



Knowledge marketing: How can strategic customers be utilised for knowledge marketing in knowledge-intensive SMEs?

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Abstract

This study aims to analyse the use of various forms of “knowledge utilisation” to integrate strategic customer knowledge in order to be one step ahead of the market and competitors. For this purpose, premises, processes, and factors are highlighted, which are essential to incorporate the knowledge of strategic customers into the knowledge base of knowledge-intensive small- to medium-sized enterprises (SME) and therefore contribute to the commercialisation of knowledge-intensive products as well as services. Here a knowledge marketing strategy may support the commercial exploitation of these products and services. Since research and literature in the field of knowledge marketing (especially in knowledge-intensive SMEs) is still scarce, the authors regard a qualitative research approach as appropriate. In the analysed cases, three necessary processes have been identified: (1) Developing knowledge networks, (2) solving customer problems, and (3) possessing the absorptive capacity to understand and integrate customer knowledge.

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Introduction

The increasing amount of information and in general the importance of knowledge in business are factors which lead to the creation of new types or patterns of information firms (Glazer, 1991). In general, these so-called knowledge-intensive firms are operating in knowledge markets with aims of generating revenues (Lichtenthaler, 2005). In the 21st century, the era of communication and information technology, resources responsible for the emergence of intangible assets are becoming more and more important. The resource “knowledge” is seen as a strategic resource as well as a central challenge in the business environment of this century (Spender, 1996; Boisot, 1998). The significant components for a sustainable competitive advantage represent the knowledge lead of the firm (Teece, 1998). The goal is to bundle knowledge in a way that enables firms to offer added value to their customers. The systematic handling of firm knowledge places the firm in a position to differentiate itself from competitors (Wiig, 1997). Zack *et al* (2009) showed that existing internal knowledge resources are utilised for strategic planning and that the customer is unfortunately neglected as a strategic knowledge partner. The “customer” is placed in the centre of attention when it comes to an adequate utilisation of knowledge in knowledge-intensive firms. The associated knowledge and skills that reflect customer knowledge should be integrated in the value creating activities of

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the firm through experiences, problems, and suggestions for improvement (Gibbert *et al*, 2002; Handlbauer & Renzel, 2009). Several studies show that, especially in small- to medium-sized enterprises (SMEs), resources are limited (Jarillo, 1989; Boisot, 1998; Coviello & Martin, 1999; Desouza & Awazu, 2006). As Zack *et al* (2009) and Zack (1999) describe in the field of strategic management, knowledge gaps can come about in order to reach a future strategy. As one approach, it is possible that the customer could fill these knowledge gaps in the form of a value creating complementary resource. We define these customers as “strategic”. The “strategic customer” in a knowledge-based sense is seen as, in this context, a sustainable and value creating knowledge cooperation partner rather than a passive product receiver. The goal of the following paper is to clarify processes and factors, which support the utilisation of the knowledge of strategic customers, and hence support a knowledge marketing strategy for knowledge-intensive firms. Knowledge marketing and especially the utilisation of customers’ knowledge in SMEs is one possible way to enlarge the existing knowledge base and to present it in the market. Thus, new business partners, new clients, or new employees could be attracted. Here knowledge marketing is a form of presenting knowledge of a firm as a competitive advantage and therefore enhance the competition opportunities of SMEs in the market. For this reason, the limited knowledge base of SMEs can be enhanced by the integration and utilisation of customer knowledge.

Theoretical background

Knowledge-intensive firms

In this paper, the focus is on small- and medium-sized enterprises (SMEs), which are differentiated to big enterprises mainly by the number of staff members, the annual turnover or the annual balance sheet total (Commission of the European Communities, 2003). The second focus in this paper is the concentration on knowledge-intensive firms. Today, the processing of information in firms is regarded as the critical task and the ability to do so as the critical competition requirement (Greenwood *et al*, 2005). These firms clearly differ from industrial firms in terms of value creation and the level of information asymmetry between the firm and its clients (Sheehan & Stabell, 2010). In general, knowledge-intensive firms are defined as organisations that create market value through the application of knowledge to client demands (Swart & Kinnie, 2003). When at least one-third of the personnel are experts, firms are characterised by Starbuck (1992) as knowledge-intensive. Their output must be of an exceptional expertise, which makes an important contribution (Starbuck, 1992). Therefore, they rely mainly on human and organisational resources, like experts, who are highly educated individuals, and the application of expertise to deliver their services (Swart & Kinnie, 2003; Greenwood

et al, 2005; Sheehan & Stabell, 2010). Not only the personnel is the most important resource, because of the intensive interaction with customers, but also clients are essential (Alvesson, 2000). In general, the human capital dominates products, services, and innovations (Starbuck, 1992). Nevertheless, a certain style of working and organisational culture implies additional organisation-specific knowledge (Alvesson, 2000). Other individual factors like intrinsic motivation, norms, reciprocity, and identity are enhancing an effective knowledge-sharing environment (Alvesson, 2000).

