

## Market Orientation's Neglected Role in Marketing Exploitation and Exploration Tradeoffs

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### Info Article

#### History Article:

Submitted

Revised

Accepted

#### Keywords:

Marketing Strategy 1;

Market Orientation 2;

Complementary; 3; New

Product 4.

### Abstract

The goal of marketing exploitation methods, sometimes referred to as marketing exploration, can be to increase the company's knowledge and capabilities or to improve its current capabilities. According to a study on organisational strategy and learning, using both strategies can compromise each company's operational processes and harm its financial success. Market organisation, in our opinion, facilitates the flow of market information between the two strategy processes, integrates the two strategies by acting as a dynamic market, and aids businesses in integrating marketing exploitation and exploration strategies. Using complementary high-level marketing exploration and marketing exploitation strategies, companies with strong market orientation can improve the financial performance of new products, as measured at two different points in time, according to a study of the packaged food industry in Indonesia. However, as the trade-off foresees, businesses with a poor market orientation are unable to benefit from these techniques.

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## **Peran Orientasi Pasar yang Terabaikan dalam Eksploitasi Pemasaran dan Pengorbanan Eksplorasi**

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### **Abstrak**

*Tujuan dari metode eksploitasi pemasaran, terkadang disebut sebagai eksplorasi pemasaran, dapat berupa peningkatan pengetahuan dan kemampuan perusahaan atau untuk meningkatkan kemampuannya saat ini. Menurut sebuah studi tentang strategi dan pembelajaran organisasi, penggunaan kedua strategi tersebut dapat membahayakan proses operasional setiap perusahaan dan membahayakan kesuksesan keuangannya. Organisasi pasar, menurut pendapat kami, memfasilitasi aliran informasi pasar antara dua proses strategi, mengintegrasikan kedua strategi dengan bertindak sebagai pasar yang dinamis, dan membantu perusahaan dalam mengintegrasikan strategi eksploitasi dan eksplorasi pemasaran. Dengan menggunakan strategi eksplorasi pemasaran dan eksploitasi pemasaran tingkat tinggi yang saling melengkapi, perusahaan dengan orientasi pasar yang kuat dapat meningkatkan kinerja keuangan produk baru, yang diukur pada dua titik waktu yang berbeda, menurut sebuah studi tentang industri makanan kemasan di Indonesia. Namun, seperti yang diperkirakan, perusahaan dengan orientasi pasar yang buruk tidak dapat mengambil manfaat dari teknik-teknik ini..*

**Kata Kunci:** Strategi Pemasaran; Orientasi pasar; Komplementer; Produk baru

## PENDAHULUAN

A key issue in the literature is how successful organisations learn when they exploit existing knowledge and skills as opposed to exploring new knowledge and skills (March, 1991).

A long research tradition suggests that these two strategies conflict for three reasons. Firstly, learning theorists have shown that exploitation strategies tend to limit the amount of exploration of the firm (March, 1991). Second, exploitation and exploration strategies often compete for limited firm resources and are associated with conflicting organisational structures and cultures. As a result, firms that implement either strategy are perceived as unfocussed and lacking good internal fit (Miller & Friesen, 1986). Third, according to contingency theorists, businesses should utilise one of these strategies to improve fit with the external environment (Galbraith, 1973; Lawrence & Lorsch, 1967).

Despite criticisms, Levinthal and March (1993, p. 105) believe that companies should take part in both strategies. They state that organisations that engage exclusively in exploration will usually suffer because the knowledge they acquire is never utilised.

Organisations that engage only in exploitation will usually experience obsolescence. The main problem facing an organisation is to do enough exploitation to ensure current survival and devote enough resources to exploration to ensure future survival.

It is difficult to find the ideal mix of exploitation and exploration for survival because of the need for balance.

Similarly, Lewin and Volberda (1999, p. 523) note: These processes are not necessarily contradictory. Organisations must learn how to make use of both because both are useful. To follow this advice, research in various fields has recently concentrated on whether businesses can achieve complementary strategies. To achieve dynamic equilibrium (also known as the "basis of chaos") in product innovation, Brown and Eisenhardt (1997) propose a semi-structured, time-paced approach.

In the same way, combining exploration and exploitation is essential for testing dynamic or combinative capabilities (Grant, 1996; Kogut & Zander, 1992; Teece, Pisano, & Shuen, 1997). Experts often look at the degree of congruence

between new products and previous actions in the product development literature (Henard & Szymanski, 2001; Montoya-Weiss & Calantone, 1994; Moorman & Miner, 1997; Song & Parry, 1997).

However, the endeavour to create complementarity by balancing exploitation and exploration remains a challenge and is usually achieved on a project-by-project basis depending on the level of uncertainty (Olson, Walker, & Ruekert, 1995). Given this, further conceptual treatment and empirical research is needed to build a complementary strategic learning approach.

We show in this literature that a business' market orientation can effectively drive synergies between explorative and exploitative marketing strategies.

A firm's market orientation is described as: (1) a belief that prioritises customer service and value creation for customers (Deshpande', Farley, & Webster, 1993; Homburg & Pflesser, 2000; Ruekert, 1992); (2) a set of organisational procedures used to generate, disseminate, and respond to information about current and future customer needs (Kohli & Jaworski, 1990; Narver & Slater, 1990; Slater & Narver, 1999); and (3) the ability to forecast market needs earlier than competitors and build strong relationships with consumers, channel members, and suppliers (Day, 1994).

According to this perspective, an organisation's market orientation reduces the tension between exploration and exploitation strategies and opens up opportunities for cross-fertilisation and complementary learning.

Theories of proactive (focusing on latent customer needs) or reactive (focusing on customer needs) market orientation seem to contradict this approach.

Menurut beberapa pakar manajemen strategis, berorientasi pasar akan mencegah perusahaan mengikuti perkembangan teknologi baru dan kebutuhan pelanggan yang muncul karena mengunci perusahaan pada pelanggan saat ini. (Christensen & Bower, 1996; Hamel & Prahalad, 1991).

Others argue that market orientation benefits businesses constantly changing (Slater & Narver, 1999, p. 1168) and future studies should look at how market orientation, entrepreneurship, and

organisational learning relate (Hult & Ketchen, 2001, p.905).

To settle this debate, we say that market orientation is customer-focused only and does not lead firms to act proactively or reactively. Instead, we situate a firm's exploitation or exploration marketing strategy within market orientation, so that we can understand how market orientation impacts the combined impact of exploitation and exploitation.

We begin by providing further explanation of the characteristics of exploitation and exploration marketing, then provide evidence of the tension between these two strategic approaches. We then discuss how a firm's market orientation reduces this tension when using both strategies in a single product development project. After that, we show evidence of our ideas in the Indonesian packaged food industry.

## LITERATURE REVIEW

### 2. Exploitation and exploration marketing strategies

#### 2.1 Marketing Strategy Learning Approach

We think that strategies related to product development activities may be the level at which decision makers can overcome the impacts associated with relying on prior knowledge. We also focus on strategy decisions typically associated with marketing functions or tasks, such as decisions about product markets involving targeting, segmentation, and positioning, or decisions about the marketer's mix.

While we recognise that there is often no clear distinction between exploitation and exploration strategies in marketing, we also argue that exploitation strategies tend to place the most dominant focus.

Therefore, marketing exploitation strategies largely focus on enhancing and improving capabilities and techniques associated with existing marketing strategies, such as market segments, positioning, distribution, and other marketing mix strategies. If a company improves all of these things simultaneously, its marketing exploitation rate will be higher than if the company makes only one improvement.

Therefore, the exploitation approach utilises the firm's current learning curve by strengthening current procedures. (March, 1991), core competences (Prahalad & Hamel, 1990), and capabilities (Collins & Montgomery, 1995; Leonard-Barton, 1992).

The experience curve, where firms generate low prices through cumulative production, is an example of a pure exploitation strategy. These strategies are also known as adaptive learning (Slater & Narver, 1995) and single loop systems (Argyris & Schön, 1978).

Marketing exploration, on the other hand, has been referred to as generative learning (Slater & Narver, 1995) and double loop system (Argyris & Schön, 1978). Exploratory marketing strategy mainly uses challenging methods to interact with the market, such as segmentation, positioning, product, channel, and other marketing mix strategies. It may include some elements of existing strategies. The degree of marketing exploration is determined by the total impact of these changes; if a company does all of these simultaneously, its degree of marketing exploration will be higher.

