
Strategic knowledge-based marketing

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Abstract: This paper develops and presents the concept of strategic knowledge-based marketing in an effort to explain the role of knowledge in marketing and marketing strategy and the process of marketing knowledge (co-)creation and management. The purpose is to provide both academics and practitioners with a framework for understanding and analysing knowledge-based processes in marketing from a strategic perspective and learn how these can be leveraged to gain and sustain competitive advantage.

Keywords: knowledge-based approach; knowledge creation; knowledge management; marketing; multinational companies; strategic management; strategy.

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1 Introduction

According to Teece (2000, p.42), the

"modern corporation, as it accepts the challenges of the new knowledge economy, will need to evolve into a knowledge-generating, knowledge-integrating and knowledge-protecting organisation."

This is one of the reasons why knowledge management has become a very popular and essential area in management studies and practice. Prusak (2001, p.1002) argues that knowledge management is

"a practitioner-based, substantive response to real social and economic trends", one of which was the knowledge-centric view of the firm. In this view, a firm is "seen as a coordinated collection of capabilities,"

and the “main building block of these capabilities [...] is knowledge, especially the knowledge that is mostly tacit and specific to the firm” (Prusak, 2001, p.1003). This knowledge-based view or knowledge-based theory of the firm was for the first time comprehensively discussed in a special issue of the *Strategic Management Journal* edited by Spender and Grant in 1996 (Grant, 1996b; Spender, 1996; Spender and Grant, 1996). In this special issue, the editors – in selecting the papers for the special issue – “have sought to move toward the still hidden knowledge-based theory of the firm” (Spender and Grant, 1996, p.9).

By now, the knowledge-based theory of the firm “has arguably established itself as the mainstream literature informing the discourse on knowledge in organisations” (Patriotta, 2003, p.25). It has been influenced by the work of Penrose (1995) and – more generally – by the so-called resource-based view of the firm (e.g., Barney, 2001). Indeed, Grant (1996b, p.110) sees the knowledge-based view as “an outgrowth of the resource-based view”, a view that is also echoed by other scholars in the field (e.g., Patriotta, 2003). Given this background and the fact that the resource-based view of the firm is one of the core streams in the field of strategic management, the important relation between knowledge management and strategy theory are obvious. However, as will be shown here, there is a gap in the literature concerning the relation and application of knowledge management to the field of marketing and its strategic management.

This paper develops and presents the concept of strategic knowledge-based marketing in an effort to explain the role of knowledge in marketing and marketing strategy and the process of marketing knowledge (co-)creation and management. The purpose is to bridge strategic management and knowledge management and provide both academics and practitioners with a framework for understanding and analysing knowledge-based processes in marketing from a strategic perspective and learn how these can be leveraged to gain and sustain competitive advantage. The paper is structured as follows. First, the literature on knowledge management and strategy is briefly reviewed. Then, the concepts of marketing knowledge and knowledge-based marketing are introduced and analysed. Subsequently, a conceptual framework of strategic knowledge-based marketing is developed and presented, followed by some short, real-life examples of companies employing strategic knowledge-based marketing. Finally, the main conclusions and implications for marketing managers and scholars are offered.

2 Theoretical background

The theoretical foundation of this paper is Nonaka’s theory of organisational knowledge creation (Nonaka, 1994; Nonaka and Takeuchi, 1995), Ichijo’s (2007b) concept of the strategic management of the knowledge-based competence of a firm and Kohlbacher’s (2007) framework of knowledge-based marketing and knowledge co-creation in the business ecosystem. The contribution of this paper is to synthesise the essence of the former two approaches and apply them to the framework of the latter to develop the concept of strategic knowledge-based marketing.

2.1 Knowledge management and strategy

During the last decade, knowledge has been identified as a crucial strategic resource and asset (Earl, 1997; Lyles and Schwenk, 1992; Probst et al., 1998), as in today's economy, knowledge and its strategic management constitute a competitive advantage of corporations (Eisenhardt and Santos, 2002). As a result, knowledge management and transfer have been analysed within strategic frameworks (Ichijo, 2006, 2007b; Szulanski, 1996, 2003; von Krogh et al., 2001) and strategies for knowledge creation and management have been set forth (Hansen et al., 1999; Teece, 2000; Un and Cuervo-Cazurra, 2004; Zack, 1999). To put in a nutshell, "creating knowledge [...] has now become a core element of business strategy" (Ichijo, 2007b, p.122) and the ability to manage knowledge effectively is a 'strategic imperative' (Birkinshaw and Sheehan, 2002). As such, knowledge management has become a dominant area in strategic management and it has increasingly been adapted to the global context. Indeed, the capability of Multinational Corporations (MNCs) to create and efficiently transfer and combine knowledge from different locations around the world is becoming more and more important as a determinant of competitive advantage and has become critical to their success and survival (cf. e.g., Asakawa and Lehrer, 2003; Bartlett and Ghoshal, 2002; Chini, 2004; Doz et al., 2001; Gupta and Govindarajan, 2000; Schulz and Jobe, 2001).

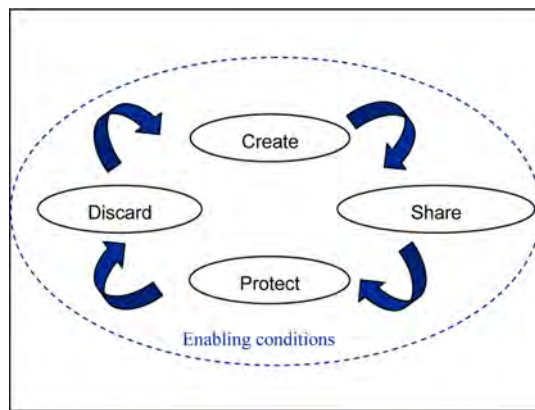
For the purpose of this paper, I adopt Ichijo's (2007a, p.84) holistic definition of knowledge management, which includes four important activities for managing the knowledge-based competence of a corporation: creating knowledge, sharing knowledge, protecting knowledge and discarding (obsolete) knowledge. The most important one is certainly the creation of new knowledge. Having created new knowledge, it must be shared among organisational members across regions, businesses and functions. Protection of knowledge is literally protecting knowledge assets from competitors by various means such as intellectual property protections and hiding precious corporate knowledge in a black box, for example, intentionally avoiding the articulation of corporate tacit knowledge (Chakravarthy et al., 2003). Companies also need to check and monitor if the unique corporate knowledge is not outdated. If necessary, it is required to discard existing knowledge and promote further new knowledge creation. Otherwise, companies might not be able to adapt to the changing environment because of core rigidities resulting from obsolete corporate knowledge (Leonard-Barton, 1992).