Types of customers and their integration

As already mentioned, the customer holds a central position in place. However, there are varying customer types in the corporate environment. Grönroos (2000) distinguishes different customer categories. On the one hand, the “transactional approach” states that customers are not interested in building a sustainable and intensive partnership with the firm. On the other hand, there are customers who wish to have a relationship with the firm. This concept is entitled the “relational approach”. The relational approach is divided into both active and passive partnerships. Passive-oriented customers are content when they have the possibility to contact the firm when the need arises. Active-oriented customers, in contrast, search for contact with the firm and want to actively participate in corporate affairs. These customers could also share their experiences with other customers (Parasuraman *et al*, 1985; Bettencourt, 1997; Hood, 1998; Bowers & Martin, 2007).

Customers can be integrated into the innovation phase as they possess knowledge concerning new market trends and needs of other customers as well as their expectations (Kelley *et al*, 1990). Here different scientific approaches already exist, like open innovation, client coproduction, and others. These approaches also highlighted the integration and utilisation of external knowledge sources, like firm’s customers. For example, according to the open innovation literature, open innovation is the use of inflows and outflows of knowledge to enhance internal innovation (Chesbrough *et al*, 2006). Chesbrough *et al* (2006) describe that knowledge in the open innovation paradigm is widely distributed and firms need to be well connected to external sources of knowledge. Here, customer further possesses optimal prerequisites in order to advise the firm both internally and externally if improvements and complaints are received. As a result, additional value creation activities can be improved (Bettencourt, 1997). Ultimately, their knowledge should support both the existing and newly acquired customers in terms of their purchasing processes when not only present knowledge but also latent knowledge influences their decision and purchasing behaviour (Davenport & Klahr, 1998; García-Murillo & Annabi, 2002; Schaschke, 2007). Another approach concerning how value can be generated with customers is referred to as client co-production in the “service literature”. This infers that such customers

are seen as “partial employees” and can be implemented anywhere from marketing to engineering services (Bet-tencourt *et al*, 2002). Additionally, the customer could play a strategic role, which can be defined as a trustful partnership where the customer is intrinsically motivated and represents a marginal percentage of the entire customer base (Wilhelm *et al*, 2013). Wilhelm *et al* (2013) also stated the strategic customer as customer with high potential for new connections, as good communicator, and as famous and renowned expert in their field. To integrate the knowledge of these types of customers, a knowledge marketing approach may provide possible solutions.

Processes and factors of knowledge utilisation

Here, the authors describe only a fragment of different processes and factors of knowledge utilisation, which could be observed as most important in the study. First, the identification of knowledge assets a firm possesses or needs, their possible knowledge clients as well as the knowledge product or service these clients need (Teece, 1998; von Krogh *et al*, 2001) are prerequisites of knowledge utilisation. Knowledge utilisation is defined by Backer (1993) as variety of interventions to enhance the use of knowledge. A firm by itself seldom possesses the complete set of resources required to commercialise its knowledge effectively, because new knowledge usually emerges from beyond a firm’s boundary (Lin & Wu, 2010). Here another main process of knowledge utilisation is described in the literature as coordination and governance process of knowledge assets in firms. The heterogeneity of knowledge and participants who possess knowledge require coordination in order for firms to succeed (Antonelli, 2006). In general, the coordination and governance of knowledge are dominated by different factors like identifying the appropriate knowledge and the intended application (Hicks *et al*, 2002), finding knowledge providers and recipients, evaluating knowledge assets, or determining the knowledge value (Chen *et al*, 2010).

Additional factors for utilising knowledge are described in the current literature as the focus of solving problems of customers and the ability of firms to absorb knowledge. Firms leverage their intellectual capital and package it into high value-added knowledge-based products and differentiated services, which are capable of solving customer problems (Chen *et al*, 2010). Therefore, task-specific information of firm’s customers are especially relevant for problem-solving services (Verona *et al*, 2006; Consoli & Elche-Hortelano, 2010). With technological tools of customer relationship management (Massey *et al*, 2001), the development of customised services and products is supported and the ability of firms to expand their knowledge is maintained (Verona *et al*, 2006). The capability of firms to absorb knowledge or to innovate from their current knowledge assets (Chen *et al*, 2010) is the ability of a firm to recognise the value of new, external information, assimilate it, and apply it (Cohen &

Levinthal, 1990). Teigland & Wasko (2003) explain the absorptive capacity as combining existing internal knowledge with novel external knowledge to develop creative solutions and improve performance.

