

WHAT FACTORS ENHANCE INTRA-ORGANIZATIONAL CUSTOMER KNOWLEDGE SHARING IN INTERNATIONAL KEY ACCOUNT MANAGEMENT?

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Competitive paper

ABSTRACT

Considerable research during the last decade has highlighted the importance of customer-related knowledge in the management of profitable long-term customer relationships (e.g. Campbell, 2003; García-Murillo and Annabi, 2002; Gebert et al. 2003; Gibbert et al., 2002; Jayachandran et al., 2005; Rowley, 2002; Salomann et al., 2005). It is now recognized that firms should not only generate knowledge about aggregate markets, but also about and from their individual customers.

The ability of the firm to utilize customer knowledge for creating added value to the customer and managing the customer relationship in a consistent manner, requires that the supplier firm has appropriate processes for coordinating internal customer-specific knowledge flows (Jayachandran et al., 2005). This is especially important in the management of international key account customers (Arnold et al., 2001; Birkinshaw et al., 2001; Shi et al., 2005) due to the multiple contact points between the supplier and the account, a high number of actors involved in the management of the relationship, and the extensive geographical scope of the relationship (Birkinshaw et al., 2000; Shi et al., 2005).

Despite the increasing importance of customer-specific knowledge processing in the context of international key account management (Arnold et al, 2001), there is still a lack of research focusing on the intra-organizational factors that promote the internal sharing of customer-specific knowledge within supplier firms. To date, knowledge processes in marketing organizations have mainly been studied on a more aggregate level, for example in market orientation studies that focus on generation, dissemination and responsiveness to market knowledge (e.g. Kohli and Jaworski, 1990). However, these studies fail to increase our understanding on the factors that promote internal customer knowledge sharing about and from specific customers. Given this gap in research, the aim of the study is to examine *what intra-organizational factors enhance customer knowledge sharing in the context of international key account management*. The findings of the study build on a survey data gathered from large industrial firms in Finland. The findings of a hierarchical regression analysis show that CRM technology, KAM team esprit corps, use of sales teams and customer's demand for consistent service have a positive impact on customer knowledge sharing. Moreover, the findings show that CRM technology has a positive moderating effect on the relationship between esprit de corps and customer knowledge sharing.

Keywords: customer knowledge, key account, key account management

INTRODUCTION

The ability of a firm to share customer knowledge internally is of fundamental importance in the management of large, geographically extensive international key accounts (Birkinshaw et al., 2001; Shi et al., 2005). Key accounts are increasingly rationalizing their supplier base, and demanding for more consistent offerings and terms of trade worldwide from their suppliers (Montgomery and Yip, 2000; Sheth and Sharma, 2008). In order to meet such demands, supplier firms need to have efficient internal knowledge processes and systems that facilitate the management of the key account relationship in a consistent manner organization-wide across geographical borders. This means that all information concerning the customer has to be stored and accessible by relevant employees. For example, in order to maintain credibility in the eyes of the customer, the key account manager has to be aware of all the products and services offered to the customer, all activities and forms of cooperation and possible problem cases between the two firms (Hennessey and Jeannet, 2003, 203).

However, previous literature indicates that customer knowledge is not easy to manage because it is dynamic and often tacit in nature (Davenport and Klahr, 1998; Day, 2000). Moreover, there are several individual, organizational and technological barriers that hamper knowledge sharing within organizations (Riege, 2005). Although the importance of customer knowledge has been widely addressed in the literature (e.g. Campbell, 2003; Day, 2003; García-Murillo and Annabi, 2002; Gibbert et al., 2002; Rowley, 2004; Salomann et al., 2005), and barriers of knowledge sharing in general acknowledged (e.g. Gupta et al., 2000; Riege 2005) only a few studies have focused on the sharing of customer-specific knowledge especially in the context of international key account management.

Considering the above research gap, this paper aims at increasing our understanding on the determinants of internal customer knowledge sharing in the context of international key account management. This is important because the organization-level customer knowledge and customer knowledge competence (Campbell, 2003) is dependent on the extent to which employees share knowledge with each others (Gupta and Govindarajan, 2000; Nonaka, 1994). As such, the paper also attempts to answer to a call for more research on intra-organizational aspects of KAM that according to Workman et al. (2003) have often been neglected in the literature. The remainder of the article is organized as follows: First, the specific features of international key account management and customer knowledge sharing are reviewed. Next, the determinants of customer knowledge sharing are discussed and research hypotheses developed. Then, research design and results of empirical analyses are presented. The concluding section presents the key findings, limitations and suggestions for future research.