Figure 1 shows Ichijo's (2007a, p.84) conceptual framework for the strategic management of knowledge. Note that the effective management of knowledge, that is, knowledge creation, sharing, protection, and discarding depend on an enabling context/enabling conditions (Ichijo, 2007a; von Krogh et al., 2000).

Ichijo's (2007b) strategic framework from the viewpoint of the knowledge-based competence of a corporation breaks down the potential of knowledge creation into two basic strategies: *survival strategies*, in which companies focus on existing knowledge to maintain their current level of success and performance, and *advancement strategies* that emphasise the importance of innovation (cf. also von Krogh et al., 2000). This distinction builds on the framework put forth by von Krogh et al. (1994). Survival strategies secure current company profitability and emphasise current strengths and minimise current weaknesses in the resources and knowledge base of the company. The aim is to take advantage of existing business opportunities and neutralise threats in the environment (Andrews, 1971). Advancement strategies secure future profitability and

build on future strengths and attempt to minimise future weaknesses in the resources and knowledge base of the company. Their aim is to take advantage of future business opportunities and neutralise future threats in the environment. Survival and advancement strategies both provide distinct competitive advantages, draw on particular sources of competitive advantage, put distinct demands on knowledge, and are associated with particular knowledge processes (Ichijo, 2007b). Therefore, overall, a careful balance between advancement and survival strategies will allow a company to prepare for vanishing industry boundaries, rapid transition in the industry, the rapid devaluing of existing knowledge and competences, and the obsolescence of existing products and services (Ichijo, 2007b; von Krogh et al., 1994, 2000). In a similar vein, this paper also argues that a skilful combination of advancement and survival strategies is important in strategic knowledge-based marketing (see also below).

Figure 1 Conceptual framework for strategic management of knowledge (see online version for colours)



Source: Ichijo (2007a, p.84)

Note that survival and advancement strategies result in the four key knowledge activities – creating, sharing, protecting, and discarding – discussed earlier. Knowledge creation constitutes the core of advancement strategies. However, to create new knowledge, a company should not stick to the old obsolete knowledge. Therefore, while creating new knowledge, the company has to discard obsolete knowledge (Ichijo, 2007b). This process has also been analysed as organisational unlearning or organisational forgetting (de Holan and Philips, 2004; Hedberg, 1981).

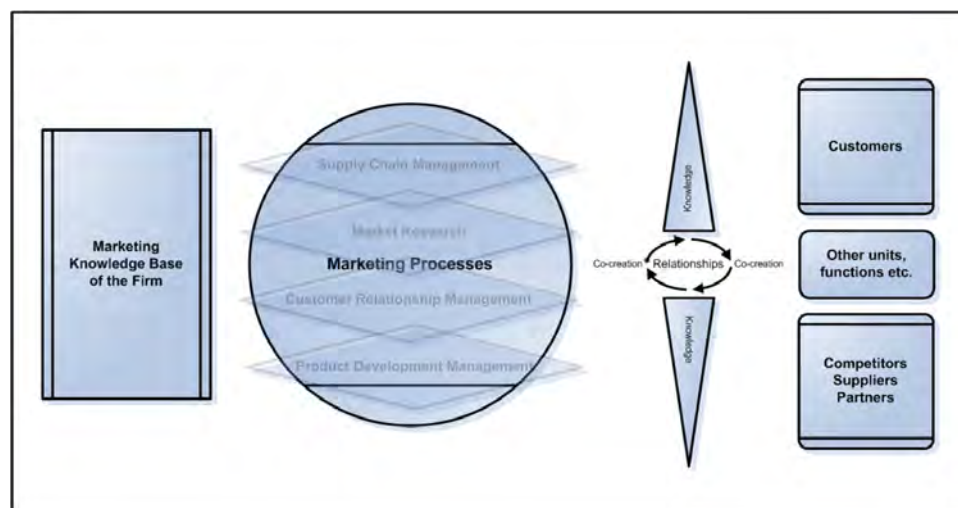
Newly created knowledge must be protected from being imitated by competitors. Retaining excellent managers who created new knowledge so that knowledge outflow would not occur is also an important specific activity of knowledge protection. While there are elements of knowledge sharing for advancement strategies, the predominant process is one of discarding obsolete knowledge and creating new knowledge for future sustainable competitive advantage. Knowledge protection is also very important for survival strategies along with knowledge sharing. In executing this strategy, once knowledge is at hand, the effective utilisation and protection of this knowledge is what counts to sustain competitive advantage. Although there are elements of knowledge discarding and creation for survival strategies, the focus is on rapid and effective knowledge sharing across the business (Ichijo, 2007b).

2.2 Marketing knowledge and knowledge-based marketing

Despite the fact that the theory of organisational knowledge creation (Nonaka and Toyama, 2005) has been applied to numerous fields (cf. e.g., Nonaka et al., 2006b), this does not seem to be the case for marketing and marketing research. Indeed, even though “marketing functions lend themselves particularly well for an investigation of knowledge transfer within MNCs”, “there is a dearth of research on knowledge transfer in the field of marketing” (Schlegelmilch and Chini, 2003, pp.220–221). Yet, in an increasingly global business environment, the creation and transfer of marketing knowledge and intra-firm collaboration through knowledge-based approaches to marketing will become more and more crucial as a determinant for corporate competitive advantage and survival of firms (Kohlbacher, 2007). This is a strong affirmation of the importance of advancement strategies in knowledge management.

