Market Oriented New Product Development Process: a Case Study

Nunes M¹, Afonso P²

Abstract For many industries, the development of new products is the most important factor in sustaining the success once achieved. The emphasis on development of new products has spurred researchers from strategic management, engineering, marketing and other disciplines to study the process of new product development. In recent years, new product development (NPD) process became more strategic and market oriented. Market orientation is moving from the traditional market-driven to the new driving-market approach. Such approach asks for a different leadership of the NPD process, higher coordination amongst departments (marketing, sales, accounting and engineering areas) that may share common concerns, objectives and tools during the NPD process. While these changes often pose conflicting demands on the firm, there is a growing body of evidence that the firm may employ strategies to successfully meet their objectives. The conceptual framework presented in this article was tested through an exploratory case study developed in a manufacturer of refrigerators and other refrigeration equipment for domestic, commercial and professional use. Some findings were obtained from the analysis of the data. Essentially, market-driven and driving-market approaches are different in terms of customer and competitor orientation as well as inter-functional coordination.

Keywords: New product development; Market orientation; Case study

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1 Introduction

The role of the marketing function has evolved from only performing tactical marketing tasks to infusing a marketing capability into the organization’s core business processes (Jaakkola et al., 2009). Extensive research shows that the infused marketing function is an essential and natural part in the firms’ new product development (NPD) today (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. 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.

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). Based on this, NPD becomes a complex and multifunctional process, including concurrent marketing, engineering, cross-functional working, advanced tools, early involvement etc. (Baker and James, 2005). The general perspectives of NPD are often stated to be R&D, marketing, and manufacturing (Kohn, 2006).

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. 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.

2 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 (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 (Deshpand. et al., 1993; Narver et al., 2004), while not excluding those of all other stakeholders such as owners, manag-
ers, and employees, in order to develop a long-term profitable enterprise (Deshpand. et al., 1993). Since then, market orientation has been studied both as a cultural phenomenon, and a set of behaviours and active 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).

During the development of a market orientation, some scholars put the emphasis on certain perspective around cultural and behavioural 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), analysing and evaluating of market information, and using the information throughout the organization (take response of the information) (Jaakkola et al., 2009; Song et al., 2009).

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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 behaviour (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’ on-going 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, 1994). 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 (Beverland et al., 2006).

Besides, according to Kumar et al. (2000), a firm 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 that underlies market-driving firms. 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 (Mavondo et al., 2005). 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. 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.

An innovation based upon market pull has been developed by the R&D function in response to an identified market need (Mavondo et al., 2005). 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.

### 3 How Market Orientation Influences 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.

3.1 Identifying Customers’ Needs

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 (Akgun et al., 2006). 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). Even in those instances where latent needs are uncovered by the firm, there is still no active attempt to create or change behaviours 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). For driving-market approach, market orientation includes development of capabilities in market sensing and customer linking (Day, 1994), which led 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 and tomorrow’s customers will (Hamel and Prahalad, 1994). Furthermore, firms using driving-market approach tend to change the rules of the “games”, or create new customers/markets (Hamel and Prahalad, 1994).

3.2 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 behaviour 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.

### 3.3 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 departments might 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, 1994). Neither technology nor marketing can be the sole departure point for creating new competitive space (Ibid). Consistent with Narver and Slater’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 and Wang, 2010). Creative new ideas and innovations usually come from interactions among people
Therefore, technology and marketing need to be well co-ordinated 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, 1994). 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, 2005) 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 (Swink and Song, 2007), 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).

4 A 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 1) is built up. This model will be used in the empirical part of the article. Following the model, authors will explicitly elaborate how the model is formulated and the interaction of different parts.

![Fig. 1 The conceptual framework of how market orientation is carried out in NPD](image-url)
Lafferty and Hult (2001, p. 100) stated that 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) inter-functional coordination of marketing activities and relationships; and (4) being responsive to market activities by taking the appropriate action. 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 behavioural approaches share the notion that the consumer is central in the manifestation of market orientation. Second area is the importance of shared knowledge (information). The information here contains customers, competitors, supply chain partners, and environmental trends information (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. 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.

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 these four areas is related to the NPD process in which market orientation is carried out. Authors formulate a chain-linked process with feedback loops to describe the sequence and interaction of these 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. In order to help with in responding to how market orientation affects NPD, the authors formulated one tool (see Table 1).
Table 1 Four areas’ effect on NPD related with driving market-driven and driving-market approaches

<table>
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<tr>
<th>Four areas</th>
<th>Market-driven</th>
<th>Driving-market</th>
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<tr>
<td>Identifying customers’ needs</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>
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<tr>
<td>Collecting information</td>
<td>Information based on the understanding of the strengths and weaknesses of firms’ competitors, and information from monitoring competitors’ actions and investigating competitors’ supply-chain partners (Laffery and Hult, 2001).</td>
<td>Requires further information by shaping the behaviour of competitors (e.g. firms set the alliances, and cooperate with competitors) (Sarasvathy, 2001), and by changing the structure of industry (Jaworski et al., 2000).</td>
</tr>
<tr>
<td>Inter-functional coordination</td>
<td>Makes the market department take the responsibility for all departments in the organization (Kohli and Jaworski, 1990).</td>
<td>Technology department plays a much more important role (Kumar et al., 2000). Early manufacturing inputs could stifle creative ideas (Swink and Song, 2007).</td>
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<tr>
<td>Taking action</td>
<td>All departments need to be responsive, such as designing, producing, promoting and distributing products (Kohli and Jaworski, 1990).</td>
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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 the product.