INTERNATIONAL KEY ACCOUNT MANAGEMENT

Key account management practices have become a widely accepted way of doing business in several companies during the last decades as it has been discovered that not all customers are equal in terms of profitability (e.g. Cooper and Kaplan, 1991; Storbacka, 1997; van Raaij et al., 2003). According to the key account management philosophy companies must identify their strategically most important accounts, analyze them, select appropriate strategies for them and to

develop operational capabilities for building and nurturing the relationship (Ojasalo, 2001; McDonald et al., 1997). By directing the resources to the most important accounts and developing long-term relationships with them companies are able to increase their sales and profitability (Kalwani and Narayandas, 1995; Workman et al., 2003).

The globalization of business environment and supply chains and market consolidation have driven supplier firms to aim at worldwide consistency in managing their strategically important international key accounts. Customers are more increasingly demanding for consistent products, services and prices on a worldwide basis (Wilson and Weilbaker, 2004; Yip and Madsen 1996). Because customers in different industrial fields expect suppliers to serve them wherever they themselves operate, firms have implemented specific global account management (GAM) programs that elevate traditional key account management to a new level. The purpose of GAM programs is to coordinate and integrate worldwide activities of servicing a single global customer (Montgomery and Yip, 2000). GAM may be considered as an extension of traditional key account management, as it widens the scope of key account management across a number of countries (Yip and Madsen, 1996), involving a higher level of both intra-organizational and inter-organizational complexity and cultural diversity compared to the traditional KAM (Gosselin and Bauwen, 2006; Shi et al., 2005). This study utilizes the term key account, as the focus lies in the management of international, but not necessarily truly global key accounts. However, key account's demand for consistent service is controlled in the analyses.

CUSTOMER KNOWLEDGE SHARING

Knowledge sharing has received considerable research attention especially during the last decade. The importance of organizational knowledge sharing activities has been identified for example in the context of new product development and innovation (e.g. Hong et al., 2004). Knowledge sharing has been studied from different perspectives such as between individuals (e.g. Geiger and Turley, 2005), across units, organizations or within networks (e.g. Lam and Lambermont-Ford, 2010; Zboralski, 2009). In addition, there is a wide stream of research focusing on the specific features of knowledge sharing in MNC's (e.g. Buckley and Carter, 2004; Gupta and Govindarajan, 1994; Mäkelä et al. 2007). However, although recent years have witnessed an emerging field of study referred to as "customer knowledge management" (e.g., Campbell, 2003; García-Murillo and Annabi, 2002; Gebert et al., 2003; Gibbert et al., 2002; Salomann et al., 2005), only little research has been conducted on the specific features of intra-organizational customer-specific knowledge sharing for the purposes of relationship enhancement with strategically important key account customers. Customer knowledge management line of research builds on the recognition that the management and cultivation of customer relationships enable firms to leverage their customer-specific knowledge assets (Campbell, 2003; Jayachandran et al., 2005; Salomann et al., 2005). The development of customer knowledge enhances new product performance (Joshi and Sharma, 2004), and thus in its part contributes to the creation of competitive advantage. Customer knowledge is also essential in the process of developing customer relationships, which are increasingly recognized as competitive assets that are equal in value to the other financial assets of the company (Galbreath, 2002).

The literature on the management of customer knowledge emphasizes that companies should generate information not only *about* their customers but also *from* them (e.g., García-Murillo and Annabi, 2002; Gibbert et al., 2002; Rowley, 2002). Thus, this view adds to the traditional knowledge management perspective which recognizes customers as a source of information by accentuating the generation of customer knowledge, especially in interaction with the customer. Customer knowledge management emphasizes not only generating explicit knowledge about customers (e.g., customer-specific data on sales records and past purchases, and written customer-visit reports) but also acquiring tacit customer relationship-specific knowledge. Explicit knowledge is objective and rational, and can be communicated and shared easily (Gupta et al., 2000), whereas tacit customer-relationship-specific knowledge builds strongly on prior experience and is thus difficult for competitors to acquire or imitate (Wernerfelt, 1984). Gibbert et al. (2002) argue that the ability to manage customer knowledge will enable the identification of new market opportunities and new modes of operating, and create measurable benefits to the company, its shareholders and the customer. Until recently, research on customer knowledge management has mainly focused on the inter-organizational flow of knowledge between the buyer and the seller (e.g., García-Murillo and Annabi, 2002), leaving the actual organization-wide ‘management of customer knowledge’ from the perspective of the supplier unresearched.

This study adopts the process view of Darroch’s (2003) definition of knowledge management, meaning that the management of customer knowledge consists of three processes: acquisition, intra-organizational sharing, and utilization of customer knowledge. This view is conceptually related to the market orientation construct, which Kohli and Jaworski (1990) define as behavior related to the generation and dissemination of, and responsiveness to market intelligence. However, this study specifies the object of the knowledge processing to an individual key account customer level. Hence, the generated knowledge is also customer-specific, which is a clear distinction to market-oriented knowledge in which the processing behaviors generate knowledge about aggregated markets (see e.g., Campbell, 2003; Jayachandran et al., 2005; Helfert et al., 2002).