In the product development literature, previous classifications of project novelty or radicality of innovation are related to our notions of marketing exploitation and exploration. According to Heinard and Szymanski (2001, p. 364), marketing synergy is the fit between existing marketing capabilities and the business and marketing capabilities needed to successfully launch a new product initiative. The concept is comparable to marketing exploitation and exploration, which typically capture the degree of fit between old and new skills. However, there are three significant differences.

First, we do not concentrate on whether the implemented strategy enhances (exploits) or alters the previous marketing approach; we concentrate on the proposed skills.

Secondly, while a singular focus on the level of synergy necessitates a trade-off between enhancing existing skills or acquiring new skills, the use of the two notions and their associated measures allows businesses to try both approaches. Our main thesis is this, and the next section elaborates on it.

Thirdly, and most importantly, some might suggest that marketing exploitation or exploitation should be conceptualised and measured by looking at how similar or changed the target segment, positioning, product, or channel is. Assuming that

new segments, etc., are inherently more exploratory, and current segments, etc., are inherently more exploitatively active.

Alternative perspectives from organisational learning (e.g., Huber, 1991; March, 1991; Slater & Narver, 1995) and capabilities literature (e.g., Day, 1994; Leonard-Barton, 1992; Prahalad & Hamel, 1990) suggest that the type of learning should be decided based on whether the firm relies on its current knowledge and skills or has to acquire new knowledge and skills. Think about a company targeting a new segment using its existing skills and knowledge to achieve it, to see the difference. Is this business engaged in exploration or exploitation? If the new segment allows the business to enhance or perfect existing skills, the company will be more likely to exploit knowledge and skills.

Therefore, our understanding of marketing exploitation and exploration is based on the resource-based perspective of the firm, which posits that resources are a composite of knowledge, skills, and habits (Amit & Schoemaker, 1993; Day, 1994; Leonard Barton, 1992; Peteraf, 1993; Rumelt, Schendel, & Teece, 1991). More importantly, we are talking about how to use the company's specialised resources (Mahoney & Pandian, 1992) and at the same time develop new capabilities to adapt to change (Barney, 1991; Wernerfelt, 1984). The notion of dynamic capabilities enables the development of new capabilities by utilising existing internal and external firm-unique capabilities (Teece et al., 1997, p. 515; Eisenhardt & Martin, 2000). We view a firm's market orientation as a dynamic capability that enables the firm to explore and exploit its existing skills and knowledge. We will highlight this further.

## 2.2 Tension in Marketing Strategy

According to many organisational studies, there is a tension between companies that attempt exploitation and companies that conduct high-level exploration. At first, exploitation may limit exploration. In particular, relying on established routines may hinder adaptation to new situations (Cyert & March, 1992) and inhibit the ability to understand new strategic options (Day, 1999).

Leonard-Barton (1992) describes this as a paradox: core capabilities can enhance product development, but can also turn into core rigidities, which inhibit innovation. Levitt and March (1988)

refer to this tendency as the competence trap. Levinthal and March (1993) refer to it as the success trap. In both cases, competence-based exploitation allows firms to build on existing expertise and generate gains from exploration, which is further and wider than the locus of action and adaptation (March, 1991, p. 73).

Secondly, due to exploitation, businesses can concentrate on lesser routines because the initial choice and the associated revenue stream appear more favourable than unchosen or unstudied choices. (Her Riott, Levinthal, & March, 1985).

Levinthal and March (1993) note that, in general, short-term positive feedback associated with exploitation or exploration can lead to learning traps. This is especially true when firms adjust to successful exploitation or exploration, and they tend to ignore the balance between the two approaches.

Third, exploration is likely to have an impact on the efficiency of the company as it involves experimentation and often new approaches. Short-term exploration costs tend to be high because firms act without prior experience (Hutt, Reingen, & Ronchetto, 1988).

According to Levinthal and March (1993), exploratory firms may experience failure, which is when they spend too much time searching for and experimenting successful strategies and not enough time exploiting what they have learnt.

Fourth, according to contingency theory, business strategies should be adjusted to the degree of environmental uncertainty (Lawrence & Lorsch, 1967). Firms in stable markets should rely on current knowledge and skills and run a more mechanistic organisation, whereas firms in volatile markets should develop new knowledge and skills (Olson et al., 1995; Ruekert, Walker, & Roering, 1985).

The absence of internal congruence in executing both strategies is the topic of our final argument. For example, business and marketing strategists have described businesses that combine both strategies as centres (Kotler, 1994, p. 85), stuck-in-the-middle (Porter, 1980, p. 41), breakers (Mile, Snow, Meyer, & Coleman, 1978, p. 557), and companies that do not really excel at anything (Miller & Friesen, 1986, p. 42). Given this tension, Bierly and Chakrabarti (1996, p. 124-125) think it is difficult to succeed in both because, in addition to limited resources, this type of learning usually

requires different organisational structures and organisational cultures for each organisation.

### 2.3 Marketing Strategy Combination

Despite these tensions, both theoretical treatments (e.g., Levinthal & March, 1993; Lewin & Volberda, 1999) and business press advice (e.g., Markides, 1999) suggest that businesses should undertake both exploitation and exploration to increase their chances for long-term survival.

In response, only two papers studying the combination of exploitation and exploration were found. In their study of the pharmaceutical industry, Bierly and Chakrabarti (1996) say that businesses with high levels of radical and incremental learning generate higher return on sales, but further examination shows that such businesses do not track exploitation activities.

In their study of the computer industry, Eisenhardt and Tabrizi (1995) talk about how businesses can utilise experiential strategies when innovating. They say that this strategy requires quick intuition and flexibility to learn quickly and adapt to uncertain environments. Since uncertainty can create paralysing anxiety about the future, it is also important to build a foundation and encourage speed under these conditions. (Eisenhardt & Tabrizi, 1995, p. 91).

Exploration and exploitation align with this combination of structure and uncertainty; however, their empirical research uses indirect methods. For example, they assess the number of design iterations a product development team undertakes, the time spent on testing during the development process, the time between milestones, and the power of the project leader to assess strategy.

Other studies have also considered the possibility of combining the two strategies. For example, firms may execute each strategy at different points in time (Tushman & Anderson's interrupted equilibrium model, 1986), in different business units (Mintzberg, 1979), or for different marketing tasks, such as marketing research, sales and distribution, and advertising and promotion (Ruekert et al., 1985). None of these studies, however, empirically examined how firms can profitably utilise both approaches within a single business unit during the execution of the same project.

The following section argues that both types of high-level marketing strategies used in the same

product development project can mutually benefit and reinforce each other. We suggest, using complementary concepts, that the level of market orientation of an enterprise will determine whether marketing exploitation (marketing exploration) increases the profits associated with marketing exploitation (marketing exploration) in a project. This approach of determining firm-level factors that moderate project-level variables is quite common among studies that try to see how firms can successfully undertake marketing exploration (Sethi, 2000; Sethi, Smith, & Park, 2001; Troy, Szymanski, & Varadarajan, 2001).

Moreover, meta-analyses show how project- and firm-level factors are integrated, which offers an important perspective for the advancement of theory and practice (Gerwin & Barrowman, 2002; Henard & Szymanski, 2001; Montoya-Weiss & Calantone, 1994).

## 3. Marketing Strategy Complementarity

The value of an asset or activity depending on the value of another asset or activity is called complementarity. As stated by Milgrom and Roberts (1990, p. 514). One of the distinctive features of complementarity is that if the level of a subset of activities is increased, then the marginal benefit of an increase in any or all of the remaining activities will increase. (Dierickx & Cool, 1989; Milgrom & Roberts, 1995; Moorman & Slotegraaf 1999). Therefore, complementarity of marketing strategies occurs when the profit from marketing exploitation (marketing exploitation) increases when both are present.

### 3.1 Peran Orientasi Pasar

According to the literature, market orientation can be defined as: (1) a unifying frame of reference or firm-level beliefs that emphasise customer service (Deshpande et al., 1993; Homburg & Pflesser, 2000) or creating value by understanding the latent needs and requirements of buyers (Narver & Slater, 1990; Slater & Narver, 1999); (2) a set of organisational procedures used to generate, disseminate, and respond to information about current and future customer needs (Jaworski & Kohli, 1993; Kohli & Jaworski, 1990; Kohli, Jaworski, & Kumar, 1993); and (3) the firm-level ability to link the business with the outside world and enable the business to compete by anticipating market needs before competitors and by building strong

relationships with customers, channel members, and suppliers (Day, 1994).