Kohlbacher (2007) developed a conceptual framework of knowledge-based marketing and the essential processes of marketing knowledge co-creation with the main actors in the business ecosystem of global firms – customers, suppliers, competitors and business partners (cf. below, Figure 2). While traditional marketing approaches have focused overly on explicit knowledge and neglected the important role of tacit knowledge, specifically in international (cross-cultural) settings, his approach aimed to adjust this imbalance in the extant literature and proposed a new knowledge-based marketing paradigm, with knowledge and knowledge co-creation being the key to sustainable competitive advantage in the global network economy. Facing the current global business environment and fierce competition, knowledge-based marketing has already become crucial as a determinant for corporate competitive advantage and as such a *sine qua non* for leading MNCs. Besides, as large parts of marketing knowledge are tacit and hard to codify, face-to-face communication and the integration of local staff into marketing processes and decision-making is an important factor for global marketing knowledge sharing that leads to successful marketing and sales achievements (Kohlbacher, 2007).

Figure 2 Knowledge-based marketing processes (integrated model) (see online version for colours)



Source: Kohlbacher (2007, p.118)

Hanvanich et al. (2003, p.124) argue that while marketing scholars have been interested in the topic of marketing knowledge, “they have focused mainly on how firms acquire, disseminate, and store knowledge”, with related research areas being market orientation and organisational learning. Kohlbacher (2007, p.96) defines marketing knowledge as “all knowledge, both declarative as well as procedural, concerning marketing thinking and behavior in a corporation”. This definition includes both tacit as well as explicit knowledge about products, markets, customers, competitors, partners, marketing processes and marketing strategy. It also includes experiences of past marketing efforts such as new product introductions etc., as well as future expectations. Note that a finer and narrower definition of marketing knowledge leads to the definition of one of these subunits of marketing knowledge, such as customer knowledge, competitor knowledge, etc. Note that this is a deliberately comprehensive conceptualisation of marketing and marketing knowledge. In a similar vein, Hanvanich et al. (2003, p.130), taking a new approach to reconceptualise marketing knowledge and innovation, proffer that

“marketing knowledge resides in three key marketing processes: Product Development Management (PDM), Customer Relationship Management (CRM), and Supply Chain Management (SCM).”

This notion is based on Srivastava et al. (1999) framework that redefines marketing as a phenomenon embedded in the three core marketing processes of PDM, SCM and CRM. Bjerre and Sharma (2003, p.140) seem to agree when they posit that the “important thing is not one specific piece of knowledge, but an entire package that includes knowledge about clients, competitors, local institutions, suppliers etc.” Finally, Kohlbacher (2007) has added market research as a forth process (see also below).

3 Towards a theoretical framework of strategic knowledge-based marketing

As Kohlbacher (2007) has shown, applying knowledge management concepts and practices to the knowledge-intensive field of marketing and to marketing functions bears out particularly efficient and effective. Especially when introducing new products or when entering new markets, knowledge creation and transfer and intra – as well as inter-firm collaboration – in short, advancement strategies – prove critical for the success of projects.

Kohlbacher identified and described four core marketing processes – SCM, market research, CRM, PDM – in which knowledge (co-)creation plays an essential role (cf. Figure 2). These processes need to be managed in a strategic way and in consistence with the overall strategy of the firm. Of course, many more marketing processes could be identified and analysed in a similar way and more entities in the business ecosystem involved in the joint creation of knowledge and value could be identified. Figure 2 is a simplified model of the core processes and actors. Note that the strategic management of knowledge (co-)creation in these processes is part of advancement strategies in marketing management.

3.1 Knowledge co-creation

Knowledge co-creation, and especially knowledge co-creation with customers, is at the heart of knowledge-based marketing. It is an important element of advancement strategies along with intra-firm knowledge creation. Nonaka (2007, p.14) contends that “[f]irms and managers have to take the standpoint of the customer, and collaborate with them and dwell in them to share and co-create tacit knowledge”. However, Sawhney (2002, p.96, original emphasis) notes that even though “[c]ollaboration has become an established way of doing business with suppliers, channel partners and complementors”, with a few exceptions, “working directly with *customers* to co-create value remains a radical notion”. But a “critical aspect of creating a successful market is the ability to integrate the customer into every key process” and collaborators “may play a major role in initiating knowledge creation in the marketspace” (Kotler et al., 2002, pp.36–38).

According to Achrol and Kotler (1999), the creation of marketing know-how is the most important function of marketing in the global knowledge-based economy. Indeed, “in marketing, a wide array of knowledge needs to be created” and “knowledge on customers and their preferences must be located or solutions for a particular kind of customer problem need to be identified” (Schlegelmilch and Penz, 2002, p.12). Most of the time, the knowledge creation or application is only conducted in a unilateral, one-sided way. Firms generate, collect and analyse knowledge about customers, customers’ needs, competitors, suppliers, etc. Customer knowledge from customers can be seen as a little exception to this, but here as well, the knowledge might be communicated unilaterally from the customers to the firm. But the real challenge and source of essential knowledge for competitive advantage is to go beyond knowledge creation and application as a unilateral concept. In fact, interactions and knowledge co-creation become more and more crucial and need to be managed in a systematic and strategic way.