In this paper, customer knowledge sharing refers to the intra-organizational flow of customer knowledge, involving the extent of key account-related knowledge sharing and transfer within a given key account organization. Knowledge sharing occurs both formally (e.g., via intranets or other knowledge-sharing platforms) and informally (e.g., via hall-way discussions and over lunch), in both vertical and horizontal directions (Kohli and Jaworski, 1990). Knowledge sharing is an essential phase of customer knowledge processing, since it provides the basis for managing customer relationships as complete entities organization-wide.

The role of customer knowledge sharing in international key account management

As the context of key account management becomes international also the related knowledge needs are elevated to a new level (Arnold et al., 2001). Key account managers involved with international customers need to learn to know their customers organization-wide (Campbell, 2003; Weitz and Bradford, 1999) in order to be able to sense new opportunities in the market and create added value. In addition to the knowledge about strengths, weaknesses, opportunities, threats, and strategies of the customer (Weitz and Bradford, 1999), they also need sophisticated

knowledge about the various markets in which the customer operates (Harvey et al., 2003; Shi et al., 2004). Moreover, the management of a relationship with even one single international key account involves the management of a network or a web of relationships, which further results in the dispersion of customer knowledge within the supplier's organization (Birkinshaw et al., 2001). The decision-making-related information should be gathered from multiple countries and from culturally heterogeneous group members, over whom the team leader typically does not have clear authority (Harvey et al., 2003). Typically, the integration of worldwide customer-specific sales records can be a great challenge for firms if the internal reporting systems are not compatible for the sales made through variety of different channels (Arnold et al., 2000).

Harvey et al. (2003) accentuated the role of customer-related competencies, such as the abilities to “assess, leverage and integrate diverse customer knowledge bases”, as a major source of success for the key account managers working in a constantly globalizing business environment. Contributing to the essential role of knowledge sharing, Birkinshaw et al. (2001) found that the internal communication inside the supplier organization was even a stronger predictor of account performance than communication with the customer. This result was explained by the tendency of key account managers to work closely with the customers and know their customers better than their own firms. However, despite the growing importance of customer knowledge, prior studies have devoted only a little attention to examining the determinants of customer-specific knowledge sharing inside supplier organizations, especially in international context. In the following chapter we propose such determinants based on previous literature and present our research hypotheses.

HYPOTHESES

In their recent review on past knowledge sharing research Wang and Noe (2010) categorize the determinants of knowledge sharing behaviors into five groups based on their topical context: factors concerning organizational context (management support, rewards/incentives and organizational structure), interpersonal and team characteristics (such as diversity and social networks), cultural characteristics such as collectivism, and individual level motivational factors and individual characteristics. In this paper we limit our focus on factors concerning organizational context and cultural characteristics. In addition, we also examine the relationship between technology and knowledge sharing. Figure 1 presents the conceptual model of the research and the associated hypotheses are discussed below.

Top management involvement

The management of key account relationships across geographical borders brings along many challenges. In international key account management the information needs are high and information must be gathered across geographical borders, across a great variety of different channels and from culturally diverse group members (Harvey et al., 2003). Moreover, as geographically dispersed key account teams are many times implemented alongside previously existing local sales organizations, the fear of losing decision-making authority at the local markets may increase the resistance to share customer-specific knowledge, which may be seen as a so called "who owns the customer -syndrome" (Arnold et al. 2001). Under such circumstances

top management has a profoundly important role to play in shaping the values and behavioral activities in organizations (Deshpande et al., 1993; Kohli and Jaworski, 1990). Previous research on key account management has widely discussed the importance of top management involvement (e.g., McDonald et al., 2003; Napolitano, 1997; Workman et al., 2003). For example, Napolitano (1997, 5) claimed that “*top management involvement is the most important indicator of success*” in KAM. In addition, knowledge management stream of research acknowledges the crucial role of top managers: Gupta et al. (2000), for example, state that top management support is essential in the development of a truly knowledge-sharing and learning-oriented culture. If top-level managers show an eagerness to share knowledge they might find others in the organization to follow their lead (Goh, 2002). In market orientation stream of research, Jaworski and Kohli (1993) found that top management involvement is positively related to the generation and dissemination of, and responsiveness to market knowledge. With the support of previous studies, it is argued that top management involvement has an impact on intra-organizational customer knowledge sharing, and the following hypothesis is posited:

H1: Top management involvement is positively related to customer knowledge sharing

Use of sales teams

Sales teams are an important component of international key account management. Deeter-Schmelz and Ramsey (1995, 49) define a sales team as: “*A small, permanent team responsible for customer relationships, sales strategy, and sales transactions and comprised of selling organization members who possess complementary skills, who are committed to a common purpose, performance goals, and a selling approach for which they hold themselves mutually accountable*”. Sales teams have thus an intraorganizational coordinating function with the requirements of functional departments, the overall goals of the own organization (Deeter-Schmelz and Ramsey, 1995), and an interorganizational coordinating function with meeting the expectations of the key account. International key account teams are typically cross-functional, cross-cultural and geographically dispersed. They are thus more heterogeneous than traditional sales teams.