While exploitation and exploration seem to have a strong relationship with each other, there are several reasons why they are different. Firstly, market orientation is a firm-level trait, whereas exploitation and exploration are project-level strategies. Therefore, we argue that a firm's market orientation creates an environment in which project-level marketing strategies can pollinate a wider range of sequences with the aim of producing better results.

Consistent with this, Slater and Narver (1995) argue that market orientation sets the standard for learning from competitors and customers, but that it differs from generative or adaptive learning approaches.

Second, as we will discuss, none of the current market or customer perspectives implicitly focus on exploitation or exploitation. Therefore, this component must be considered along with other strategic components in our company and model (Day, 1999; Slater & Narver, 1999). Now each perspective on market orientation is talked about the possibility that they can complement each other.

### 3.1.1 Unifying Terms of Reference

Market orientation provides a comprehensive way to understand and comprehend marketing exploration and exploitation, which is one important way in which it helps marketing strategies to be complementary. Consistent with this, Slater and Narver (1995) argue that market orientation sets the standard for learning from competitors and customers, but it differs from generative or adaptive learning approaches. This framework centres on the common goal of serving customers, which increases the likelihood that the insights, information and processes associated with one strategic approach facilitate another. In practice, this might occur when marketing exploitation gathers information about customers for use in product development, or when exploration gathers information about customers to enhance exploitation efforts in the current business domain. The unified emphasis on customer service in both situations allows team members to interpret exploitation and exploration activities so that they can cross-pollinate.

There is strong support for the idea that a common frame of reference can help businesses

manage diverse and even conflicting strategies and information. Fiol (1994) found that the launch of a new business by a large financial services firm relied heavily on the ability of the new venture team to reach agreement on how to frame disparate information (Frankwick, Ward, Hutt, & Reingen, 1994). Dougherty (1990, p. 73) also found that companies that had developed a cognitive framework called market definition were examples of successful project teams.

A unified focus on customers also reduces the two tensions between exploitation and exploitation. Firstly, keep in mind that companies using exploitation strategies tend to be highly focussed and rigid.

Therefore, these businesses may not realise the changing needs of customers. In a market-oriented business, customer-focused goals weaken this tendency because these goals constantly encourage project teams to think about new customers and new ways to satisfy existing customers.

Therefore, the company may not realise the changing needs of customers. Market-orientated businesses with customer-focused objectives weaken this tendency because these objectives constantly encourage project teams to find new customers and new ways to satisfy existing customers. (Bierly & Chakrabarti, 1996). Therefore, strong explorers often pave the way for imitators who outperform them (Levinthal & March, 1993; Teece, 1986).

In market-oriented businesses, a unified focus on customer outcomes increases the likelihood that project teams will work hard to discover new knowledge derived from research and development that can be commercialised.

### 3.1.2 Organisation-wide Information Process

The acquisition, distribution, and utilisation of information about customers can also be considered as market orientation (Jaworski & Kohli, 1993; Kohli & Jaworski, 1990; Kohli et al., 1993). We think about market orientation as a way to exploit marketing and marketing exploration strategies. As mentioned earlier, organisation-wide market information processes ensure that customer insights generated from exploitation are distributed to parts of the organisation so that they can leverage them for innovation.

In addition, market-focused organisational processes reduce the likelihood of learning traps occurring during exploitation or exploration (Levinthal & March, 1993). In particular, organisational processes for acquiring and distributing market information ensure that strategies remain more responsive to inputs, experiences, and initiatives made by managers in different functions (e.g., Kohli & Jaworski, 1990; Narver & Slater, 1990).

### 3.1.3 Dynamic Market Connectivity

The ability of organisations to integrate, build, and reconfigure internal and external competencies to cope with rapidly changing environments is a major concern of strategy researchers (Teece et al., 1997, p. 517). We see from this perspective several ways complementary marketing strategies can be implemented. Firstly, customer goals and information will be the same if outside-in processes inform and guide other processes. Second, market-orientated businesses must systematically link exploitation and exploration strategies to determine the most effective and efficient ways of connecting with customers.

Winter and Szulanski (2001) investigated the replication approach to strategy. They show that this method, which involves creating and operating many similar stores to produce a standardised product, actually requires a strong exploratory effort to find and develop the best business model. Compared to more traditional balance sheet assets, researchers are more likely to concentrate on the collection, mobility, and dissemination of knowledge and skills because of the focus on the dynamic capabilities of the firm (Srivastava, Shervani, & Fahey, 1998, 1999).

Day (1994) stated market orientation as a constantly changing firm-level capability to link the firm to its external environment. He distinguishes inward-looking capabilities (market sensing, customer relationships, and channel tie-in capabilities) from outward-looking capabilities (cost control, financial management, technology development, human resource management, and manufacturing processes). Day also suggests that a set of capabilities that includes (strategy development, product development, pricing, purchasing, and customer order fulfilment) should also be integrated into. According to Day (1994, p.41), market-driven organisations have strong

market sensing, customer relationship, and channel tying capabilities. He also states that the knowledge gained from these processes should be communicated and guided by the encompassing and inside-out capabilities.

We see from this point of view several ways complementary marketing strategies can be implemented. Firstly, customer goals and information will be the same if the inside-out process informs and guides other processes. Second, market-orientated businesses should systematically link exploitation and exploration strategies to determine the most effective and efficient ways of connecting with customers. For example, Winter and Szulanski (2001) investigated the replication approach to strategy. They show that this method, which involves creating and operating many similar stores to produce standardised products, actually requires a strong exploratory effort to find and develop the best business model.

One of the inside-out capabilities of a company is market sensing. According to Day (1994, p. 43), market sensing involves the ability of an enterprise to learn about its channel members, customers, and competitors in order to observe and act according to trends and events occurring in current and prospective markets. Day states that market sensing facilitates the acquisition and interpretation of incoming market information through organisational memory, i.e. mental models and stored knowledge. Upon seeing the results, an organisation disseminates and uses this information to facilitate strategic actions, then evaluates those actions and updates its organisational memory.

This view of the market sensing process provides several opportunities to consider how market orientation can aid complementary marketing exploitation and exploration. First, project teams can use existing organisational memory to make sense of incoming market information. This provides a level of structure for exploration. This structure can interfere with new discoveries (Leonard Barton, 1992; Moorman & Miners, 1997). However, everyone agrees that structure is important for innovation. Senior management control, prioritisation, and strategic vision have been described as helping product teams avoid failure and stay focused on innovative goals (Imai, Nonaka, & Takeuchi, 1985). chaos and delay state (Weick, 1993).



Second, memories of existing organisations can aid exploration by increasing the chances of innovation. According to the classic research of Pasteur, Cohen and Levinthal (1994, p. 227), luck favours companies that are already prepared. Meanwhile, according to Powell and Brantley (1992, p. 368), innovation is based on existing knowledge. Cohen and Levinthal (1990) found that the current R&D knowledge structure increases absorptive or innovation capacity. In addition, Pennings and Harianto (1992) found that banks' current technological knowledge and habits predict banks' propensity to develop new ways to use videotext.

Finally, Hutt et al. (1988) stated that shared knowledge structures increase the level of creative endeavour for new products (see also Madhavan & Grover, 1998; Moorman & Miner, 1997).

### 3.2 Predictions

In summary, the research suggests that attempts to combine marketing exploitation and exploration strategies in a single product development project are necessary; however, there are tensions within them. We suggest that a firm's market orientation can aid their complementarity by providing a common frame of reference focused on customer goals, facilitating organisation-wide processes that enable the flow of market information between the two strategies, and serving as a dynamic market link that integrates the two strategies during the project.

Since a key characteristic of complementarity is the increased profit gained from joint efforts in two activities (Moorman & Slotegraaf, 1999), we concentrate on the financial performance of marketing exploitation and marketing exploration in the project. In particular, we examine the financial performance of new products resulting from the project.

Since the main characteristic of complementation is the increase in profits gained from joint efforts in two activities (e.g., Moorman & Slotegraaf, 1999), we concentrate on the financial performance of marketing exploitation and marketing exploration within the project. Specifically, we examine the financial performance of new products resulting from the project:

**H1:** Firms that implement sophisticated marketing exploitation and marketing exploration strategies

will have strong new product financial performance during high market orientation.

**H2:** Companies that implement high levels of marketing exploitation and marketing exploration strategies will have poor new product financial performance when market orientation is low.