Knowledge marketing

Since research and literature in the field of knowledge marketing (especially in knowledge-intensive SMEs) is still scarce, here is just a brief approach to define knowledge marketing, which is specific form of marketing. The knowledge marketing is clearly distinct to the marketing of industrial goods, because of the specific characteristics of knowledge goods (Rode, 2001). It is very similar to the theory of service marketing (Grönroos, 2000; Vargo & Lusch, 2008), but still needs to be approached differently because the resource knowledge is not simply the same as services. Therefore, knowledge marketing and an adequate utilisation of knowledge resources may be seen as further development of the traditional marketing mix approach and the customer relationship management approach in the general scientific research of marketing. In result, marketing of these knowledge products and services is a highly challenging task for knowledge-intensive firms, especially because of the imperfections of knowledge markets and the disproportionately risk of opportunistic behaviour of participants in these markets (Rode, 2001; Lichtenthaler, 2005). For the successful performance of knowledge marketing, different resources need to be available in the participating firms: knowledge, experiences, talents, infrastructure, customer, reputation, business relations, alumni, financial capital, and sponsors (Rode, 2001). In knowledge marketing, the primary asset is the firm’s knowledge base for the commercialisation of knowledge (Lichtenthaler, 2005). Therefore, the human or intellectual capital of firms (Edvinsson & Malone, 1997; Zabala *et al*, 2005) is in focus of interests. Additionally, the firm’s reputation increases the value of knowledge for buyers (Zhuge & Guo, 2007; Weiss *et al*, 2008). Acquiring a reputation as an innovator may facilitate firms’ access to financing, may make it easier to get contracts, grants, and subsidies, or hire the best researchers (Muller & Pénin, 2006; Rodger, 2012). Therefore, the aim of knowledge marketing is also to develop the reputation of knowledge-intensive firms. Knowledge marketing theory is still in an earlier stage of development; hence, the authors put a lot of effort into summarizing different main knowledge utilisation processes and factors described in theory and further empirically prove those in different case studies.

Research methodology

Research questions and research design

Accumulated from the above-derived topics from literature, the following main research question emerges: How do firms utilise and integrate strategic customers’

knowledge for a knowledge marketing strategy? As further sub-questions derived from the main research question, following research questions, which concretely target the specific contents, can be formulated: How do firms use various forms of knowledge utilisation in main business activities and which processes or factors of knowledge utilisation are most important? And which additional factors for knowledge marketing strategies in knowledge-intensive SMEs should be considered?

Fourteen executives and managers were interviewed using semi-structured interviews. The interviewees were chosen in collaboration with employees of the firm, who are responsible for knowledge utilisation. The individual interviewees apply the resource knowledge in different areas of the firm. The strength of interviews in case studies is that they are directly targeted towards the described topic and provide a multiple wealth of details (Merriam, 1991; Flyvbjerg, 2006). All data collected relate to the cases and correspond to the research design in Figure 1.

Units of analysis

The units of analysis were selected according to the research questions and pertaining circumstances. Therefore, two firms situated in knowledge-intensive industries were chosen as units of analysis. In both cases, the industry displays remarkably dynamic characteristics and the resource knowledge is crucial for economic success. The following criteria were specifically necessary for the choice of the firms:

- Firm’s businesses are realised through the application of knowledge
- Most operations and activities are based on intellectual capital and well-educated, qualified employees make up the majority of the workforce
- Flexibility and open knowledge disclosure are integrated into the firms’ culture
- Firms were created and follow a customer orientation towards a problem–solution strategy
- Firms operate using a relatively flat hierarchy system (hardly any bureaucracy)

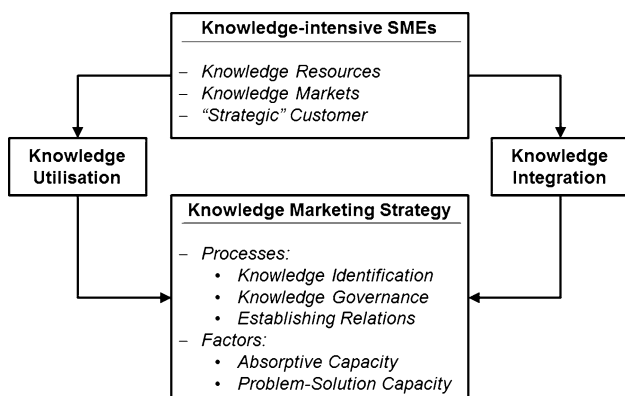


Figure 1 Research design.