Sales team can be used to coordinated customer knowledge flows in sales organizations (e.g. Goh, 2002; Joshi and Sharma, 2004; Katzenbach and Smith, 2005; Shi et al., 2004). By providing a forum for discussing customer-specific matters (Nätti et al., 2006) the team facilitates knowledge sharing among the team members (Geiger and Turley, 2005) and integration of customer knowledge (Katzenbach and Smith, 2005). In addition, a membership in a sales team provides better possibilities to share experiences, argue, challenge and create new knowledge and learn from others (Sapsed et al., 2002). The team thereby enables a forum for sharing customer-related success stories and misfortunes and thus, represents a collective base of knowledge for managing the customer relationship in a manner that is difficult for competitors to imitate (Harvey et al., 2003). Thus, we posit the following hypothesis:

H2: Use of sales teams is positively related to customer knowledge sharing

Customer relationship-based rewards

Ultimately, knowledge sharing is up to the people and their willingness to share knowledge with each others. It is important to find ways to motivate people to share knowledge because incompatibility between compensation systems and customer relationship-based strategies is

often addressed as a reason for unsatisfactory results of CRM investments (e.g. Reinartz et al., 2004). Therefore, one possibility to motivate internal customer knowledge sharing is to build up a compensation system that is compatible with the strategic objectives of key account management program. Instead of territory or pure volume-based incentives employees involved in the management of international key account relationship should be rewarded based on achievement of customer-specific targets. This way enhancing and maintaining the key account relationship becomes a shared responsibility regardless of geographical borders. As for example Cravens et al. (1993) discovered that behavior-based rewards addressing subjective performance measures such as customer satisfaction have a positive effect on salespeople's willingness to share knowledge, we posit the following hypothesis:

H3: Use of relationship-based rewards is positively related to customer knowledge sharing

KAM team Esprit de corps

The success of knowledge management - and knowledge sharing as part of that process - is strongly affected by organizational culture. The visible aspects of the organization, like the mission and explicitly stated values, reflect the culture, but culture is also embedded in the way people act, what are their expectations towards their fellow employees and how they make sense of each others actions. (McDermott and O'Dell, 2001). Esprit de corps is an organizational culture-related construct with an employee perspective: it reflects the degree to which employees are committed to common goals and to each other (Workman et al., 2003). These values of employees are deeply rooted in the organizational culture, which according to previous studies may affect knowledge sharing in organizations. This knowledge-sharing tendency is likely to occur in organizations that are characterized by co-operative and collaborative cultures and collaborative methods of working. (Nahapiet and Ghoshal, 1998; Nätti et al., 2006) Conversely, a lack of esprit de corps among employees may inhibit them from sharing customer-related knowledge with each other (Workman et al., 2003). Based on the above discussion, the following hypothesis is proposed:

H4: KAM team esprit de corps is positively related to customer knowledge sharing

CRM technology

During recent years, the increasing rate of CRM system implementations has been widely reported by both CRM software vendors and academics. In general CRM systems refer to methodologies, software and internet capabilities that help firms to manage customer relationships in an organized manner (Xu et al., 2002). Operational level CRM systems such as sales force automation (SFA) tools enable an immediate storing of customer knowledge in each service encounter with the customer while analytical tools facilitate for example integrating, interpreting and distributing customer knowledge (Buttle 2009, 7-9). Therefore, it appears that CRM systems facilitate the management of customer information in customer interactions (King and Burgess, 2008; Parvatiyar and Sheth, 2001) and also internally by enabling the storing of large quantities of customer information, and providing tools for analyzing and sharing the information (e.g. Mithas et al., 2005). Moreover, CRM systems also bundle up different units and functions in organizations because the systems are integrative in nature (e.g. Chen and Popovich, 2003; Xu et al., 2002). However, despite the increasing interest in CRM systems and consequences of CRM system implementations, the relationship between CRM systems and internal customer knowledge sharing has received only a little academic attention in the

marketing literature. It can be assumed that because a CRM system provide the platform for storing and integrating customer data in single location (Payne 2006, 231) it also facilitates customer knowledge sharing by making customer knowledge easier to access in different parts of the organizations. Since in international context firms interact with the customer through an increasing diversity of channels across multiple markets and functions, such integrating mechanism become of fundamental importance for being able to replicate the ‘mind of the customer’ across the organization (Payne 2006, 231). Thus, we posit the following hypothesis:

H5a: CRM technology is positively related to customer knowledge sharing in the management of international key accounts

Sales people are known to be busy. They may not find the time to share customer knowledge across the organization because they need to concentrate on the actual selling tasks. This time-consuming complexity of knowledge sharing is evident in the management of international key accounts. International key accounts are served by several sales people in multiple countries and therefore face-to-face contacts between the KAM team members may be limited. This means that although sales people would understand the importance of internal customer knowledge sharing and feel committed to common goals, they may find it too complicated and time-consuming to share knowledge actively with each others unless an appropriate technology facilitating the process is in place. Although the role of CRM systems in international key account management has not been addressed in prior studies, the importance of various IT systems (e.g. intranets) enabling more effective knowledge sharing has been widely acknowledged in the literature (e.g. Hendriks, 1999). Thus, it can be assumed that especially in the context of international key account management CRM technology has a major role in enabling more efficient customer knowledge sharing between employees and removing the knowledge sharing barriers such as physical distance. Thus, we believe that in addition to its direct main effect on customer knowledge sharing, CRM technology has also a positive moderating effect on the relationship between employee esprit de corps and customer knowledge sharing. Thus:

H5b: CRM technology has a positive moderating effect on the relationship between esprit de corps and customer knowledge sharing

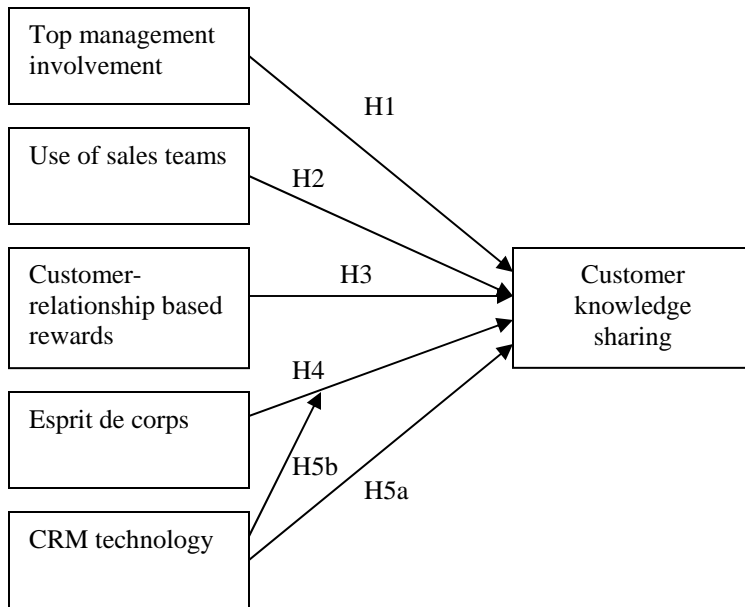


Figure 1. Conceptual model and research hypotheses

RESEARCH DESIGN

The research hypotheses were tested with a survey data collected in 2007 by means of a structured print questionnaire. The sample drawn from Amadeus database consisted of Finnish industrial firms that employ a minimum 200 persons. Initially 361 firms were identified, and when contacted by phone, 171 firms were found eligible to be included in the study. The eligibility of the respondent was determined by the following two criteria: firstly the firm had to have business-to-business sales coordinated from Finland, and secondly, the firm needed to have identified its strategically most important key customers. To elicit cooperation, higher level managers were contacted first: they were asked to recommend one to three knowledgeable respondents (key account managers or persons in corresponding positions) responsible for the management of different key account customers. The respondents were asked to respond from the perspective of their most important key account relationship in terms of annual sales volume. Individual key accounts were chosen as the unit of analysis, because pre-interviews with sales managers indicated that intra-organizational processes for managing key account customers may differ significantly between the various key accounts.

Of the eligible 171 firms, 13 firms refused to take part in the study. A total of 395 questionnaires including a pre-paid return envelope and a cover letter were sent to 158 firms that agreed to take part in the study. 169 questionnaires were received from 97 firms out of the 395 posted, resulting in satisfactory response rates of 56,7 % (97/171) on the company level, and 42,8 % (169/395) in terms of the sent and received questionnaires. The hypothesis testing of this research is based on a total of 112 responses from respondents that have international key accounts. The non-response bias was checked following the procedure suggested by Armstrong and Overton (1977),

comparing several variables between the early and late respondents. The comparisons indicated no signs of non-response bias. As key informant technique was used in the data collection, Harman's one factor test (Podsakoff and Organ, 1986) was used to check for a common method bias. The first factor accounted for only 21 per cent of variance and no common factor underlying the data was found.