Therefore, knowledge and value co-creation with customers – but also with suppliers and other business partners – has also received significant attention recently (cf. e.g., Doz et al., 2001; Gummesson, 2002; Lawer, 2005; Prahalad and Ramaswamy, 2000, 2003, 2004b; Sawhney, 2002; Sawhney and Prandelli, 2000a; Thomke and von Hippel, 2002; Wikström, 1996; Zack, 2003). According to Prahalad and Ramaswamy (2000, p.80), the market has become “a forum in which consumers play an active role in creating and competing for value”, with the distinguishing feature of this new marketplace being “that consumers become a new source of competence for the corporation” (cf. also Prahalad and Ramaswamy, 2003, 2004b). Indeed, “co-creation converts the market into a *forum* where dialogue among the consumer, the firm, consumer communities, and networks of firms can take place” (Prahalad and Ramaswamy, 2004b, p.122, original emphasis). According to Zack (2003, p.71), anyone who can help the business – customers, trading partners, suppliers, consumers, interest groups – should be involved to create the knowledge the company needs. In fact, as discussed above, the

“array of relationships in the set has been expanded from the dyad of seller and customer to include partners up and down the value chain (e.g., suppliers, the customers of customers, channel intermediaries).” (Day and Montgomery, 1999, p.4)

Gibbert et al. (2002, p.463) contend that since customer knowledge management is about innovation and growth, customer knowledge managers “seek opportunities for partnering with their customers as equal co-creators of organisational value”. According to Prahalad and Ramaswamy (2003), the value of products or services is in the co-creation experience that stems from the customer’s interaction with the product or the firm (cf. also Prahalad and Ramaswamy, 2004b). Gummeson (2002, p.8) further notes that “[e]specially in services and often in B-to-B, customers are co-producers”. Lovelock and Gummeson (2004, p.29) use the term ‘coproducer’ in the narrow sense of “a transfer of work from the provider to the customer” and contend that “[i]n its purest form, coproduction means that customers engage in self-service, using systems, facilities, or equipment supplied by the service provider”. However, research in this area is still rather scarce, and as Lawer (2005, p.11) has noted,

“the organisational learning or marketing literature does not yet adequately define or empirically identify the nature or scope of the capability changes required for co-creation of knowledge with customers.”

Indeed, “the challenge is to view customers as co-producers of knowledge” (Desouza and Awazu, 2005, p.143) and

“to be successful at co-producing knowledge, the organisation must seek customers who have open knowledge-sharing cultures, are willing to engage in learning and knowledge-creating activities, and are willing to take a certain degree of risk.” (Desouza and Awazu, 2004, p.15)

Finally, companies must

“redesign their businesses from a customer-driven starting point, so that they gather deep knowledge about customers and then have the capacity to offer customised products, services, programs, and messages.” (Kotler et al., 2002, p.164)

Furthermore, customer interactions (Furukawa, 1999a, 1999b; Vandenbosch and Dawar, 2002), customer experiences (Berry et al., 2002; Carbone and Haeckel, 1994; Pine II and Gilmore, 1999; Prahalad and Ramaswamy, 2000, 2003, 2004b), and communities of creation (Sawhney and Prandelli, 2000b) have become key terms in this context. In fact, “[h]igh-quality interactions that enable an individual customer to co-create unique experiences with the company are the key to unlocking new sources of competitive advantage” (Prahalad and Ramaswamy, 2004a, p.7). Prahalad and Ramaswamy propose the concept of ‘experience environment’, which

“can be thought of as a robust, networked combination of company capabilities [...] and consumer interaction channels [...] flexible enough to accommodate a wide range of individual context-and-time-specific needs and preferences.” (Prahalad and Ramaswamy, 2003, p.15)

The network creates an experience environment with which each customer has a unique interaction. The consumer actively co-creates his or her personalised experience, which forms the basis of value to that consumer (Prahalad and Ramaswamy, 2003, p.15). Because we must continually co-create new knowledge to co-create value continually, so-called ‘knowledge environments’ for managers resemble experience environments for consumers (Prahalad and Ramaswamy, 2004b, p.171). To be effective, “a knowledge environment must engage the total organisation, including multiple levels, functions, and geographies”, and the knowledge environment “is also where *the manager, as consumer,*

interacts with the experience network to co-create value" (Prahalad and Ramaswamy, 2004b, pp.179–185, original emphasis).

Customers' ideas – specifically those of so-called 'lead users' (e.g., von Hippel, 1977, 1986) – and the ideas of those that interact directly with customers, or those that develop products for customers, have become important (cf. e.g., Leonard, 1998; Zaltman, 2003). "Lead users have foresight (knowledge) to help an organisation better plan for product innovations" and organisations have

"begun to host user conferences for the specific purpose of getting to know how their customers utilise their products and how they have customised or modified them to meet their needs." (Desouza and Awazu, 2004, p.14)

In the 1970s, von Hippel (1977) found that most product innovations come not from within the company that produces the product but from end-users of the product. Note that lead users can be part of or can also form networks and share their ideas and knowledge within them (Furukawa, 1999a, 1999b). More recently, Thomke and von Hippel (2002) suggested ways in which customers can become co-innovators and co-developers of custom products (cf. also Gibbert et al., 2002; Thomke, 2003). Indeed, "[c]ontrary to the mythology of marketing, the supplier is not necessarily the active party" and in B-to-B, "customers initiate innovation and force suppliers to change their products or services" (Gummesson, 2002, p.15). As Prahalad and Ramaswamy (2004a, pp.10–11, original emphasis) put it: "In the co-creation view, all points of interaction between the company and the consumer are opportunities *for both value creation and extraction*". This is why knowledge co-creation is so important for advancement strategies.