SME A considers itself as an innovative software developer that is clearly in alignment with the customer needs of modern ENT-clinics. The firm’s headquarter is located in the Principality of Liechtenstein (Rhine valley). In the moment of examination, the firm had 18 employees, whereas most of them are graduates who have obtained a university degree. Because of the specific application of individual programs as well as the database that is seen as a complementary product to the clinic information system, the firm effectively operates in a niche market. This implies that the demand is relatively small and there are only few directly competitive products in the market. Despite its activity in a niche market, the firm serves international customers in over 20 countries.

SME B is a leading firm in the numismatic industry offering specialised project management for the development and trade of different kinds of commemorative coins. The numismatic industry is small and familial. The firm discerns itself as a “first mover” in different markets and always tries to tap into new markets. With 29 employees, the firm’s main business activities take place in the business-to-business (B2B) sector. Most of the firm’s employees were novices in the business. However, the employees’ different backgrounds combined with their newly acquired knowledge and experience are the main source of competitive advantage.

Level of analysis (approach and selection of interviewees)

The selected firms provide an excellent research unit based on the chosen focus of knowledge-intensive firms. Retrospectively, the authors put strong emphasis on integrating various perspectives concerning the selection of interviewees such as different departments and positions within the firms, as well as distributors and strategic customers. In doing so, much broader data could be acquired, which should consequently reveal more meaningful findings. In conclusion, fourteen individuals were chosen and interviewed in this study.

The duration of the interview depended on the individual and lasted between 30 and 90 min. The individual interviews were recorded and subsequently transcribed in the time frame from January 2012 until November 2014. The characteristics of the interviewees are summarised in Table 1. Each interviewee was answering to a questionnaire, developed and designed to meet the different topics, like the processes of knowledge utilisation (identification, establishing relations, transfer, etc.), the factors of knowledge utilisation (problem–solution, absorptive capacity, etc.), and the knowledge-intensive business of the studied firms.

Method of data analysis

The information gathered from the data collection were analysed in six steps (Bogner *et al*, 2009). For this purpose, the interviews needed to be transcribed beforehand (Saunders & Lewis, 2012). Hence, the single

Table 1 Interviewees

Position	SME A	SME B
CEO	Interviewee 1	Interviewee 10
COO		Interviewee 11
Strategy		Interviewee 12
Marketing & sales (M&S)	Interviewee 2	Interviewee 13
Research and development (R&D)	Interviewee 3/4/5	Interviewee 14
Supervisory board	Interviewee 6	
Strategic consultant	Interviewee 7/8	
Strategic customer	Interviewee 9	

interviews were recorded allowing the authors to completely transcribe them. Subsequently, the content of the fourteen interview protocols was structured according to topics. For this purpose, the authors created a matrix to visualise the thematic analysis. The answers of the interviewees were processed according to their content and then entered into the corresponding fields of the matrix. Subsequently, the statements of the interviewees were summarised according to their affiliation of the examined department. As a consequence, a new matrix, divided into the department management, sales, and R&D, was developed and displayed the core statements from the strategic customer's view on the particular sections of questions.

The next step contained the evaluation, in which the authors strived for a conceptualisation of the contents. The evaluation of data followed after the qualitative analysis of contents according to Mayring (2010). Mayring (2010) distinguishes four different techniques of qualitative analysis. The evaluation of the interviews is based on the technique of "summarization". Here, the first step included the selection of the representative partial quantity that relates to the research question and, subsequently, its categorisation. The structure of the interview guide served as a starting point for the categorisation. After the categorisation, the contents of the interview protocols were assigned to the predefined categories. Afterwards, the data could be examined and analysed. Also, the result was discussed and theory was compared to practice (Gläser & Laudel, 2010; Mayring, 2010). The evaluation of data ended with a theoretical generalisation. In this step, the specific themes are abstracted and compared to theory. The assessment of available business records, which are relevant to the examined process, supports the data analysis.

Presentation of findings

The strategy of the analysed firms emphasises that the needs of the customers are satisfied to the highest degree and so the end customers of the firms' customers can be given products, services, and treatments of highest quality. Based on this strategic thinking, the products

must be ideally customised to the customers' needs, which is why these firms constantly advance their products by integrating customer and strategic partner feedback originating in problems they have experienced. Three main focus areas could be summarised from the different interviewees, namely, establishing relations, solving customer problems, and possessing the absorptive capacity. These areas mainly consist of the main processes and factors of knowledge utilisation described in the theoretical part, for example knowledge identification for establishing relations or knowledge governance for solving customer problems. The firms aim constantly at building long-term relations with the stakeholders and gaining knowledge advantage over competitors.