Measures

All constructs except the use of teams were measured with a seven-point Likert scale from 'strongly disagree' to 'strongly agree'. The use of teams was measured with a yes/no dummy variable. To obtain the composite measures for the regression analysis, a principal component analysis with varimax rotation was used. Firstly, *customer knowledge sharing* was measured with seven items adapted from the market orientation scales by Jaworski and Kohli (1993) and Cadogan et al. (1999) and relational information processes scale developed by Jayachandran et al. (2005). The items dealt with issues such as the degree to which people involved in the management of the key account relationship discuss key account-related matters with each others and the degree to which customer knowledge is disseminated across the organization from one unit to another (see list of scale items and reliability estimates in Appendix I). The reliability coefficient of the scale was 0.86, which according to Nunnally indicates good reliability. *Top management involvement* was measured with four items adapted from Workman et al. (2003). These items assessed the degree to which top management takes part in the management of key account relationship. Cronbach's alpha for this scale was 0.74. As previously validated scales measuring the use of *customer relationship-based rewards* were not found, a new scale was developed and items generated based on previous literature. This exploratory construct was measured with five items that assessed the degree to which incentives used to motivate salespersonnel involved in the management of the key account relationship were linked to customer-relationship-based factors such as customer satisfaction and customer profitability. Cronbach's alpha for the scale was 0.66, which according to Hair et al. (1998, p. 118) can be regarded acceptable for exploratory and novel concepts. *Esprit de corps* was measured with four items taken from Workman et al. (2003). This construct measured the extent to which people involved in the key account management 'pulled together', that is, were committed to common goals and to each others. Cronbach's alpha for the scale was 0.74. *CRM technology* was measured with three items assessing the extent to which the respondent has an appropriate CRM technology in place. The items were adapted from Reinartz et al. (2004) and one item was developed based on pre-interviews with sales managers prior to the actual data collection. Cronbach's alpha for the CRM technology construct was 0.80. Finally, the effect of customer's demand for consistent service and terms of trade was controlled in the analysis. This construct was measured with two items and Cronbach's alpha for the construct was 0.70.

Results

The focus of the present study was limited to examining the determinants of customer knowledge sharing in the context of international key account management. Therefore only respondents answering from the perspective of international and global account were included in the analysis. Altogether 112 cases were used to test the hypotheses by means of a hierarchical linear

regression analysis. The variables were entered into the regression model in three blocks. Customer's demand for consistent service and terms of trade as a control variable was entered in the first block, the hypothesized independent variables in the second block and the hypothesized interaction term in the third block. Multicollinearity was evaluated base on the variable inflation factor (VIF) scores. In order to avoid multicollinearity we calculated the interaction term based on standardized values. All the VIF values in the model were well below the cut-off value 10 suggested by Hair et al. (1998). Moreover, as also skewness and curtosis statistics were well within the boundaries of normality, no violations against regression analysis were found. Table I shows the correlations between all the constructs and the results of hierarchical regression analysis are presented in Table II.

Table I. Correlations

Variable	Mean (SD)	1	2	3	4	5	6	7
1. Customer knowledge sharing	4.64 (1.10)	1.000						
2. Demand	4.98 (1.53)	.218	1.000					
3. Top management involvement	4.66 (1.22)	.164	.208	1.000				
7. Use of sales teams	.52 (.50)	.276	.094	.094	1.000			
6. Customer-relationship-based rewards	3.30 (1.13)	.285	.199	.242	.244	1.000		
4. Esprit de corps	4.86 (.89)	.443	.155	.299	.181	.178	1.000	
5. CRM technology	3.87 (1.65)	.428	-.033	.143	.099	.235	.133	1.000

Table II. Results of hierarchical regression

Dependent variable: customer knowledge sharing

Variable	Model 1 Standardized Coefficients	Model 2 Standardized Coefficients	Model 3 Standardized Coefficients
Demand	.218**	.157**	.143**
Top management involvement		-.059	-.034
Use of sales teams		.147**	.140**
Customer-relationship-based rewards		.086	.091
Esprit de corps		.346***	.391***
CRM technology		.361***	.369***
CRM technology X Esprit de corps			.142**
R2	.047*	.398***	.414***
Adjusted R2	.039	.363***	.375***
Change in R2		.350***	.017*

*p<0.1, **p<0.05, ***p<0.001 (n=112)

The results of the regression analysis show firstly that the control variable, customer's demand for consistent service and terms of trade, has a statistically significant positive effect at a five per cent level on customer knowledge sharing in supplier organization. This relationship remains statistically significant in all three models. Opposed to our expectations top management involvement has a negative sign and thus, H1 was not supported. Use of sales teams was found significant at five per-cent level, thus supporting H2. There was no statistically significant positive relationship between customer relationship-based rewards and customer knowledge sharing, thus failing to provide support for H3. On the other hand Esprit de corps and CRM technology as determinants of customer knowledge sharing were strongly supported, thus supporting hypotheses H4 and H5. Based on the value of the coefficients, these two constructs were also the strongest indicators of customer knowledge sharing. Finally, the hypothesized interaction term added in the third block was also found statistically significant at five per-cent level. It is however noted that the change in R2 between the second model and third model was statistically significant only at a 10 per cent level. We assume that this weak significance may be related to the relatively small size of the sample.