3.2 *Exploration and exploitation strategies for creating marketing knowledge*

A key issue in the literature on strategic organisational learning and knowledge management is how successfully firms learn when they are exploiting current knowledge and skills vs. exploring new knowledge and skills and a long tradition of research suggests that these are competing strategies (Kyriakopoulos and Moorman, 2004; March, 1991; Miller et al., 2006), similar to the survival and advancement strategies described earlier. But this view has also been challenged arguing that firms must engage in both strategies (e.g., He and Wong, 2004; Jansen et al., 2005; Kyriakopoulos and Moorman, 2004; Levinthal and March, 1993; Lewin and Volberda, 1999). Levinthal and March put it like this:

"an organisation that engages exclusively in exploration will ordinarily suffer from the fact that it never gains the returns of its knowledge. An organisation that engages exclusively in exploitation will ordinarily suffer from obsolescence. The basic problem confronting an organisation is to engage in sufficient exploitation to ensure its current viability and, at the same time, to devote enough energy to exploration to ensure its future viability. Survival requires a balance, and the precise mix of exploitation and exploration that is optimal is hard to specify." (Levinthal and March, 1993, p.105)

Kyriakopoulos and Moorman (2004) identified research in various fields that has recently shifted focus from whether to how firms can achieve a complementarity of the exploitation and exploration strategies: Brown and Eisenhardt (1997), e.g., introduce semi-structured and time-paced strategies as managerial tools to achieve this dynamic

balance in product innovation. Likewise, the integration of exploration and exploitation is central to work examining dynamic or combinative capabilities (Grant, 1996a; Kogut and Zander, 1992; Teece et al., 1997). In the product development literature, scholars often study the degree of fit between a new product and prior activities (e.g., marketing and technological synergy, Henard and Szymanski, 2001; Montoya-Weiss and Calantone, 1994; Moorman and Miner, 1997; Song and Parry, 1997). Kyriakopoulos and Moorman contribute to this literature by suggesting that a firm's market orientation can systematically promote synergies between exploratory and exploitative marketing strategy activities because

“a firm's market orientation reduces the tensions between exploration and exploitation strategies and creates the opportunity for cross-fertilisation and complementary learning between the two strategies.” (Kyriakopoulos and Moorman 2004, p.220)

While knowledge exploitation “means enhancing the intellectual capital of a company with existing knowledge”, knowledge exploration “is a strategy for a company to increase its intellectual capital by creating its unique private knowledge within its organisational boundary” and therefore “means enrichment of the intellectual capital that a company achieves by itself” (Ichijo, 2002, pp.478–479). According to Ichijo (2002), both knowledge exploitation and knowledge exploration are indispensable for a company to increase its competitive advantage and Kyriakopoulos and Moorman (2004, p.234) found that – despite the common assumption that these are competing strategies – “market-oriented firms can gain important bottom-line benefits from pursuing high levels of both strategies in product development”. In fact,

“[i]n a world where other firms are seeking to expand their market share, successful firms often can only stay ahead of the competition by exploiting new knowledge to offer improved products or processes that deliver new forms of added value to their customers.” (Chaston, 2004, p.155)

If we interpret Chastons's expression ‘exploiting new knowledge’ to be a mix of exploiting old knowledge and exploring new knowledge, we might well conclude that his statement is consistent with the above. Vicari and Cillo (2006, p.195) follow Kyriakopoulos and Moorman (2004) and define market knowledge exploitation strategies as “those that imply a leverage on existing knowledge to refine marketing strategies, without exiting the existent path”. On the other hand, they define market exploration strategies as “those that enact new approaches in the relationship with the market, by challenging existent convictions and routines of the organisation” (Vicari and Cillo, 2006, pp.195–196). Of course, these exploration and exploitation strategies could also be seen as advancement and survival strategies. Finally, Reinmoeller and van Baardwijk (2005, p.63) contend that resilient companies “go beyond conventional knowledge management by simultaneously exploiting existing knowledge and searching for new knowledge”.

Kyriakopoulos and Moorman (2004, p.221) define ‘marketing exploitation strategies’ as

“strategies that primarily involve improving and refining current skills and procedures associated with existing current skills and procedures associated with existing marketing strategies, including current market segments, positioning, distribution, and other marketing mix strategies”

and “marketing exploration strategies” as

“strategies that primarily involve challenging prior approaches to interfacing with the market, such as a new segmentation, new positioning, new products, new channels, and other marketing mix strategies.”

Exploitation strategies have also been referred to as “adaptive learning” (Senge, 1990; Slater and Narver, 1995) or “single-loop learning” (Argyris, 1977), and exploration strategies as “generative learning” (Senge, 1990; Slater and Narver, 1995) or “double-loop learning” (Argyris, 1977).

Dynamic capabilities enable “both the exploitation of existing internal and external firm-specific capabilities and developing new ones” (cf. also Eisenhardt and Martin, 2000; Teece et al., 1997, p.515). Kyriakopoulos and Moorman (2004, p.222) – who build their concepts of marketing exploitation and exploration on the resource-based view of the firm – view a firm’s market orientation as “a dynamic capability that facilitates a firm’s ability to explore and exploit knowledge and skills”. Indeed, dynamic capabilities are rooted in both exploitative and exploratory activities (Benner and Tushman, 2003). Kyriakopoulos and Moorman (2004, pp.235–236) finally conclude that

“as a dynamic capability to sense market changes and relate to markets, a firm’s market orientation helps it reconfigure and integrate knowledge generated from both strategies to serve existing and future customer needs”

and that

“market orientation is one important firm-level factor that allows high levels of both marketing exploitation strategies (improving current knowledge and skills) and marketing exploration strategies (developing new knowledge and skills) to be used profitably by firms.”

The ability to pursue both exploration and exploitation at the same time – or within the same organisation – has also been termed *ambidexterity* (e.g., O’Reilly III and Tushman, 2004; Tushman and O’Reilly III, 1996).