... our main knowledge resources lie in our cooperative relations with our customers and partners, that's why we have a huge competitive advantage. [Interviewees 1, 13 & 14]

Developing knowledge networks (establishing relations)

The identification of different knowledge sources to generate or adapt products or services of the firms stands at the very beginning of the process and represents much more than a routine. Due to the limited resources of the observed firms, it is dependent on additional external sources of knowledge. Both firms not only struggle with finding adequate resources such as strategic customers or partners, they also need to have a workforce and capable systems to implement that external knowledge. Therefore, SME A employs more than 15 workers with academic degrees. The general structure of both firms and their flat hierarchies enable the employees to exchange internal knowledge more easily and without formal barriers. A technology-based system of knowledge storage (Intranet) helps to connect different employees in project-based processes. Here, team meetings on a regular basis support the internal sharing knowledge acquired from customers. According to statements of interviewees, the external knowledge perspective plays a crucial role in SME A and SME B. In particular, strategic customers (SME A) and strategic partners (SME B) who are active participants and value-adding, form this external knowledge perspective. Here, personal interaction is regarded as the basis for effective knowledge networks.

"... internal meetings on a regular basis and visits to our stakeholders are organized to get in touch." [Interviewees 1 & 11]

Establishing trustworthy relationships with these customers constitutes an inevitable prerequisite for the transfer of knowledge. Once more, the integration of knowledge of strategic customers or partners depends on the employees' willingness to receive knowledge, and the customers' willingness to provide knowledge. Here, the degree of openness for knowledge exchange is influenced by people, knowledge assets, and business objectives of the firms. In the analysed SME A, the strategic customer

and the firm both seek to develop a sustainable and value-adding relationship. Since they have a major impact on developed innovations, customers embody a vital factor in the process:

It does not work without cooperating with the customer, to add value to the programs; because otherwise we would develop things that are not needed. [Interviewee 1 & 4]

Especially social determinants like trust, reputation, rewards, and motivational factors are essential for establishing potent economic relations. The authors recognised these items of relationship building in different activities and situations inside and outside of the firms. SME A's customers particularly consider reputation and trust (word-of-mouth) when deciding for a firm and its products. In SME B, the relationship to the strategic partner is built on trust raised in the long-termed business contact. Additionally specified rewards for successful relations with sales partners are used to maintain the relationships. In this context, word-of-mouth advertising is described as an important element in relation to the firm's reputation in both analysed cases.

That's the way how we are perceived, it's word-of-mouth advertising, which is the best advertisement. [Interviewees 2, 11 & 12]

Nevertheless, relationships and cooperation of employees within firm boundaries are also very important for the adequate usage of knowledge. Here, a system of rewarding for knowledge exchange and other motivation factors, like trust, could be acknowledged in the SME A. This indicates that incentives are not based on an extrinsic, but rather on an intrinsic level. During exhibition participations of both firms, it could be observed that knowledge exchange occurred on an implicit knowledge level. The concrete acknowledgements between strategic customers or partners and the observed firms could be elicited and discussed. The empirical analysis showed that the communication channel only occurred directly and was based on concrete experiences. The strategic customer of SME A (Interviewee 5) described this as follows:

That occurs by telephone. I sit down and concretely bring my ideas together.

Additionally, knowledge resulting from face-to-face meetings is passed on very openly. Both SMEs regard trade fairs and congresses, where they can present their knowledge, as major instruments of communication with their external stakeholders.

We normally have our meetings in person, face-to-face with our partners, to get all impressions. [Interviewees 4, 12 & 14]

The communication within the internal and external knowledge exchange constitutes the knowledge network. Factors such as the choice of people-based communication channels, experiences, and trust are crucial for the establishment of a knowledge network. In general, the

participants in knowledge networks are different stakeholders of the firms: employees, management, strategic customers, or partners.

Solving customer problems (coordination & governance of knowledge)

The coordination and governance of knowledge transactions between the analysed cases and the strategic customers and partners serves and seeks to assure the protection of intellectual capital of the firm and correspondence to the needs of the customer and partners. In this context, we have to take into consideration that in SME A from the medical industry, it is highly important to handle patient-information confidentially and to locate further data of strategic customers correctly, since other customers are competitors and, therefore, it would be counterproductive. The CEO (Interviewee 1) of SME A mentions that sometimes both parties are bound to confidentiality agreements, since some customers insist on such a contract, because generally sensitive data are revealed and shared. In further interviews of SME A, it was determined that the internal firm knowledge is "hardly" shared with customers. More commonly, new databases are created based on customer input and example criteria. In reference to the IT department, employees share only very little information with customers (Interviewee 2). Interviewee (3) explains this fact as follows:

From the view of the firm, we share relatively little with customers, I mean technically. The customer simply knows how the system functions but only in the meaning of who can use it. What and how the method of programming occurs is not shared with the customer.