The interaction between CRM technology and KAM team Esprit de corps is depicted in figure 1. As shown in the figure, when investment in CRM technology scores high, the effect of esprit de corps on customer knowledge sharing is stronger. Vice versa, when investment in CRM technology scores low, KAM team esprit de corps has a weaker effect on customer knowledge sharing.

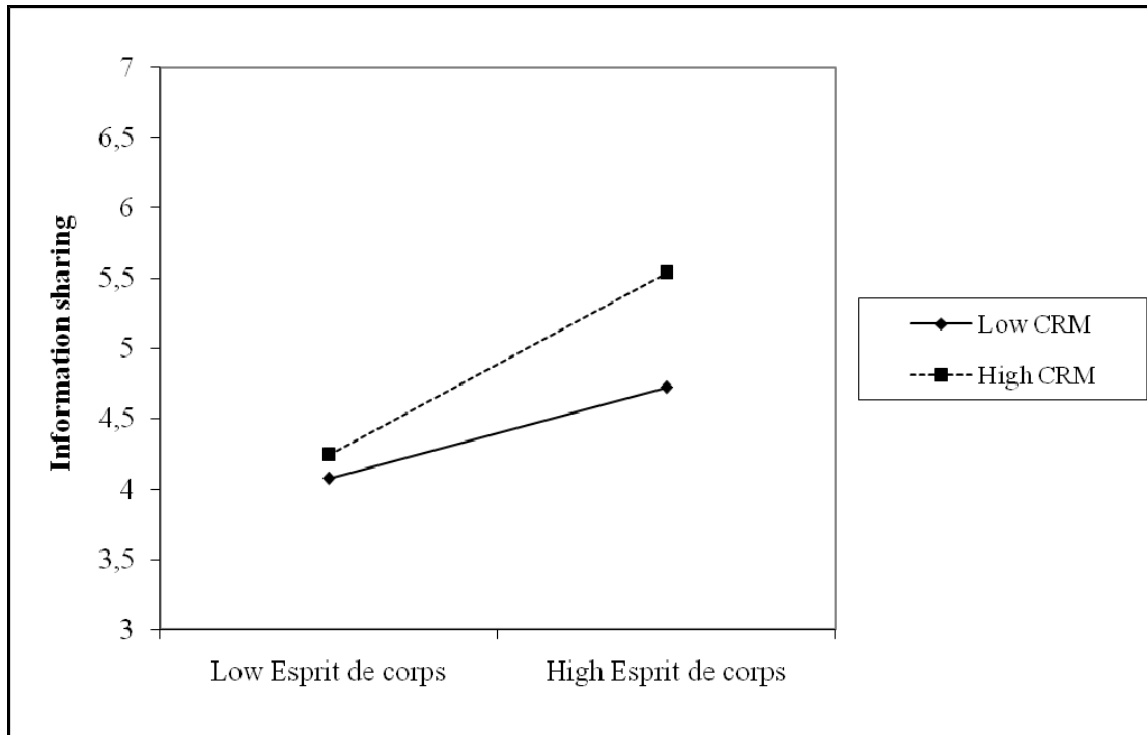


Figure 2. Interaction between CRM technology and KAM team Esprit de corps

CONCLUSIONS

While knowledge sharing in general has been widely studied from many different perspectives, current literature still lacks empirical research that would focus on the features and determinants of customer-specific knowledge sharing inside supplier organizations. In this paper we have tried to answer to this gap in research and contribute to prior key account management research by increasing knowledge on the intra-organizational determinants of customer-specific knowledge sharing within the context of international key account management. As a result, this study has identified a number of intra-organizational factors that support internal customer knowledge sharing in industrial key account organizations.

Firstly, our findings show that customer's demand for consistent service and terms of trade has a positive influence on supplier's customer knowledge sharing behaviors. This finding is in line with prior studies suggesting that in general firms implement global account management programs as a response to customers' increasing rationalization of the supplier base and willingness to operate in a coordinated manner with their key suppliers (e.g., Montgomery and Yip, 1999; Sheth and Sharma, 2008; Yip and Madsen, 1996). Thus, when customers demand for consistent service, suppliers respond by increasing internal coordination.

Somewhat surprisingly, our results show that top management involvement is not related to customer knowledge sharing. It appears therefore, that when employees are provided more freedom to make customer-related decisions and 'manage' the customer relationship, customer knowledge flows more freely in the organization.