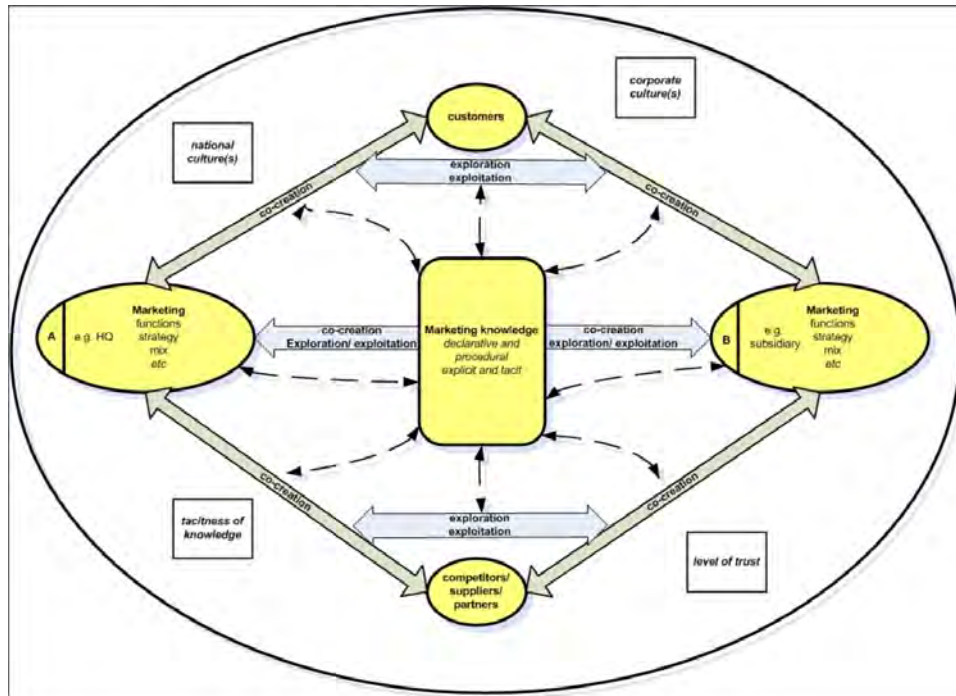
On the basis of the above, Kohlbacher defined knowledge-based marketing as

“a knowledge management approach to marketing that focuses both on the exploitation (sharing and application) and exploration (creation) as well as the co-creation of marketing knowledge from contexts, relations and interactions in order to gain and sustain competitive advantage.” (Kohlbacher, 2007, p.103)

Knowledge-based marketing therefore asks for ambidexterity, for a combination of survival and advancement strategies. Note that – even though the term is not mentioned in the definition – the (co-)creation of value is an essential prerequisite for gaining and sustaining competitive advantage. Often, the (co-)creation of knowledge goes hand in hand with the (co-)creation of value, but sometimes it can also be an antecedent. Figure 3 shows a model of strategic knowledge-based marketing in MNCs. Using exploration, exploitation and co-creation strategies, new marketing knowledge is created within the MNC, between MNC units and subsidiaries and together with other entities/ stakeholders in the business ecosystem such as customers, competitors, suppliers, partners, etc. (cf. also Figure 2). These processes are influenced by certain factors, such as national and corporate culture, tacitness of knowledge and the level of trust between the partners. As a result, the marketing knowledge base of the MNC is built, refined, recreated and developed over time. In reality, the processes of exploration and exploitation and sometimes also co-creation cannot always be so clearly distinguished. Obviously, also in creating new knowledge, people and organisations draw on existing knowledge and put it

to use, and also in co-creating knowledge with a partner, unilateral knowledge creation on both sides takes place simultaneously.

Figure 3 Strategic knowledge-based marketing (see online version for colours)



Source: Kohlbacher (2007, p.104)

According to Vicari and Cillo (2006, p.185), studies on market orientation and market knowledge are considered

“to address the issue of how companies learn about customers, competitors and channel members in order to continuously sense and act on events and trends in present and prospective markets.” (Vicari and Cillo, 2006, p.185)

As has become clear from the models of knowledge-based marketing processes (Figure 2) and the model of knowledge-based marketing (Figure 3), there are at least the following key players and actors involved in the exploration and exploitation (co-creation and sharing) of (marketing) knowledge: different units or subsidiaries of the firm, customers, suppliers, business partners and competitors. Intra-firm knowledge creation and transfer (cf. e.g., Doz et al., 2001; Gupta and Govindarajan, 2000; Nonaka and Takeuchi, 1995) as well as inter-organisational knowledge creation and sharing (cf. e.g., Chaston, 2004; Inkpen, 2000; Simonin, 2004) have frequently been researched and discussed. But nowadays, companies can hardly be viewed as single, independent and isolated beings any more, and business networks have become ubiquitous in our economy (cf. e.g., Iansiti and Levien, 2004a). Indeed,

“during the last decades of the twentieth century significant changes in our legal, managerial, and technological capabilities made it much easier for companies to collaborate and distribute operations over many organisations” and this development “pushed many of our industries toward a fully networked structure, in which even the simplest product or service is now the result of collaboration among many different organisations.” (Iansiti and Levien, 2004a, pp.5, 6)

Consequently, “large, distributed business networks became *the* established way of doing business in the modern economy” (Iansiti and Levien, 2004a, p.6, original emphasis) and these – more or less –

“loose networks – of suppliers, distributors, outsourcing firms, makers of related products or services, technology providers, and a host of other organisations – affect, and are affected by, the creation and delivery of a company’s own offerings.” (Iansiti and Levien, 2004b, p.69).

As Chaston (2004, p.21) puts it:

“in the 21st century, it can confidently be predicted that knowledge networks of various forms will become an increasingly dominant operational structure through which to ensure the effective management of entrepreneurial activities in both private and public sector organisations.” (Chaston, 2004, p.21)

Given this situation, a company’s success depends on the success of its partners (Iansiti and Levien, 2004a). In fact, “neither value nor innovation can any longer be successfully and sustainably generated through a company-centric, product-and-service-focused prism” (Prahalad and Ramaswamy, 2003, p.12).

