial implications

6.1 Conclusion

The research purpose of this thesis is to explore the role of market orientation in NPD. Accordingly, two research questions are addressed: one is how market orientation is carried out in NPD, the other is how market orientation affects NPD. The authors analyze the data of Tylö through two types of product, market-driven product which is new traditional sauna cabin (by improving the existing products in the market) and driving-market product which is soft sauna room in the bathroom (pioneer, totally new for the market). The conclusions drawn are as follows.

Regarding how market orientation is carried out in NPD, the analysis of Tylö shows that when the firm develops the new product, it follows four steps after choosing the market-driven or driving-market approach. These four steps are identifying customers’ needs, collecting the information, inter-functional coordination and taking action. These four steps move on sequentially. The first two steps are fulfilled by the market department, then the customers’ information and market information is diffused in the whole organization among different departments. All departments follow certain small steps strictly in order to make sure the task could be finished in the limited time. Specifically, no one can go back to the previous small step after its completion. In conclusion, the firm collects all the required data and other results, and then promotes them to the practical production phase. However, Tylö will not surely go back to gather more information from its customers when the information required doesn’t reach one hundred percent. Time and product cost are emphasized as the two crucial factors in NPD.

When it comes to the second question, how market orientation affects NPD in Tylö, it is explored from four steps towards two approaches. Under each step, the specific content in market-driven product and driving-market product is different (see Table 2). For example, for the first step, identifying customers’ needs, the market-driven product requires the firm responding to customers’ feedback and monitoring customers’ current needs. While for the driving-market product, it needs the firm’s deeper insight into not only customers’ current needs, but also customers’ latent needs in order to create new customers.

6.2 Managerial implications

This research may shed light on facilitating firms’ market orientation in NPD. A number of managerial implications arise from the findings. The finding of this thesis has important implication for the companies which want to develop new product. To
be specific, according to new product features which they want to develop, they could consider choosing from two approaches, either market-driven or driving-market. Let this product follow the market trend or create new needs for customers are two options. After the company has chosen one of the two approaches, the way of how to perform market orientation needs to be considered, specifically, from identifying customers’ needs, collecting information, inter-functional coordination and taking action aspects. For market-driven product, the company could put the emphasis on meeting customers’ current needs, monitoring competitors' actions, making marketing department as the center in NPD and take action according to the overall effort. While for driving-market product, it requires the firm has a view of future, to explore and create new needs of customers, to change the rule of the market, to invest much more on technology and when taking action, new distribution channel might need to be changed because of the totally new product. What’s more, for both market-driven product and driving-market product, information should be collected in a wide range (such as customers, competitors, the other industries, and different policies in the market) and well-diffused among different departments in the whole organization, people in different departments should be well communicated in order to maximum the cooperated imagination. Last but not least, the time of developing and launching the new product should be strictly controlled. When it comes to start producing the new product, if the firm finds that the information needed is insufficient, it then needs to consider quite cautiously that to either go on producing it or return to gather more information. Otherwise, the firm may lose the market opportunity.

6.3 Future research

On account of the limitation of time and resource, only one Swedish international firm has been chosen which may restrict the findings to some extent. Future researchers might enlarge the research range of market orientation and NPD based on this research. They could do the research on comparison of market orientation and NPD in different firms. Each firm may have different characters of market orientation when they develop new product, do these characters relate with the industries’ features, or do them only depend on the product’s features? Is there some common characters of companies from one country, do they have similar market orientation performance in NPD? Therefore, one direction for future research could be conducted under a multi-industry or multi-culture background. Furthermore, in this thesis, market orientation’s role in NPD is researched, and the company in question is a major international corporation. However, for SMEs, they may have insufficient resources to conduct market orientation, does market orientation play similar role in NPD for SMEs? Accordingly, market orientation and NPD is interesting to be explored in SMEs.
Reference


Moye, N. A., & Langfred, C. W. (2004). Information sharing and group conflict: Going beyond decision making to understand the effects of information sharing on


## Appendix

### Semi-Structured Interview Guide

**Topic: How market orientation is carried out in NPD**

*Purpose of the interview: The main purpose of the interview is to find out how market orientation is carried out through market-driven and driving-market approach in NPD according to the experience of case company.*

### Basic information

1. Can you write down the name and website of your company?
2. What is your role/title on the company?
3. Do you wish that you and/or your company is treated confidentially in this study?

### Product information, as market-driven product or driving-market product

1. Did your company launch some new product recently? If so, what kind of product? Is it totally new to the market place (driving-market product) or is it similar with the existing products in the market (market-driven product)?
2. Could you give an example of the other type of product? For example, if the previous product is a driving-market product, please indicate a product which is market-driven, and vice versa.
3. Do you have an exact distinction between driving-market product and market-driven product?

**Market orientation’s influence on NPD related with four areas - from market-driven and driving-market approaches**

*Questions as follows will be categorized into two types, Product A and Product B, which are the representative products of market-driven product and driving-market product. Questions related with each product will be in four areas, which are emphasis on customer, importance of information, inter-functional coordination and take action.*

**Product A (suppose it is a market-driven product)**

**Emphasis on customer**

1. Before you develop Product A, do you consider the customers’ needs? What is the aim of knowing their needs?
2. How do you think of the importance of customers’ needs?
3. How do you know customers’ needs? After knowing what they need, how does customers’ needs influence the new product? Could you specify?

**Importance of information**

1. When you develop Product A, do you collect competitors’ information, such as their strengths and weaknesses? Do you make up competitors’ weaknesses and improve in your product?
2. Besides competitor information, what other information do you collect in NPD, such as competitor’s supplier information, market information related with the policy?

**Inter-functional coordination**

1. After you collect all the information of customers, competitors and so on, will you spread the information among different departments in the firm? Do you think this will improve the NPD? How does it improve NPD?
2. For Product A, do you put market department in the central place among all departments? Does it take the responsibility of all other departments in the NPD?
3. Could you tell us more about inter-functional coordination during development of Product A?

Take action

1. After diffuse the information among departments, what will you do next? Do all the departments cooperate together to select the appropriate market, design, produce, promote and distribute products?

2. What other actions do you take?

3. When you feel the information is not enough for NPD, will you go back to collect customers, competitors and other information, and do the inter-functional coordination once again?

Now we have talked about Product A, let’s come to Product B.

Product B (suppose it is a driving-market product)

Emphasis on customer

1. Before you develop Product B, do you want to know the customers’ latent needs besides their current needs? Do you consider creating the customers’ needs?

2. How do you get the deep insight of customers’ latent needs? What is the aim of knowing customers’ latent needs or creating their needs?

3. After knowing what they need, how does customers’ latent needs influence the new product? Could you specify?

Importance of information

1. When you develop Product B, do you collect competitors’ information, such as their strengths and weaknesses? Do you consider to set up alliance with one or more competitors in order to develop leading product in the market?

2. Besides competitor information, what other information do you collect in NPD, such as competitor’s supplier information, market information related with the policy?

Inter-functional coordination
1. After you collect all the information of customers, competitors and so on, will you spread the information among different departments in the firm? Do you think this will improve the NPD? How does it improve NPD?

2. For Product B, do you put technology department in the central place among all departments? Does it take the responsibility of all other departments in the NPD?

3. Could you tell us more about inter-functional coordination during development of Product B?

Take action

4. After diffuse the information among departments, what will you do next? Do all the departments cooperate together to select the appropriate market, design, produce, promote and distribute products?

5. What other actions do you take?

6. When you feel the information is not enough for NPD, will you go back to collect customers, competitors and other information, and do the inter-functional coordination once again?

Thanks for your participation indeed!