In accordance to previous studies (e.g. Arnett et al., 2005; Nätti et al., 2006) our results show that the use of sales team is positively related to customer knowledge sharing. Moreover, according to our results the strongest determinant of customer knowledge sharing in our model is the employee esprit de corps among employees and thus employees' commitment to each others and common goals. As such, this finding is in line with previous studies that identify cultural norms and values as predictors of knowledge sharing (e.g., Nahapiet and Ghoshal, 1998; Nätti et al., 2006). Together these findings imply that although teams are important in the management of international key accounts, even more important is the employees' willingness to 'pull together' and commit themselves to common goals.

Surprisingly, the findings give no support for the relationship between customer relationship-based rewards and customer knowledge sharing. It may be that the link between customer knowledge sharing activities and achieving customer relationship-specific targets, such as customer satisfaction, is too weak. On the other hand our construct measuring customer-relationship-based rewards does not take into account whether the rewards are paid equally to all the people involved in the management of the key account relationship. Thus, unless the rewards are not paid on a team-level, salesperson may devote a lot of time and resources to enhance the customer relationship independently, without bothering to share knowledge with others. This requires attention in future studies.

In line with previous studies (e.g. Mithas et al. 2005) our results show that the availability of CRM technology has a positive effect on customer knowledge sharing. Interestingly, the findings also show that CRM technology has a positive moderating effect on the relationship between esprit de corps and customer knowledge sharing. In other words, it appears that in the context of international key account management CRM technology has a major facilitating role. Sales personnel have to continuously struggle with how to allocate their time with time-consuming knowledge sharing activities and actual selling tasks for which they typically get rewarded. Thus, although the employees would be committed to each others and common goals, they still may not be as active in sharing customer knowledge as they would be if there was an appropriate technology in place to facilitate the process.

Limitations and suggestions for future research

While this study offers a number of new insights into the intra-organizational aspects of key account management within an international context, there are a few limitations that should be addressed in future research. Firstly, as customer knowledge management is a relatively new concept and still under studied in the context of key account management, there is no solid theoretical basis on which to posit hypotheses. This lack of a solid theoretical basis, together with the nature of cross-sectional data, implies that causal relationships between the variables should be interpreted with caution. Secondly, the sample size in the study was relatively small (112 cases) and represents firms listed in a single country. Therefore, bigger samples should be used in the future in order to improve the statistical power of the analysis. Finally, the key-informant technique was used in collecting the data, and this may have been a limitation. Huber and Power (1985) argue that having an appropriate and knowledgeable person as a respondent improves the accuracy of the data, but it would nevertheless be of value to validate the findings by using multiple respondents.

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APPENDIX I

Scale items and reliability estimates

	Loadings
Customer knowledge sharing (Cronbach's alpha=0.86)	
Knowledge concerning the key account satisfaction is disseminated at all levels in our business unit on a regular basis	0.701
We have functional mechanisms for integrating key account knowledge from various communication channels (for example, e-mail, telephone, internet, fax, personal meetings)	0.688
When something important happens to the key account, the whole business unit knows about it in a short period of time	0.760
When other units in our organization learn something important about the key account, that knowledge is quickly transferred to our unit	0.696
Knowledge which can influence the way we serve the key account, takes forever to reach the key account manager (R)	0.696
We are not used to documenting in writing key account-related knowledge learned in practice	0.648
We integrate key account-related knowledge from different units in our organization	0.670
Customer relationship-based rewarding (Cronbach's alpha=0.66)	
Reward systems encourage employees to focus on increasing key account satisfaction	0.745
People get recognized for being sensitive to key account customers' moves	0.661
Formal rewards (i.e. pay rises, promotions) are forthcoming to anyone who consistently provides good key account customer intelligence	0.659
Key account managers' salaries are not dependent on the state of key account relationships	0.658
Key account managers' performance is evaluated based on key account profitability	0.528
Top management involvement Cronbach's alpha=0.74)	
Top management often deals with the management of the key account relationship	0.848
Our top management have close relations with the key account's top management	0.790
Our top management encourages employees to pay special attention to the key account relationship	0.669
The key account manager is often left alone when key-account related decisions need to be done (R)	0.605
Esprit de corps (Cronbach's alpha=0.74)	
The people involved in the management of the key account relationship..	
Have a team spirit that pervades all ranks involved	0.918
Feel like they are part of a big family	0.781
Are genuinely concerned about the needs and problems of each other	0.732
View themselves as independent individuals who have to tolerate each others around them (R)	0.572
CRM technology (Cronbach's alpha=0.80)	
We have invested in technology to acquire and manage 'real time' customer-related information	0.863
We have a dedicated CRM technology in place for analyzing customer information	0.858
Our CRM technology does not meet our needs (R)	0.763