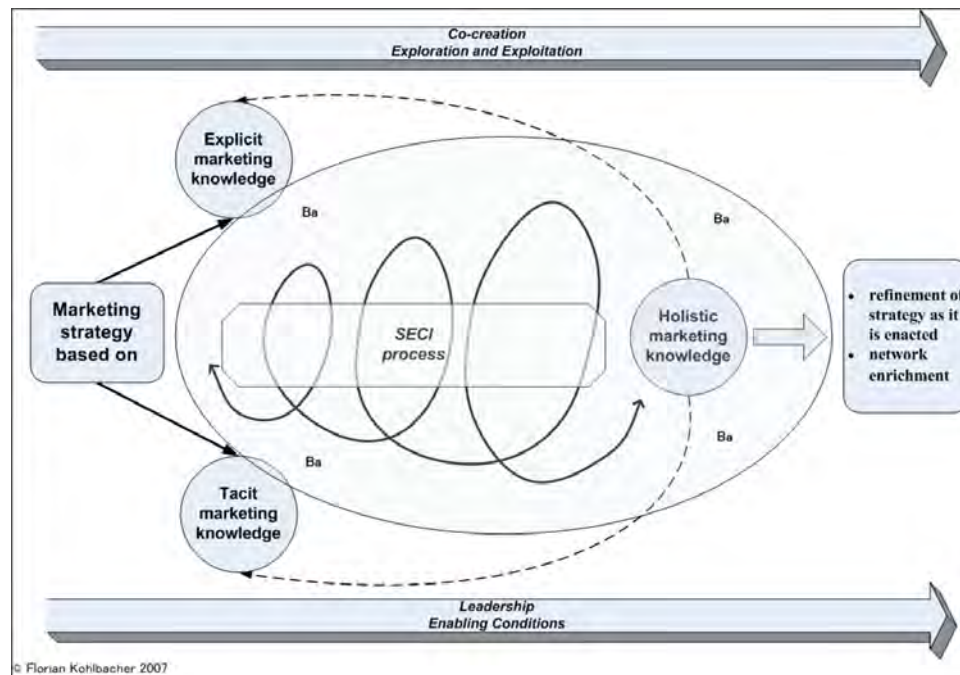
Figure 4 illustrates the interconnected processes of organisational knowledge creation and marketing strategy, i.e., the marketing knowledge (co-)creation process. Through the SECI process – the process of organisational knowledge creation defined and explained by Nonaka (1994) and Nonaka and Takeuchi (1995) – new knowledge is constantly created and refined over time, lifting the knowledge from the tacit and explicit organisational knowledge base to a higher dimension, namely in the form of holistic knowledge. In a sense, this holistic knowledge bridges explicit and tacit knowledge, and can therefore be seen as a kind of synthesis of both. Indeed, bridging the gap between explicit and tacit knowledge means bridging the gap “between the formula and its enactment”. Taylor (1993, p.57) contends that the “person of real practical wisdom is marked out less by the ability to formulate rules than by knowing how to act in each particular situation”. Note that the tacit and explicit knowledge base and the holistic knowledge created from them are crucial organisational capital that adds to the knowledge-base of the corporation.

Note that the marketing knowledge co-creation process in Figure 4 is exactly the knowledge co-creation process (and actually also exploration and exploitation process) that can be found in the models of knowledge-based marketing processes (Figure 2) and knowledge-based marketing (Figure 3). In a sense, this model of the marketing knowledge co-creation process explains on the micro level and in greater detail what is shown on the meta level in the model of knowledge-based marketing processes and on the macro level in the model of knowledge-based marketing, in general.

As the name suggests, the marketing knowledge (co-)creation process is a process of co-creation but also one of exploration and exploitation, as both new and existing knowledge are constantly created and combined. It is an iterative process that starts with setting a marketing strategy and constantly loops back again. The marketing strategy is

based on the tacit and explicit knowledge base of the firm. The final outcome is innovation in the form of new and innovative products, services and solutions and a refinement of marketing strategy as it is enacted, as well as an enrichment of the co-creative network of the firm. The continuous process of creating and refining concepts, ideas and knowledge through direct communication and interaction fosters the emergence of innovation and competitive advantage. Put differently, the whole process could also be described as a process of building up, refining and recreating the (marketing) knowledge base.

Figure 4 The marketing knowledge (co-)creation process (see online version for colours)



Source: Kohlbacher (2007, p.125)

The knowledge (co-)creation process is supported and nurtured by leadership – usually by middle managers (Nonaka and Takeuchi, 1995) and knowledge activists (von Krogh et al., 2000) – as well as certain enablers or enabling conditions (von Krogh et al., 2000). Indeed, as shown by Nonaka and associates (Nonaka et al., 2000; von Krogh et al., 2000), organisational knowledge creation needs a shared context/*ba* or it is least enhanced by it. Figure 4 takes this fact also into consideration and incorporates *ba* into the model. The knowledge creation process takes place in *ba* and is at the same time nurtured by it. For the case of the interaction and subsequent knowledge exchange and creation between firms and customers, Furukawa (1999a, 1999b) proposes the concept of ‘meeting *ba*’ (*deai no ba*). This meeting *ba* needs to be designed to communicate actively with customers and consumers within the social network. In a similar vein, Nonaka (2007, p.14) emphasises the importance of *ba* and contends that a “theory of knowledge-based marketing must also be one of contextual marketing”.

4 Examples of strategic knowledge-based marketing

Despite the obvious need for knowledge-based approaches to strategic marketing in the knowledge economy of the 21st century, there are only few pioneer firms that are already taking or trying to take such an approach (Kohlbacher, 2007). This section briefly reports about some firms that take up and master the challenge of an increasingly global and competitive business environment with the help of strategic knowledge-based marketing.