5 Case Study

5.1 Research Method

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 (Yin, 1994). Therefore, this study draws on a qualitative research.

Considering the one single company of this study, Freeze Industry SA, it is pertinent to speak of a case study. Case study is an approach that 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). 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, Freeze Industry SA is a small and medium enterprise that has its own marketing department and NPD department. Moreover, Freeze Industry SA 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 Freeze Industry SA before. The project that related to Freeze Industry SA European market helped authors understand Freeze Industry SA and triggered authors’ interest to do further research with Freeze Industry SA. Finally, since Freeze Industry SA 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 based on the theoretical framework. The data was mainly obtained from the interviewees with the Sales responsible, Marketing manager, I&D responsible and other managers. During 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). 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. 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 analyse 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 was simplified so that the interviewee can understand easily. Meanwhile, the interview guide was formulated according to the theoretical review and conceptual framework, and it is corresponding with the research question. Moreover, the company was willing to do the research with authors, which ensures the data that authors get can be highly reliable. In order to improve the reliability of data, authors transcribed and find the coherence of the data. In addition, the paper was returned to the company for examination. Consequently, the reliability and validity in this study can be considered as acceptable.

5.2 Company Description

Freeze Industry SA is a Portuguese family company dedicated to the manufacture of refrigerators and other refrigeration equipment for domestic, commercial and professional use. Freeze Industry SA was started in 2008 and resulted from two firms with twenty years of experience which were leaders in their respective markets. Freeze Industry SA fulfils all of the demands included in the ISO 9001:2008 Standard for quality, and OSHAS 18001 for work safety, highlighting a high commitment to product and service quality as well as the well-being of all collaborators.

This company aims to consolidate its leadership in the Portuguese market and distinguishing itself as one of the principal manufacturers of refrigeration products at European and World levels. Freeze Industry intends to be a reference in the refrigeration sector, through the recognition of its technical and service provision capacity. Technically, production flexibility and reduced delivery time are strong points in the service provided by the firm.

The company’s strategy is focused on emerging markets, especially Africa, through the creation of conditions for direct distribution to their clients. It also focuses on commercial and professional refrigeration and the ever-increasing projection of its brand, Freeze, in the markets where it is present; particularly, in their main markets which are Africa, Europe and the Arab world. To support this strategy, new and modern facilities (namely a new production plant) were constructed in the North of Portugal.

Recently, Freeze Industry SA concluded an investment of 22.6 million Euros to expand the production capacity. This expansion will allow the group to increase exportations, reinforce sales of its own brand and launch new brands in the market.

This investment is part of an operational restructuring of Freeze Industry SA, which involved the closing of two factories, whose activity was transferred to the
new facility. The two companies produced 150 thousand units per year and this new facility will produce between 640 to 650 thousand units per year.

5.3 Products

The company produces chest freezers, combined refrigerators/freezers, refrigerators and upright freezers. Among others, the main products of this company are the following: chest and upright freezers, refrigerators, wine coolers and other cooling.

The design of new products and a constant strategic market analysis are fundamental to support Freeze’s strategy. The company offers products recognised for their excellent value for money and technical service in the all markets were they are present in. This implies an intense effort in the development of solutions that are adapted to their clients’ needs and with performance characteristics that should fit the diverse and demanding clients around the world.

On the other hand, beyond the common refrigerators and freezers, the company develops, produces and commercializes more sophisticated products such as wine coolers, refrigeration units for the pharmaceutical industry and commercial and professional refrigeration systems. Recently, the company is focus on chest freezers of high-energy efficiency. These new products should be recognized by their high-energy efficiency associated with design. For example, minimalist but sturdy lines influenced by the current tendencies are under development. All these are very innovative products developed to provide a vast array of solutions anticipating market demand.

6 Analysis of Findings

In this company, the Strategic Marketing Manager is responsible for the market analysis, competitor analysis, brand management and communication. According to him Freeze Industry SA is a company dedicated to the manufacture of refrigeration appliances for domestic, commercial and professional use with “a very large range of products like vertical refrigerators, chest freezers, upright freezers, ice cream chest freezers and wine coolers. We have product files of all categories”.