## METHODS AND ACTIONS

### 4.1 Research Arrangements

A random sample of 500 companies in the food processing industry (i.e., packaged food manufacturers) in Indonesia was selected, and the result is a comprehensive list of Indonesian companies. A total of 340 firms were sampled after 120 firms not involved in product development (distributors and retailers) were eliminated. Our choice to select a single industry limits the generalisability of our results, but this choice also reduces the problems that arise when selecting a sample of firms from multiple industries. In particular, different industries raise different sources of variance, so many inter-industry factors are needed to account for forecast heterogeneity (Bass, Cattin & Wittink, 1978).

In addition, although the level of research and development in the food industry is relatively low, product innovation and market orientation are increasingly important for growth and profitability. This is due to the biotechnological revolution, food safety concerns, nutritional quality issues, and the new science of variety-seeking customer behaviour (Alfranca, Rama, & von Tunzelmann, 2002; Traill & Meulenberg, 2002).

However, we must recognise that, compared to highly innovative sectors such as electronics and pharmaceuticals, the food industry has only a moderate level of innovation (Alfranca et al., 2002). Key information was selected from the head of marketing of each business unit. They also received questionnaires, letters, and financial incentives and requests for participation. If informants returned the business card containing the completed questionnaire, they were promised to receive a summary of the results. A reminder postcard with a duplicate questionnaire was sent three weeks after the first mailing. Those who did not respond were contacted by phone two weeks after the second mailing and asked to complete and return the questionnaire. Concerns about non-response bias were alleviated as a chi-square difference test

found no systematic differences between those who responded before and after the second mailing. (Armstrong & Overton, 1977). Comparing early respondents (ER) with late respondents (LR), no differences were found: financial performance during the first year (ER=4.66, LR=4.50,  $t(83)=0.47$ , ns), marketing exploitation (ER=3.60, LR=3.58,  $t(91)=0.08$ , ns), marketing exploration (ER=2.56, LR=2.46,  $t(91)=0.69$ , ns), market orientation (ER=4.92, LR=5.13,  $t(83)=0.47$ , ns), and firm resources (ER=4.48, LR=4.16,  $t(91)=0.92$ , ns). Of the 340 respondents, 96 returned the questionnaire for a response rate of 28.3%.

One year later, the 96 respondents were sent a questionnaire focusing on the financial performance associated with the project. This letter generated 75 responses for a response rate of 78%.

There were no systematic differences between companies responding to the first mailing (FM,  $n=96$ ) and companies responding to the second mailing (SM,  $n=75$ ): financial performance during the first year (FM=4.56, SM=4.76,  $t(84)=0.41$ , ns), marketing exploitation (FM=3.64, SM=3.57,  $t(91)=0.36$ , ns), marketing exploration (FM=2.54, SM=2.40,  $t(91)=0.69$ , ns), market orientation (ER=4.99, LR=5.23,  $t(83)=1.04$ , ns), and firm resources (FM=4.27, SM=4.72,  $t(91)=1.05$ , ns). Based on these results, we are not concerned about selection bias.

Information was provided to concentrate on product development projects that have been completed in the last twelve months. Although one might argue that product development is an exploratory approach, the fact is that many of the products that result from development involve line extensions or simple product enhancements that target current markets using the firm's current position and channels (Booz, Allen, & Hamilton, 1982; Griffin, 1997).

This seems to indicate that product development is one area where the impact of exploration and exploitation can be observed. As assessed by respondents, product development results in different types of projects. When asked to specify the characteristics of the project, 17% stated that it was a new product with a new market, 24.5% stated that it was a new product line, 38.3% stated that it was an addition to an existing product, 9.6% stated that it was a repositioning of an existing product, and 10.6% stated that it was a refinement of an existing

product. We divided our project into various categories, like another study on food company innovation (Hultink, 1997).

One year later, the 96 people who responded were given a questionnaire focusing on the financial performance of the project. This letter received 75 responses, with a response rate of 78%. According to Henard and Szymanski's (2001) meta-analysis, subjective measures of product innovation have a similar impact on new product performance compared to objective measures.

## 4.2 Measurement

### 4.2.1 Marketing Strategy Approach

We created formative and reflective measurement approaches because there is no literature available to measure marketing exploitation and exploration strategies. In the structural model, arrows move from constructs to indicators for formative and reflective scales, and from constructs to indicators for reflective scales in the formative approach (Diamantopoulos & Winklhofer, 2001).

Marketing exploitation and exploration are formative because strategy is caused by exploitation or exploration in each strategic marketing decision (e.g. segmentation, positioning). Therefore, we first came up with 16 indicators that can shape the strategy approach. These were presented to academic experts who would assess their accuracy and representativeness. Using the feedback, we revised the items to improve their clarity and provided them to 10 marketing managers whose responses were used for further modifications.

In the final step, informants were instructed to consider how their divisions plan and execute product development projects. Using our focus derived from the organisational learning and capability literature, our measure examined the project team's reliance on new or current knowledge, skills, and procedures rather than just the novelty of marketing strategies. To evaluate marketing exploitation, informants were asked to rate the extent to which, bDuring this project, we improved our previous skills and procedures with respect to each of the following areas. Exploitation is measured as a double improvement in marketing skills and procedures because the focus of exploitation is not only on whether a firm utilises its existing marketing strategies, but whether the

resulting skills and procedures are improved (March, 1991). Areas of evaluation include: targeting and segmentation, product positioning and differentiation, product distribution, product design, product quality, pricing, and promotion.

These areas fit our domain as they address strategic-level activities and focus on important marketing-related activities in the project.

Informants were then asked to evaluate the marketing exploration by assessing the extent to which, during this project, we challenged and/or changed our previous thinking with respect to each of the following areas.

These areas also included: targeting and segmentation, product positioning and differentiation, product distribution, product design, product quality, pricing, and promotion. Although it is possible to evaluate marketing exploration by assessing the extent to which skills and procedures are changed, based on the literature, we consider the most fundamental form of marketing exploration to be challenging mental models of the firm's interaction with the market (Argyris & Schön, 1978; Day & Nedungadi, 1994; Slater & Narver, 1995).

Moreover, early tests showed that managers tend to undervalue market exploration if it builds even indirectly on a small amount of the firm's existing skills which is usually the case even in the most innovative forms of exploration (Nelson & Winter, 1982).

Managers also tend to see new behaviours as exploratory, when they are only a small extension of their current approach. Using criteria that challenge and/or change our previous thinking gives managers a clearer basis for evaluating exploration, which reduces both of these tendencies.

#### 4.2.2 Financial Performance Results Considered

our interest in complementary marketing strategy approaches, we measure the financial performance of product development activities at two different points in time. The financial performance of the new product during the first year examines the new product's sales results, market share, and profit margins relative to the firm's main competitors during the first year after launch.

The financial performance of the new product during the second year examines the same results during the second year after launch. Measuring

performance as the success of a company relative to its most competitive competitors removes the variance and distortions created by product/market differences.

#### 4.2.3 Market Orientation

Market orientation was measured using Jaworski and Kohli's (1993) 20-item scale validated in Kohli et al. (1993). Although the debate on the measurement of market orientation continues (Deshpande, 1999), we believe that this scale utilises the mechanisms we theorise, including the unifying frame of reference of market orientation, the related information processing and utilisation activities inherent to the measurement of market orientation, and the dynamic capabilities view of market orientation. Moreover, previous research has concluded that the scales are essentially interchangeable (Deshpande, 1999).

Finally, given that we used key informants, it was impossible to measure all forms of market orientation despite our desire to do so.

#### 4.2.4 Control Variable

We control for the size of the business unit's resource level to rule out the possibility that large size contributes to complementarity. This is measured by asking informants to compare their research and development resources with those of competitors. We also control for the type of product development project on an ordinal scale ranging from completely new products and new markets, new product lines, additions to existing lines, enhancements to existing products, repositioning of existing products, and existing products produced at a lower cost.

We also collected information to account for other competing explanations, including four different measures of organisational culture and three forms of environmental turbulence. We did not include these measures in the final model, as their inclusion did not change our results, did not contribute to the explanatory power of the model, and the ratio of sample size to parameter estimates was not optimal when they were included.

#### 4.2.5 Common Method Bias Test

Since the dependent and independent variables were obtained from one key informant, we tested for common method bias using Harman's one-factor test (see Podsakoff & Organ, 1986). The results of the principal component factor analysis

showed seven factors with eigenvalues greater than 1.0, which corresponded to the seven variables in our model (i.e., marketing exploitation, marketing exploration, market orientation, financial performance during the first year, financial performance during the second year, firm resource level, and project type).