SME B, in the numismatic industry, is also protecting their internal knowledge, which is presented and sometimes transferred. The firm is providing knowledge through non-disclosure clauses and exclusivity agreements. Both cases show a limited knowledge-sharing strategy to protect their internal knowledge. However, for SME A when creating customer-oriented software products, it is inevitable to integrate the customer into all phases of development. Therefore, flexibility, experiences, and problem-solving competences of employees are essential. Employees, who are directly in contact with customers, must know about the firm's own competences and the customers' needs in order to connect these two components. Technology, such as a CRM system, enables employees to oversee internal and external knowledge resources. However, generally it depends on the frequency and intensity of conversations between customers and employees. In SME B, the customer needs and the needs of strategic partners are fulfilled by constantly interacting with them. Thereby problem solutions and innovations are developed in close cooperation and directly related to business situations.

Through personal and direct interaction, most problems are solved in the firm. [Interviewees 3 & 13]

Possessing the absorptive capacity to understand and integrate customer knowledge

The capacity of absorbing knowledge from external sources is enabled by the whole workforce and is not dependent on only one person or team. Here information, even from other departments in the firms, become highly crucial. In SME A, this varies from R&D up to the marketing department in different parts of the value chain, as Interviewee 2 argues:

The employees are not medics, in fact they are specialists in the field of software development, but in order to fill the software with medical knowledge, develop new products, and facilitate growth customer knowledge is certainly necessary.

In SME B, the trustful and long-lasting relationship to the strategic partner is one prerequisite for generating adequate absorptive capacity of the firm. If knowledge or information cannot be absorbed at the moment, employees and strategic partners work together on available competencies and resources inside the firm, so the understanding of external request or information can be provided.

We often come up with technologies, that our main supply partner cannot implement at this moment. But then he shies away from no risk and invest in new machines. And we often try to also invest in these machines with him. [Interviewees 10 & 11]

Due to the fact that knowledge as well as absorptive capacity can be regarded as intangible assets of a firm, it is very difficult to delineate the decisive conditions and factors for optimally integrating customer knowledge. One obvious way to integrate customer knowledge into a firm's knowledge base is the structured documentation and management of knowledge with the support of information technology. In point of fact, most of the knowledge exists in the minds of the individual employees. The analysis revealed that the documentation and management of such explications were facing limits in terms of time and extent, as Interviewee 1 described:

We don't have time to sit down and record all thoughts about the customers in detail and then codify them. But if I am totally convinced then I would note a key word or two somewhere in a document.

The knowledge bases of the studied firms are strongly based on the knowledge and experience of the firm's employees in this industry. Since customer knowledge, which should be integrated, is firmly related to the core business of the firm, the absorptive capacity simultaneously grows and allows the employee to understand and implement more and more customer needs. Additionally, through the active participation of the strategic customer and partners of the firms, the implementation of the new ideas leads to a better product, this again serves as a key motivational factor for them.

With our penetrating way to design ideas and new technologies with our the partners, we also help them in newly generated markets to be leader. [Interviewee 10]

The ability to generate value in cooperation with the customers and partners, or the absorptive capacity, depends on the level (intensity) of collaboration and is further used for different value-creating activities, most of all in product development activities. Additionally, the motivation of the external partners and customers to share his or her knowledge and the shared information's relevance for product development play decisive roles.

Conclusions

The present paper is targeting the question of "How do firms utilise and integrate strategic customers' knowledge for a knowledge marketing strategy?" Especially, the integration and utilisation of customer and their knowledge are analysed in knowledge-intensive firms. Therefore, different certain factors of knowledge resources, knowledge markets and the strategic customer have decisive influences on the performance of knowledge-intensive firms. We point out, empirically, that three necessary processes have been identified: (1) Developing knowledge networks, (2) solving customer problems, and (3) possessing the absorptive capacity to understand and integrate customer knowledge. Based on the collected data, by use of interviews, these three processes could be confirmed.

Integrating customer's knowledge

It became clear in this study that firms, which have the opportunity to exchange knowledge internally more easily and without formal barriers, could be referred to as "Management by Corridor" (Durst & Wilhelm, 2011). This pragmatic approach outlines an important factor in order to absorb customer knowledge. The capacity of absorbing knowledge from external sources is enabled by the whole workforce and is not dependent on one single person or team and is distributed in different value-creating activities, as described by Cohen & Levinthal (1990). As soon as the knowledge of strategic customer and partners is integrated into the organisational knowledge base, the basic requirements for successful knowledge marketing according to Rode (2001) are fulfilled, such as knowledge, experiences, customer, or business relations. Another important key element for the commercialisation of the strategic customer's knowledge is his or her motivation to collaborate with the firm and act as an active knowledge partner. As seen in Gibbert *et al* (2002), the empirical results suggest that valuable customers feel valued through their integration in the value-creation process and thereby could pave the way for sales activities (customer profiling). Based on these factors, it is only possible to conduct knowledge marketing after a successful identification of strategic customers or partners and their knowledge.