One of them is the Japanese car manufacturer Toyota. Indeed, Toyota has often been found to be very strong at organisational learning and strategic knowledge creation and sharing (cf. e.g., Ichijo and Kohlbacher, 2007). One aspect that has particularly been under the scrutiny of researchers is the strategic way of knowledge sharing and learning within its supplier network and the way Toyota leverages this co-created knowledge for both itself and its suppliers (e.g., Dyer and Nobeoka, 2000). Additionally, Toyota also learns from its competitors and co-creates new knowledge with them. Especially, the joint venture between Toyota and GM – New United Motor Manufacturing, NUMMI – has already become legendary and has repeatedly been discussed from a knowledge-based perspective (e.g., Badaracco, 1991). More recently, Toyota has established an international joint venture with PSA Peugeot Citroën in Kolín, Czech Republic (Toyota Peugeot Citroën Automobile Czech, TPCA). This joint venture enables Toyota to pursue a marketing strategy perfectly suited for the emerging markets in Eastern Europe and the collaboration with PSA is also expected to result in mutual learning and other advantages for Toyota's European operation and its strategy of using external, local resources (Ichijo and Kohlbacher, 2007). In this case, Toyota strategically leverages the marketing knowledge of its partner company as well as co-creates new marketing knowledge locally.

Another example comes from the vertical transportation industry. Kohlbacher (2007) reports Swiss-based Schindler Elevator's knowledge-based marketing strategy for the market introduction of a new escalator product into Asian markets. This case, for instance, showed that even for a large MNC with its vast network of subsidiaries that are well connected by e-mail, intranet, databases, telephone and video conferences, the sharing of tacit knowledge on a personal level is still a very reasonable or even indispensable approach. In fact, a combination of both a codification and a personalisation strategy for marketing knowledge management to leverage both tacit and explicit knowledge proved highly successful. Similarly, Hewlett Packard (HP) Consulting and Integration strategically leverages both tacit and explicit marketing, sales and application knowledge from its field people – consultants and system engineers – through communities of practice (Kohlbacher and Mukai, 2007). Last but not least, German conglomerate Siemens enables competitive advantage and new business opportunities through a cross-selling and marketing and customer knowledge-sharing project that spans the boundaries of its different business divisions as part of its customer focus strategy (Kohlbacher, 2007).

As for knowledge-based new PDM, Nonaka et al. (2006a) give account of how Mazda enabled an empathic design strategy in developing the third generation Roadster Miata (MX-5). The product development team had been able to capture customer needs and translating them into a successful product concept. This was mainly because of their capacity to leverage even tacit customer needs and knowledge and achieve a high level of experience co-creation between the customers and the product. Finally, Maekawa Manufacturing Ltd found that producing and selling industrial parts is not enough any

more. Through strategic co-creation of common contexts and knowledge with its customers, the company was able to combine its products with its process knowledge to provide an integrated service (including consulting). However, they do not simply offer pre-defined process and manufacturing models, but actively co-create the solutions together with their customers.

5 Conclusion and need for further research

Building on Kohlbacher (2007), this paper presented and discussed a knowledge-based approach to marketing and marketing strategy and proposed a framework for systematic marketing knowledge co-creation with other entities in the business ecosystem. However, as is the case with Nonaka's SECI process of organisational knowledge creation, it is important to note that there is no silver bullet or single right approach. Indeed, depending on each company's individual circumstances, the process may look differently and a particular knowledge-based approach to marketing will have to be developed and strategically managed. Nevertheless, at the least the following five general conclusions can be drawn and implications for marketing managers and scholars can be offered (cf. also Kohlbacher, 2007, pp.193–194):

- As knowledge has become a critical source for competitive advantage, marketing – and management in general – has to become knowledge-based.
- Knowledge and the process of its (co-)creation need to be managed strategically.
- Marketing scholars and practitioners have focused too much on explicit marketing knowledge in the past. Combining and synthesising both tacit and explicit knowledge and subsequently leveraging holistic marketing knowledge is a *sine qua non* for corporate success and the source of innovation.
- Marketing knowledge needs to be co-created, i.e., not only inside the firm or across different units of a corporation but also together with other stakeholders, most importantly customers, but also with suppliers, partners and competitors. This requires deploying an appropriate strategy to select the co-creators systematically and manage the process in an efficient and effective way.
- Managers have to perceive their firms as interconnected in the global network economy, and thus have to take relationship marketing and the co-creation of knowledge and value with other entities in the business ecosystem seriously; networking and relating to these external stakeholders becomes a core task of strategic management.
- Strategic knowledge-based marketing asks for a skilful combination of both exploration and exploitation, i.e., both survival and advancement strategies.

Adopting a knowledge-based approach to marketing is a strategic decision for corporations and requires a shift in the mindset as the initial step. Monitoring and evaluating external knowledge sources must become a routine task, based on which potential knowledge co-creators can be selected and approached systematically. As Hansen and Nohria correctly note, the ways for MNCs to compete successfully by exploiting scale and scope economies or by taking advantage of imperfections in the

world's goods, labour and capital markets are no longer profitable as they once were, and as a result,

“the new economies of scope are based on the ability of business units, subsidiaries and functional departments within the company to collaborate successfully by sharing knowledge and jointly developing new products and services.” (Hansen and Nohria, 2004, p.22)

This statement strongly supports my call for strategic knowledge-based marketing. At the same time, “[m]anagers and executives must strive towards meeting the slogan, ‘think globally and act locally’ to be truly successful in managing knowledge across borders” (Desouza and Evaristo, 2003, p.66), as in the era of globalisation, “a firm has to achieve global integration and local adaptation at the same time” (Nonaka and Toyama, 2002, p.998). Leading knowledge-based companies such as Toyota, for example, have already successfully applied such a global knowledge management strategy (cf. e.g., Ichijo and Kohlbacher, 2007).

Finally, Kohlbacher (2007) argued convincingly that the view of marketing as just another corporate function will have to change into one that sees it as part of the process of strategic management. Thus, the theory of knowledge-based marketing is also one of the strategic management (Nonaka, 2007). Aligning a knowledge-based marketing strategy with the micro processes of generating and co-creation knowledge will be a major challenge for corporations in the network economy of the 21st century. The ideas and concepts presented in this paper are grounded in empirical research conducted by Kohlbacher (2007), but a number of limitations apply. Thus, further conceptual refinement as well as empirical research will be necessary.

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