In addition, since the results show that there is no common factor in the unrotated factor structure, there does not seem to be a common method bias problem. We also performed the same test on pairs of independent and dependent variables and always found that the test resulted in two distinct factors.

### 4.3 Purification Measure

Two types of analyses were used to purify the scales. For our formative scales (exploitation and exploration marketing strategies), we followed the recommendations of Bollen and Lennox (1991) and Diamantopoulos and Winklhofer (2001) to test indicator collinearity and external validity. Indicator collinearity is important because it affects the stability of indicator weights derived from principal component models (Diamantopoulos & Winklhofer, 2001). To assess item collinearity, we ran a regression analysis of all items (as independent variables) on each item (dependent variable), and we found that three items (product quality, price, and promotion) had high multicollinearity with the product positioning item. According to convention (Bollen & Lennox, 1991; Diamantopoulos & Winklhofer, 2001), these three items were removed.

We also assessed external validity or nomological validity by testing the correlation of our remaining items with two sets of variables that are different, yet theoretically related to, our marketing strategy approach. First, we measured firms' innovation strategy by asking informants to rate the extent to which their firms are first in new market areas. Consistent with our expectations, the marketing exploration indicators are all positively correlated with firm innovation strategy (qN0.15, pb0.05), whereas the marketing

exploitation indicators are not correlated with firm innovation strategy (qb0.12, ns). Second, we measured project-level memory by asking informants to rate the extent to which the team relied on well-defined procedures for this project (Moorman & Miner, 1997).

Consistent with our expectations, project-level memory was positively correlated with the marketing exploitation indicator (qN0.16, pb0.10) but not with the marketing exploration indicator (qb0.13, ns).

Turning to the reflective scales, we first ran two confirmatory factor models—one for market orientation and another for the two financial performance outcomes. We encountered some problems in the market orientation scale due to its length (Bagozzi & Baumgartner, 1994) and reverse-scored items (Herche & Engelland, 1996). Following Grewal and Tansuhaj (2001), we removed items with large modification indices (see Appendix). This action did not appear to reduce the coverage of the domain. Overall, the results show adequate levels of fit for the market orientation model ( $\chi^2(62)=93.3$ , NNFI=0.89, CFI=0.94, SRMR=0.077, RMSEA=0.064) and the financial performance model ( $\chi^2(24)=108$ , NNFI=0.90, CFI=0.91, SRMR=0.065, RMSEA=0.10). The latter has a smaller sample size as it uses longitudinal data. In addition, the average variance extracted by each measure exceeded the recommended limits (Bagozzi & Youjae, 1988), which together with the high reliability demonstrated by all three measures (see Table 1).

We conducted a final set of analyses to assess the discriminant validity of the formative and reflective scales. Since the literature is silent.

How to assess the discriminant validity between the two scales, we decided to follow conventional tests (Steenkamp & van Trijp, 1991). Checking first the correlation matrix (Table 1), the correlations did not seem to indicate any discriminant validity issues. We then paired each marketing strategy approach all other variables used in our model in a series of two-factor models using LISREL 8.3 (Joreskog & Sorbom, 1999). Each model was run twice, first restricting correlations

**Tabel 1**  
**Measuring Characteristics and Correlation Matrix**

	Mean	s.d.	1	2	3	4	5	6
1. Marketing exploitation strategies	3.60	0.67						
2. Marketing exploration strategies	2.49	0.77	0.26*					
3. Market orientation	5.03	0.87	0.34*	0.10	(0.82)			
4. New product financial performance during year one	4.59	1.50	0.21*	-0.12	0.34*	(0.88)		
5. New product financial performance during year two	4.71	1.31	0.15	-0.05	0.27*	0.62*	(0.84)	
6. Firm resource level	4.33	1.46	-0.02	0.07	0.17*	0.24*	0.21*	

between the two latent variables to unity and then liberate these parameters. The results provide evidence of discriminant validity. Discriminant validity is also demonstrated by the fact that all  $B[\phi]$  are statistically different from 1 (Anderson & Gerbing, 1988). Finally, following Fornell and Larcker (1981), we find that the average variance extracted for each construct (the two marketing strategy approaches, market orientation, and both new product performance outcomes) is higher than the squared correlation between the construct and any other construct.

#### 4.4 Analysis Approach

To test the moderating effect of market orientation on marketing complementary exploitation and exploration strategies, we utilised two tests. First, we use a three-step hierarchical linear regression model with the financial performance of new products during the first or second year as the dependent variable.

Step 1 contains two marketing strategies, market orientation, and control variables (firm-level resources and project type). Step 2 contains two interaction directions of marketing exploitation and marketing exploration, marketing exploitation and market orientation, and marketing exploration and market orientation. Finally, Step 3 contains three-way interactions of marketing exploitation, marketing exploration, and market orientation. All variables are centred on crime before forming interactions to avoid multicollinearity. The variance of the inflation factor was estimated to check the level of collinearity and found to be below the dangerous level (Mason & Perreault, 1991). Following standard practice, interactions are only considered if the change associated with the interaction is highly significant.

Second, planned contrasts consistent with our predictions were then used to test the three-way interaction in more depth using procedures

recommended by Aiken and West (1991), Irwin and McClelland (2001), and Jaccard, Turrissi, and Wan (1990).

## RESULTS

### 5.1 Regression Results

#### 5.1.1 Effect of Financial Performance During the First Year

Results showed that the predictors of Step 1 accounted for a significant amount of variance in financial performance ( $R^2 = 0.18$ ,  $F(5,78) = 3.38$ ,  $pb0.05$ ). Step 2 results were not significant ( $\text{Change-}F(8,75) = 0.37$ , ns). Step 3 results involving the three-way interaction of marketing exploitation, marketing exploration, and market orientation were significant ( $\text{Change-in-}F(9,74) = 5.09$ ,  $pb0.05$ ). Two simple effects were significant in the final model-market orientation ( $b = 0.49$ ,  $pb0.05$ ) and marketing exploration ( $b = 0.50$ ,  $pb0.05$ )-as well as the predicted three-way interaction of marketing exploitation, marketing exploration, and market orientation ( $b = 0.58$ ,  $pb0.05$ ).

#### 5.1.2 Financial Performance Impact During Year Two

Turning to financial performance during the second year and using the same model testing approach, the results show that the Step 1 predictors account for a significant amount of variance ( $R^2 = 0.13$ ,  $F(5,63) = 1.88$ , ns). The results of step 2 involving two-way interactions were not significant ( $\text{Change } F(7,61) = 0.87$ , ns). Step 3 involving the introduction of the three-way interaction of marketing exploitation, marketing exploration, and market orientation was significant ( $\text{Changein-}F(9,59) = 5.64$ ,  $pb0.05$ ). There were two significant simple effects-marketing exploration ( $b = 0.33$ ,  $pb0.10$ ) and project type ( $b = 0.72$ ,  $pb0.05$ )-

and the interaction of marketing exploitation and market orientation ( $b=0.77$ ,  $pb0.05$ ). The three-way interaction of marketing exploitation, marketing exploration, and market orientation ( $b=0.58$ ,  $pb0.05$ ) was also significant.

We completed the test of the general model by examining whether our results varied when we relied on the three aspects of market orientation - intelligence generation, intelligence dissemination, and market responsiveness. The results from Step 3 show that the three-way interaction remains significant for all three dimensions on both types of performance.

Finally, given our reliance on the limited version of the MARKOR scale, we also ran the same regression analyses using the full scale. These findings are consistent with the results of our regression analyses described above.

## 5.2 Post Hoc Investigation of Significant Three-way Interactions

### 5.2.1 General Modelling Approach

We used the procedures recommended by Aiken and West (1991), Irwin and McClelland (2001), and Jaccard et al. (1990) that kept the data in its original continuous form. As noted by Irwin and McClelland (2001, p. 106), the spotlight focused on the model from different angles using the statistical spotlight technique in turn allows for a deeper understanding of the relationship between different levels and combinations of independent variables to the dependent variable.

The advantage of this procedure is twofold - they do not reduce the statistical power and they reduce the likelihood of spurious relationships (Irwin & McClelland, 2001).