Knowledge networks have been analysed in two different business cases. These networks may serve as instruments to integrate the knowledge of strategic customers and partners. According to Seufert *et al* (1999) knowledge networks are a number of people or resources, which accompanied to use and transfer knowledge. These knowledge networks must be backed up by modern communication technologies and participants should have a common language and a common set of values and objectives to become successful in knowledge-intensive firms (Seufert *et al*, 1999). Different steps to facilitate these knowledge networks can be described out of the analysed cases. First of all, an adequate identification of strategic customers and partners is the prerequisite to find additional relevant knowledge. Secondly, to get in contact with valuable strategic customers and partners for establishing a generative business relationships. Third, these strategic individuals need to be motivated and their individual advantages of a cooperation with firms need to be highlighted. Fourth, the realisation of different integration options in business activities. And finally, the outcomes of this cooperation between firms and their stakeholder need to be also shared with the participants of the knowledge network.

One major challenge for knowledge-intensive firms is not only the integration of general knowledge resources, but also integration of the more apparent implicit kind of knowledge from customers and partners, like experiences, ideas, or expertise. In both cases the process of integration was realised through personal and individual customised interaction. These interactions seem to be very time- and resource-intensive way for SMEs, but proofed to be advantageous.

Knowledge utilisation in knowledge-intensive SMEs

Particularly knowledge-intensive SMEs, which have to deal with limited resources (Jarillo, 1989; Pelham & Wilson, 1995), can additionally benefit by carrying out knowledge marketing. Through the integration of strategic customers, the knowledge base can be expanded. The main difference between SMEs and bigger-sized enterprises, for example multi-national enterprises, is that SMEs may utilise and integrate customer knowledge more through personal relations between employees and strategic customers or business partners. A knowledge-sharing culture as a social network (Ramanigopal, 2013) is a necessary requirement to build valuable relations within the firm as well as outside the firm (with customers) (Clarke and Rollo, 2001). To gain knowledge outside the firm's boundaries, employees must act customer-oriented and solving customer problems must be the main priority. Here, task-specific information are collected from the firm's customers. In order to integrate these information, the absorptive capacity embodied in people is the key element. The cases show that employees can only utilise customer knowledge for innovations, if they have the required skills to understand relevant information and to integrate this knowledge into the product (Spithoven and Teirlinck,

2010). In SME A, this integration process is following a one-way strategy and internal knowledge is protected or not shared with customers, for example. In contrast, in SME B the knowledge from customers or partners is not only integrated, but also internal knowledge is shared with them. Disclosure agreements are used to protect the internal knowledge. In theory, Chesbrough *et al* (2006) describe that knowledge in the open innovation paradigm is widely distributed and firms need to be well connected to external sources of knowledge. SME B follows an open innovation approach, because all involved parties could gain more achievements from the cooperation. Like in the public sector, the open science attitude describes that all participants benefit from greater knowledge spill overs (Krätke, 2010).

In their works, Lichtenthaler (2005) and Chen *et al* (2010) argued that the commercialisation of knowledge supports the firm's ability to exactly satisfy customer needs and impart the characteristics of the products/services to customers. The empirical results of this study can only confirm this and additionally recommend an integrated knowledge marketing approach, in which the authors determined that the integration of strategic customers, including the developmental phase, facilitates problem-solving by means of feedback loops. This means that a close and trustful relationship to strategic customers enhances, first of all, the detection of market demands, the development of products to meet these demands, and later on the improvement of products and overall firm performances.

Implications

Due to the novelty of the topic, in regard to knowledge marketing, first empirical analyses could contribute to broaden the field in terms of the literature. As shown in Figure 2, three processes (1) developing knowledge networks, (2) solving customer problems, and (3) maintaining absorptive capacity could be proven empirically by the conducted analysis. The current literature could be enriched through this study by highlighting the importance of different processes of knowledge utilisation and therefore simplify the way of presenting, commercializing, and integrating knowledge resources of knowledge-intensive firms. These results may help knowledge-intensive SMEs to solve strategic questions on internal knowledge transfers, external knowledge acquisition, and general on knowledge utilisation. Clarifying different activities of knowledge marketing could support scholars in implicating a knowledge-specified perspective marketing in the current scientific literature. In addition, the field of knowledge utilisation gained another perspective by deepening the integrated knowledge marketing approach and therefore could be summarised into different processes and factors.