In the case of Freeze Industry, their efforts to design a new innovative product of high-energy efficiency (an A+++ product) show how different the market-driven and driving-market approaches are different. These differences are summarized in Table 2 and they can be expressed in the abovementioned three domains: customer orientation, competitor orientation and inter-functional coordination.
Table 2: Findings summary

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<th>Market-driven</th>
<th>Driving-market</th>
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<td></td>
<td>(The traditional approach)</td>
<td>(The new A+++ product)</td>
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<tr>
<td>Identifying customers’ needs</td>
<td>- Led by clients</td>
<td>- Led by Marketing department/CEO</td>
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<td>- Through the eyes of clients and</td>
<td>- Through direct data from consumers and</td>
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<td>business partners</td>
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<td>Collecting information</td>
<td>- Led by Sales department</td>
<td>- Led by Marketing department</td>
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<td>- Using common suppliers and</td>
<td>- New sources of information are</td>
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<td>common clients to obtain</td>
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<td>information about competitors</td>
<td>- Through a benchmarking exercise of</td>
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<td>- Using free available data</td>
<td>the competitors</td>
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<td>Inter-functional coordination</td>
<td>- Led by I&amp;D department</td>
<td>- Leadership is not clear and it may</td>
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<td>- Reduced and late internal</td>
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<td>inter-functionality</td>
<td>remains central</td>
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<td>- Reduced clients’ and suppliers’</td>
<td>- The NPD process turns more complex</td>
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<td>contribution</td>
<td>with more and earlier contributions</td>
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6.1 Customer Orientation

The company has a geographic segmentation with its main markets in Africa, Europe and Arab World. The firm segments its products-markets in these terms because these markets have needs that are completely different. Traditionally, Freeze Industry follows a market-driven approach. According to the Sales manager “production system is very flexible permitting several product combinations” and they “are able to adapt easily their products to market needs”. Thus, their NPD has been essentially reactive and pushed by their clients’ suggestions and by client’s perceptions of customers’ needs. The firm makes some incremental improvements in their products - “usually the company reacts to the market” (C&D Responsible). Their clients have also suggested new product lines. For instance, “the client asked for a new line of products with 60 cm doors and we developed an entire line of these products” (C&D Responsible). Other examples can be given (e.g. a special line of small freezers). Nevertheless, the new product (an A+++ freezer) intends to anticipate market needs, clients requests and competitors solutions and it is pushed in a different manner. Firstly, this a new product aligned with strategic and technological objectives and the CEO putted it in the NPD agenda. Thus it is pushed by the inside of the company, the marketing department assumes the leadership in terms of costumer analysis and intends to collect direct data and to use information from market studies. It is a completely different approach.
6.2 Competitor Orientation

Freeze Industry SA makes a regular estimation of competitors’ costs and product attributes through reverse engineering. Furthermore, they analyse competitors’ activities according to mutual suppliers and mutual customer’s information. Competitors’ strategies, technologies and market approaches recognized as cost-effective are analysed, particularly “competitors strategies and product technologies” (Strategic Manager). Strategic Manager stated that they “have a sales and marketing department with that responsibility. […] We purchase competitor new products to study their structure and technology. […] We have competitor monitorization in world shows and exhibitions”. According to the Strategic Manager, they consider this competitor information when making product/service decisions “very important for […] decisions [in terms of] costs and product structure. However, the driving-market orientation asks for a different approach, internally pushed and conducted. New sources of information are needed and consultants’ advice may be important. The company recognizes that they must collect information directly from their clients and that there is necessary a benchmarking exercise of the direct competitors. On the other hand they consider important to collect information on European and national programs for energy efficiency. The marketing department now conducts all this process.

6.3 Interfunctional Coordination

Finally, inter-functional coordination has been led by the I&D department because the NPD process is centred on the I&D department. Clients contribute in the beginning of the process with their suggestions and the “voice of the customer” and receive feedback just in the end of the NPD process (after product industrialization). Just a very few number of suppliers may contribute to the NPD (and those are usually moulding and materials suppliers). The other departments of the company collaborate in the end of the NPD process (after product development). Purchasing and production are asked to participate just in the product industrialization stage, before the first production series. Assuming a driving-market perspective, the leadership of the process is not clear and it may be shared. Nevertheless, the role of I&D department remains central. The NPD process turns more complex with more and earlier external and internal contributions, i.e. from suppliers and from the other departments. The CEO approval is very important and he should validate the initial production cost estimation. A target costing could be followed to deal with this augmented complexity but it is not a possibility in this case.
7 Conclusion

Regarding how market orientation is carried out in NPD, the analysis 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. How market orientation affects NPD in the enterprise is explored from these steps towards two approaches. Under each step, the specific content in market-driven product and driving-market product is different. 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.

A number of managerial implications arise from the findings either NPD is 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 puts the emphasis on meeting customers’ current needs, monitoring competitors’ actions. While for driving-market product, it requires the firm has a view of the 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 obtain the maximum cooperation.

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 products, do these characters relate with the industries’ features, or do they only depend on the product’s features? Are 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.
8 References