Starting with our regression model, we summarise: financial performance during the first year or two (performance), marketing exploitation (exploit), marketing exploration (explore), and market orientation (markor).

$$\begin{aligned} \text{Performance} = & b_1\text{exploit} + b_2\text{explore} + b_3\text{markor} \\ & + b_4\text{exploit*markor} \\ & + b_5\text{exploit*explore} \\ & + b_6\text{explore*markor} \\ & + b_7\text{exploit*explore*markor} + b_0 \end{aligned}$$

Since we have two marketing strategies, we conducted this post hoc investigation using either exploitation or exploration as the starting place. To simplify our description, we focus here on the change in exploitation level. The results show the

same pattern of results regardless of the starting place.

The investigation involved three steps (see Aiken & West, 1991, pp. 56-58). First, we created a high level of exploitation two standard deviations above the mean-centred main effect. Using this high level of exploitation, we re-estimate our model and check the importance of the exploration-market orientation interaction ( $b_6$ ). This tells us whether there is a simple interaction between exploration and market orientation at times of high exploitation. Results show that the interaction is significant for financial performance measures during year one ( $b=1.11$ ,  $pb0.01$ ) and year two ( $b=0.60$ ,  $pb0.10$ ).

Furthermore, given this significant interaction, we turn our attention to the effect of changing the level of market orientation. Given our already high level of exploitation, we created a high level market orientation two standard deviations above the mean-centred main effect and re-estimated the model. This approach allows us to examine whether, for firms with high market orientation, exploration improves performance when exploitation increases to already high levels. Therefore, the focus is now on the effect of exploration ( $b_2$ ). Results show that  $b_2$  is positive and significant for both performances during the first year ( $b=1.21$ ,  $pb0.05$ ) and the second year ( $b=0.48$ ,  $pb0.10$ ). This means that for companies with high levels. From market orientation, exploration has a positive impact on performance when exploitation is high. This result supports H1. We complete our post hoc investigation in step three by testing the effect of exploration when exploitation is high and market orientation is low. This allows us to examine whether, for a low market orientation firm, an increased level of exploration harms performance when exploitation is already high. To check this, we construct a low level of market orientation (two standard deviations below the mean-centred main effect) and re-estimate the model. Results show that  $b_2$  is now negative and significant for financial performance during year one ( $b=2.66$ ,  $pb0.01$ ) and year two ( $b=1.59$ ,  $pb0.05$ ). This means that for firms with a low level of market orientation, exploration has a negative effect on performance when exploitation is high. This result supports H2 and suggests that firms with low market orientation do not optimise performance when

they pursue both exploitation and exploration strategies.

## DISCUSSION

The purpose of our study is to determine whether a firm's market orientation affects the extent to which project-level marketing exploitation and exploration strategies can work together to improve the financial performance of new products. The results of our study support the idea that market-orientated firms can derive significant benefits by implementing both high-level strategies in product development. We now talk about our results to extend the literature, provide recommendations for future research, and explain the limitations of the study.

### 6.1 Theoretical Implications

We find that firms with high market orientation can indeed do better at exploitation and exploration than other firms. Our findings challenge traditional theories of business strategy and marketing strategy, which argue that firms should not exploit and explore at the same time as there are considerable losses to synergies and environmental fit.

Therefore, this study combines previous research with some literature that proposes a more complex, dynamic and paradoxical perspective of strategy (Brown & Eisenhardt, 1997; Quinn, 1988; Weick, 1993). This new view argues that strategic fit does not occur due to choosing one strategy, but due to the coexistence of extremes and duality of strategies. It is not the midpoint between one extreme and the other that is created by this duality of coexisting tensions, as stated by Eisenhardt (2000, p. 703). Managing this duality requires innovative approaches to address the tension that captures both sides.

In addition, our findings are related to research on product development, which has investigated the function of marketing synergy and market orientation (such as Atuahene Gima, 1995; Danneels & Kleinschmidt, 2001; de Brentani, 1995; Henard & Szymanski, 2001; Song & Parry, 1997). While this research provides important insights into the role of each factor separately, our findings extend this research by providing an overview of more dynamic strategies within the same product development project. In addition, our research focuses on the relationship between new product

strategy and the firm's knowledge and skills-not just the most recent marketing strategy.

Research on the role of competencies (Prahalad & Hamel, 1990) and capabilities (Day, 1994) is influenced by our work. It also impacts the theoretical basis of the broader resource-based view (Barney, 1991; Slotegraaf, Moorman, & Inman 2003; Wernerfelt, 1984).

According to this research, dynamic capabilities can be built by leveraging existing skills and developing new skills (Teece et al., 1997), but our study is the first to look at this issue in the context of marketing strategy and determine the overall organisational components that help firms integrate this strategy.

We also found that Slater and Narver's (1999) provocative defence of the market orientation literature influenced our results. By pointing out that market orientation can be either generative or adaptive, some studies equate market orientation with customer-led firms, which are reactive and focused on meeting established customer needs (e.g., Chris Tensen & Bower, 1996). Their findings do not contradict our approach. However, we do not place emphasis on exploitation and exploration within market orientation itself in our research.

Instead, we distinguish these components so that we can understand how market orientation affects the adaptive or generative nature of business strategies.

According to our research, standards do not cause marketing myopia because they cater to both clear and unclear customer needs. Instead, standards create an environment in which member firms can integrate marketing strategies. Market orientation also appears to increase a firm's choices by incorporating the best business opportunities of each marketing strategy into the firm's mind. Finally, a company can use market orientation to reconfigure and integrate the knowledge generated from both strategies to meet current and future customer needs because the company has the ability to dynamically observe and relate to market changes.

We found that most businesses do not balance exploitation and exploration approaches, a finding that will expand research in the organisational domain. A firm's market orientation is one of the critical elements in organisational design. The information we provide shows how businesses can improve their ability to achieve this important balance. The rhythmic switching between

mechanical and organic structures was demonstrated in previous research describing bambidextrous firms (Tushman & O'Reilly, 1996).

One important component that drives this type of integration is market orientation. We find that simultaneously exploiting and exploring is problematic for most organisations - in particular, under conditions of low market orientation - and our findings suggest that high levels of exploitation and exploration lead to poorer financial performance, although we extend this literature.

Finally, our study provides two methodological advantages not found in previous research on marketing, strategy and organisation. First, our paper is one of the few that seeks to study exploitation and exploration empirically. Second, our longitudinal approach also addresses some of the method issues associated with cross-sectional research.

## 6.2. Future research directions and limitations of the study

Future research should look deeper into how market orientation shapes the complementarity we observed in our study. We believe that market orientation works through several mechanisms, and future research can confirm that this works.

In addition, research could investigate the balanced cultural, structural and resource properties of organisations. For example, paradoxical firms seem to balance conflicting values, such as creativity and efficiency, according to Quinn (1988, p. 78). Abell (1999) proposed that firms should have the ability to manage multiple strategies by assigning leadership responsibility for each strategy, iterative planning processes (both short- and long-term), and control mechanisms to oversee performance and progress towards strategic goals.

Future research can also learn more about the nature of the firm. The influence of market orientation on complementary marketing exploration and exploitation may be explained by differences in firm resources.

In particular, richer firms have the resources to build market orientation and are also able to exploit and explore simultaneously. Our study controls for firms' research and development resources which are an integral part of product development. In addition, to rule out whether differences in firm resources affect the exploitation-exploration interaction in the same

way as market orientation, we re-estimate a three-step hierarchical regression model that uses firm resources instead of market orientation. Results show no evidence of a three-way interaction of marketing exploitation, marketing exploration, and firm resources for performance during year one ( $b=0.10$ , ns) or year two ( $b=0.02$ , ns).

It is also possible to consider how features associated with a new product project may impact the degree of trade-off or synergy. For example, the extent to which the project receives top management support may impact on how well the organisation achieves exploitation-exploration synergies. Our data includes how innovative product development projects are for the company. However, follow-up tests examining the three-way interaction between marketing exploitation, marketing exploration, and project type showed no effect on performance during year one ( $b=0.20$ , ns) or year two ( $b=0.28$ , ns).

Research could also examine the extent to which our findings can be generalised to other countries, to other industries, and to other corporate activities. As our sample is limited to a number of Indonesian companies, it would be interesting to test whether our results cover different cultures. Similarly, there may be industries where exploration is a more common strategy, such as high-tech industries. So, we caution that our results do not necessarily cover these industries. In these industries, not only is the mix of exploitation and exploration different, the content of these two strategies is also different.