Through an integrated knowledge marketing approach, as analysed in the cases, managers can identify their strategic customers/partners more easily and utilise their

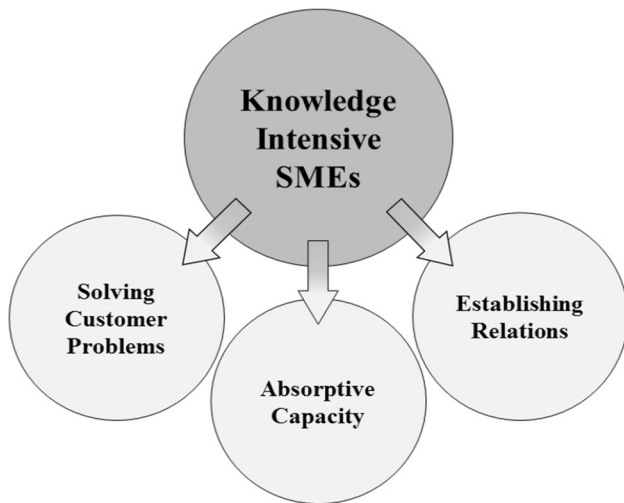


Figure 2 Processes and Factors of knowledge-intensive SMEs.

knowledge. The establishment of relations and integration of important customers can now be executed in a more focused way and, thus, more efficient solutions for customers can be found. All of these processes serve the management in order to sell knowledge-intensive products/services more easily. Especially, knowledge-intensive SMEs, which only possess a limited resource base, may distribute their products more easily with the support of these processes as well as with an integrated knowledge marketing approach. By integrating and utilising important customer knowledge, they are able to continuously refine their products and are not solely dependent on the firm's internal resources. The integration of customer knowledge is supported by different factors described in the presented cases, like firm's reputation, or reward and motivation systems. These processes are representing a more holistic approach to knowledge marketing and therefore support knowledge-intensive SMEs by developing an adequate marketing strategy in a knowledge-intensive industry. An adequate utilisation of strategic customers' knowledge may not only consider of these three processes since knowledge utilisation is influenced by different firm' contexts. In relation to the marketing perspective described in the cases, the utilisation of knowledge may focus on stakeholders (employees, customers or partners) of a firm and their individual characteristics. The implicit knowledge of these stakeholder may be integrated by the use of communities of practice (CoP). These communities of practice are learning instruments and significant sites of innovating (Brown & Duguid, 1991). Brown & Duguid (1991) highlight the creation and transfer of knowledge between all participants in the community. The authors recognised in SME A that customer knowledge was integrated in the firm, but not shared externally. In comparison, in SME B the exchange of knowledge was more two-sided

and items of a CoP could be recognised. Another way of integrating and utilising implicit knowledge is to highlight the social aspects of knowledge networks and enhance social relationships to customers and partners. The process of integrating depends not only on data storage, it must recognise the individuals who possess implicit knowledge and build trustful relations to them.

In general the processes of integration and utilisation of knowledge should be managed and organised properly in knowledge-intensive firms. In order to manage these processes, formalised knowledge networks and adequate resource planning are most important for SMEs. Additionally, the goals of integrating and utilising external knowledge should be linked to the overall business goals of knowledge-intensive SMEs. A knowledge marketing approach which summarises both knowledge integrating and utilising strategies may serve for SMEs as instrument to increase the firm knowledge base and therefore increase the innovation performance of the firm. In general, other SMEs may adapt from the analysed cases that knowledge marketing depends on the existing relationships of the knowledge-intensive firm and the firm capabilities to integrate and utilise external knowledge. A personal, customised relation to strategic customers and partners may also support other firms in increasing limited resources of SMEs.

Limitations and future research

Some limitations of this article can be found in the limited generalisation of the cases, accordingly to the use of an alternate method to investigate knowledge marketing in a particular organisational setting. The empirical results cannot be easily transferred to other industries or business cases because of the special characteristics of the analysed firms and their environments. But in general, the approach of knowledge marketing in relation to customer knowledge and knowledge networks may clarify some of the future tasks of knowledge-intensive firms, which have to deal with the challenges in very similar knowledge-intensive environments. However, in order to further confirm the results, additional empirical studies must be conducted. For example, acknowledging the importance of communities of practice (CoP). New CoPs for SMEs and their stakeholder or existing CoPs of SMEs may be analysed and reasons for high-performing CoPs are further described. Additionally, the advantages of sharing internal knowledge with customers or partners in a knowledge marketing strategy may be highlighted in further studies to change traditional knowledge protecting approaches of knowledge-intensive firms. Finally, future research should have a closer look on firm variables, like reputation, motivation or trust and their influences in knowledge marketing approaches.

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