In particular, bear in mind that while we focus on marketing exploitation and exploration, high-tech firms tend to focus on technology exploitation and exploration.

Finally, our reliance on primary data leaves room for future research to utilise secondary data. For example, the use of secondary data to measure project novelty or financial performance could alleviate concerns that managers overvalue their firms' innovation and project success. The challenge of course is finding secondary data at the business unit level.

## CONCLUSIONS

We find that market orientation is one of the critical firm-level factors that enables the strategies of high-level marketing exploitation-meaning leveraging current knowledge and skills-and



marketing exploration-meaning developing new knowledge and skills-to be used profitably by the firm. We argue that market orientation has this effect by providing a frame of reference that focuses on customer goals, easing the processes across the organisation that create market information flows between the two strategies, and serving as a means of connecting the dynamic markets that integrate the two strategies within the organisation. As our research on product development activities in the packaged food industry in Indonesia shows, companies that have a strong market orientation can utilise marketing exploitation and marketing exploration strategies at a complementary project level, which is reflected in the improved financial performance of new products. Firms that do not have a strong market orientation exhibit the conflicts already in the previous literature.

## REFERENSI

- Abell, D. (1999). Competing today while preparing for tomorrow. *Sloan Management Review*, 40(Spring), 73 – 82.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression*. Newbury Park, CA7 Sage.
- Alfranca, O., Rama, R., & von Tunzelmann, N. (2002). A patent analysis of global food and beverage firms: The persistence of innovation. *Agribusiness*, 18(Summer), 349 – 458.
- Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14(January), 33 – 46.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411 – 423.
- Argyris, C., & Schfn, D. A. (1978). *Organizational learning: A theory of action perspective*. Reading, MA7 Addison-Wesley.
- Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, 14(August), 396 – 402.
- Atuahene-Gima, K. (1995). The influence of new product factors on export propensity and performance: An empirical analysis. *Journal of International Marketing*, 3(March), 11 – 28.
- Bagozzi, R. P. (1994). Structural equation models in marketing research: Basic principles. In R. Bagozzi (Ed.), *Principles of marketing research* (pp. 317 – 385). Oxford7 Blackwell Publishers.
- Bagozzi, R. P., & Baumgartner, H. (1994). The evaluation of structural equation models and hypothesis testing. In R. Bagozzi (Ed.), *Principles of marketing research* (pp. 386 – 422). Oxford7 Blackwell Publishers.
- Bagozzi, R. P., & Youjae, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(Spring), 74 – 94.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99 – 120.
- Bass, F. M., Cattin, P., & Wittink, D. (1978). Firm effects and industry effects in the analysis of market structure and profitability. *Journal of Marketing Research*, 15(February), 3 – 10.
- Bierly, P., & Chakrabarti, A. (1996). Generic knowledge strategies in the U.S. pharmaceutical industry. *Strategic Management Journal*, 17(Winter Special), 123 – 135.
- Booz, Allen, & Hamilton (1982). *New product management for the 1980's*. New York7
- Booz, Allen & Hamilton. Bollen, K., & Lennox, R. (1991). Conventional wisdom on measurement: A structural equation perspective. *Psychological Bulletin*, 110(2), 305 – 314.
- Brown, S. L., & Eisenhardt, K. M. (1997). The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly*, 42(March), 1 – 34.
- Christensen, C. M., & Bower, J. L. (1996). Customer power, strategic investment, and the failure of leading firms. *Strategic Management Journal*, 17(March), 197 – 218.
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(September), 128 – 152.
- Cohen, W. M., & Levinthal, D. A. (1994). Fortune favors the prepared firm. *Management Science*, 40(February), 227 – 252.
- Collins, D. J., & Montgomery, C. A. (1995). Competing on resources: Strategy in the 1990s. *Harvard Business Review*, 73(July/August), 118 – 128.

- Cyert, R. M., & March, J. G. (1992). *A behavioral theory of the firm (2nd ed.)*. Oxford: Blackwell.
- Danneels, E., & Kleinschmidt, E. J. (2001). Product innovativeness from the firm's perspective: Its dimensions and their relation with project selection and performance. *Journal of Product Innovation Management*, 18(November), 357 – 372.
- Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, 8(October), 37 – 52.
- Day, G. S. (1999). *The market-driven organization*. New York: The Free Press.
- Day, G. S., & Nedungadi, P. (1994). Managerial representations of competitive advantage. *Journal of Marketing*, 58(April), 31 – 44.
- de Brentani, U. (1995). New industrial service development: Scenarios for success and failure. *Journal of Business Research*, 32(February), 93 – 103.
- Deshpande, R. (1999). *Developing a market orientation*. Thousand Oaks, CA: Sage Publications.
- Deshpande, R., Farley, J. U., & Webster Jr., F. E. (1993). Corporate culture, customer orientation, and innovativeness in Japanese firms: A quadrat analysis. *Journal of Marketing*, 57(Jan.), 23 – 37.
- Diamantopoulos, A., & Winklhofer, H. M. (2001). Index construction with formative indicators: An alternative to scale development. *Journal of Marketing Research*, 38(May), 269 – 277.
- Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 12(December), 1504 – 1511.
- Dougherty, D. (1990). Understanding new markets for new products. *Strategic Management Journal*, 11, 59 – 78.
- Eisenhardt, K. M. (2000). Paradox, spirals, and ambivalence: The new language of change and pluralism. *Academy of Management Review*, 25(October), 703 – 706.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10/11), 1105 – 1121.
- Eisenhardt, K. M., & Tabrizi, B. N. (1995). Accelerating adaptive processes: Product innovation in the global computer industry. *Administrative Science Quarterly*, 40(March), 84 – 110.
- Fiol, M. C. (1994). Consensus, diversity, and learning in organizations. *Organization Science*, 5(August), 403 – 420.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(February), 39 – 50.
- Frankwick, G. L., Ward, J. C., Hutt, M. D., & Reingen, P. H. (1994). Evolving patterns of organizational beliefs in the formation of strategy. *Journal of Marketing*, 58(April), 96 – 100.
- Galbraith, J. R. (1973). *Designing complex organizations*. Reading, MA: Addison-Wesley.
- Gerwin, D., & Barrowman, N. J. (2002). An evaluation of research on integrated product development. *Management Science*, 48(July), 938 – 953.
- Grant, R. M. (1996). Prospering in dynamically-competitive environments: Organizational capability as knowledge integration. *Organization Science*, 7(July–August), 375 – 387.
- Grewal, R., & Tansuhaj, P. (2001). Building organizational capabilities for managing economic crisis: The role of market orientation and strategic flexibility. *Journal of Marketing*, 65(April), 67 – 91.
- Griffin, A. (1997). The effect of project and process characteristics on product development cycle time. *Journal of Marketing Research*, 34(February), 24 – 35.
- Hamel, G., & Prahalad, C. K. (1991). Corporate imagination and expeditionary marketing. *Harvard Business Review*, 69(July/ August), 81 – 92.
- Henard, D. H., & Szymanski, D. M. (2001). Why some new products are more successful than others. *Journal of Marketing Research*, 38(3), 362 – 375.
- Herche, J., & Engelland, B. (1996). Reversed-polarity items and scale unidimensionality. *Journal of the Academy of Marketing Science*, 24(Fall), 366 – 374.
- Herriott, S. R., Levinthal, D., & March, J. G. (1985). Learning from experience in organizations. *American Economic Review*, 75(2), 298 – 302.

- Homburg, C., & Pflesser, C. (2000). A multiple-layer model of market-oriented organizational culture: Measurement issues and performance outcomes. *Journal of Marketing Research*, 37(November), 449 – 462.
- Huber, George P. (1991). Organizational learning: The contributing processes and the literatures. *Organization Science*, 2(February), 88 – 115.
- Hult, G. T. M., & Ketchen Jr., D. J. (2001). Does market orientation matter?: A test of the relationship between positional advantage and performance. *Strategic Management Journal*, 22(September), 899 – 906.
- Hultink, E. J. 1997. *Launch strategies and new product performance: An empirical international study*. Doctoral dissertation, Technical University of Delft, Delft, NL.
- Hutt, M. D., Reingen, P., & Ronchetto Jr., J. R. (1988). Tracing emergent processes in marketing strategy formation. *Journal of Marketing*, 52(January), 4 – 19.
- Imai, K., Nonaka, I., & Takeuchi, H. (1985). Managing the new product development process: How Japanese firms learn and unlearn. In K. Clark, R. Hayes, & C. Lorenz (Eds.), *The uneasy alliance* (pp. 337 – 376). Boston: Harvard Business School.
- Irwin, J. R., & McClelland, G. H. (2001). Misleading heuristics and moderated multiple regression models. *Journal of Marketing Research*, 38(February), 100 – 109.
- Jaccard, J., Turrissi, R., & Wan, C. K. (1990). *Interaction effects in multiple regression*. Newbury Park, CA: Sage Publications.
- Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing*, 57(July), 53 – 70.
- Jöreskog, K. G., & Sörbom, D. (1999). *LISREL 8.3 and PRELIS 2.30*. Chicago: Scientific Software International, Inc.
- Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, 3(August), 383 – 397.
- Kohli, A. K., & Jaworski, B. J. (1990). Market orientation: The construct, research propositions, and managerial implications. *Journal of Marketing*, 54(April), 1 – 18.
- Kohli, A. K., Jaworski, B. J., & Kumar, A. (1993). MARKOR: A measure of market orientation. *Journal of Marketing Research*, 30(November), 467 – 477.
- Kotler, P. (1994). *Marketing management: Analysis, planning, implementation, and control* (8th ed.). Prentice Hall International Editions.
- Lawrence, P. R., & Lorsch, J. W. (1967). *Organization and environment: Managing differentiation and integration*. Homewood, IL: Irwin.
- Leonard-Barton, D. (1992). Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal*, 13(Summer), 111 – 125.
- Levinthal, D. A., & March, J. G. (1993). The myopia of learning. *Strategic Management Journal*, 14(Winter), 95 – 112.
- Levitt, B., & March, J. G. (1988). Organizational learning. *Annual Review of Sociology*, vol. 14 (pp. 319 – 340). Palo Alto: Annual Review.
- Lewin, A. Y., & Volberda, H. W. (1999). Prolegomena on coevolution: A framework for research on strategy and new organizational forms. *Organization Science*, 10(Sept./Oct.), 519 – 534.
- Madhavan, R., & Grover, R. (1998). From embedded knowledge to embodied knowledge: New product development as knowledge management. *Journal of Marketing*, 62(October), 1 – 12.
- Mahoney, J. T., & Pandian, J. R. (1992). The resource-based view within the conversation of strategic management. *Strategic Management Journal*, 13(June), 363 – 380.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(February), 71 – 87.
- Markides, C. C. (1999). A dynamic view of strategy. *Sloan Management Review*, 40(3), 55 – 63.
- Mason, C. H., & Perreault, W. D. (1991). Collinearity, power, and interpretation of multiple regression analysis. *Journal of Marketing Research*, 28(August), 268 – 280.
- Mile, R. E., Snow, C. C., Meyer, A. D., & Coleman Jr., H. J. (1978). Organizational strategy, structure, and process. *Academy of Management Review*, 3(July), 546 – 562.

- Milgrom, P., & Roberts, J. (1990). The economics of modern manufacturing: Technology, strategy, and organization. *American Economic Review*, 80(June), 511 – 528.
- Milgrom, P., & Roberts, J. (1995). Complementarities and fit: Strategy, structure, and organizational change in manufacturing. *Journal of Accounting and Economics*, 19, 179 – 208.
- Miller, D., & Friesen, P. H. (1986). Porter's generic strategies and performance. *Organization Studies*, 7, 37 – 56.
- Miner, A., Bassoff, P., & Moorman, C. (2001). Organizational improvisation and learning: A field study. *Administrative Science Quarterly*, 46(June), 304 – 337.
- Mintzberg, H. (1979). *The structuring of organizations: A synthesis of the research*. Englewood Cliffs, NJ: Prentice-Hall.
- Montoya-Weiss, M., & Calantone, R. (1994). Determinants of new product performance: A review and meta-analysis. *The Journal of Product Innovation Management*, 11(November), 397 – 418.
- Moorman, C. (1995). Organizational market information processes: Cultural antecedents and new product outcomes. *Journal of Marketing Research*, 32(August), 318 – 335.
- Moorman, C., & Miner, A. S. (1997). The impact of organizational memory in new product performance and creativity. *Journal of Marketing Research*, 34(February), 91 – 106.
- Moorman, C., & Slotegraaf, R. J. (1999). The contingency value of complementary capabilities in product development. *Journal of Marketing Research*, 36(May), 239 – 257.
- Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing*, 20(October), 20 – 35.
- Nelson, R., & Winter, S. (1982). *An evolutionary theory of economic change*. Cambridge, Boston, MA: Harvard University Press.
- Olson, E. M., Walker Jr., O. C., & Ruekert, R. (1995). Organizing for effective new product development: The moderating role of product innovativeness. *Journal of Marketing*, 59(January), 48 – 62.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(Winter), 531 – 544.
- Pennings, J. M., & Harianto, F. (1992). The diffusion of technological innovation in the commercial banking industry. *Strategic Management Journal*, 13(January), 29 – 46.
- Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, 14(March), 179 – 191.
- Porter, M. E. (1980). *Competitive strategy*. New York: The Free Press.
- Powell, W. W., & Brantley, P. (1992). Competitive cooperation in biotechnology: Learning through networks? In Nitin Nohria, & Robert G. Eccles (Eds.), *Networks and organization: Structure, form, and action* (pp. 366 – 394). Boston: Harvard Business School.
- Prahalad, C. K., & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, 68(May/June), 79 – 91.
- Quinn, R. E. (1988). *Beyond rational management*. San Francisco, CA: Jossey-Bass Publishers.
- Ruekert, R. W. (1992). Developing a market orientation: An organizational strategy perspective. *International Journal of Research in Marketing*, 9(3), 225 – 245.
- Ruekert, R. W., Walker Jr., O. C., & Roering, K. J. (1985). The organization of marketing activities: A contingency theory of structure and performance. *Journal of Marketing*, 49(Winter), 13 – 25.
- Rumelt, R. P., Schendel, D., & Teece, D. (1991). Strategic management and economics. *Strategic Management Journal*, 12(Winter), 5 – 30.
- Sethi, R. (2000). New product quality and product development teams. *Journal of Marketing*, 64(April), 1 – 14.
- Sethi, R., Smith, D. C., & Park, C. W. (2001). Cross-functional product development teams, creativity, and the innovativeness of new consumer products. *Journal of Marketing Research*, 38(February), 73 – 85.
- Slater, S. F., & Narver, J. C. (1995). Market orientation and the learning organization. *Journal of Marketing*, 59(July), 63 – 74.
- Slater, S. F., & Narver, J. C. (1999). Market-oriented is more than being customer-led. *Strategic*

- Management Journal*, 20(December), 1165 – 1168.
- Slotegraaf, R., Moorman, C., & Inman, J. (2003). The role of firm resources in returns to market deployment. *Journal of Marketing Research*, 40(August), 295 – 310.
- Song, X. M., & Parry, M. (1997). The determinants of Japanese new product successes. *Journal of Marketing Research*, 34(February), 64 – 77.
- Srivastava, R. K., Shervani, T. A., & Fahey, L. (1998). Marketbased assets and shareholder value: A framework for analysis. *Journal of Marketing*, 62(January), 2 – 18.
- Srivastava, R. K., Shervani, T. A., & Fahey, L. (1999). Marketing, business processes, and shareholder value: An organizationally embedded view of marketing activities and the discipline of marketing. *Journal of Marketing*, 63(October), 168 – 179.
- Steenkamp, J. B. E. M., & van Trijp, H. C. M. (1991). The use of LISREL in validating marketing constructs. *International Journal of Research in Marketing*, 8(4), 283 – 299.
- Teece, D. J. (1986). Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy. *Research Policy*, 15(December), 285 – 305.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(August), 509 – 534.
- Traill, W. B., & Meulenbergh, M. (2002). Innovation in the food industry. *Agribusiness*, 18(Winter), 1 – 21.
- Troy, L. C., Szymanski, D. M., & Varadarajan, P. R. (2001). Generating new product ideas: An initial investigation of the role of market information and organizational characteristics. *Journal of the Academy of Marketing Science*, 29(Winter), 89 – 101.
- Tushman, M. L., & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly*, 31(3), 439 – 465.
- Tushman, M. L., & O'Reilly III, C. A. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review*, 38(Summer), 8 – 30.
- Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly*, 38(December), 628 – 652.
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(March), 171 – 180.
- Winter, S. G., & Szulanski, G. (2001). Replication as a strategy. *Organization Science*, 12(6), 730 – 743.