

**Intra-organizational determinants of  
customer knowledge acquisition in key account management**

*Hanna Salojärvi\*, Lappeenranta University of Technology, School of Business,  
hanna.salojarvi@lut.fi*

**Abstract**

The aim in this study is to identify intra-organizational factors that enhance a supplier's acquisition of customer-related knowledge in the management of complex key account relationships. The hypotheses are empirically tested with a survey of 168 respondents representing large industrial firms in Finland. The results of hierarchical regression analysis show that KAM team esprit de corps and investment in CRM software are positively related to knowledge acquisition, whereas there is no significant relationship between the level of acquisition and top management involvement, the use of sales teams, or KAM formalization.

Keywords: Customer knowledge, key account management

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### **Introduction**

The subject of customer knowledge has attracted increasing interest in recent decades. In addition to generating knowledge about aggregate markets, customer-specific knowledge is useful in terms of meeting customers' growing demands for tailored solutions (Campbell, 2003; Helfert, Ritter and Walter, 2002) and in developing long-term relationships with them (Jayachandran et al., 2005; Parvatiyar and Sheth, 2001). The management of customer knowledge is further emphasized in the business-to-business context: multiple contact points between the supplier and the key account (Birkinshaw, Toulan and Arnold, 2001) and the extensive scope and strategic nature of key account relationships increase the need for systematic intra-organizational knowledge processes in supplier firms (e.g., Arnold, Belz and Senn, 2001; Birkinshaw, Toulan and Arnold, 2001). However, customer knowledge is one of the most complex types of knowledge to manage: it is acquired through multiple channels, it may have a contextual meaning, it is dynamic, and it changes rapidly (Davenport and Klahr, 1998). Moreover, it is often tacit, thus making it difficult to codify (Day, 2000).

Academic research on the intra-organizational processing of customer-specific knowledge is mainly conceptual in nature and lacks empirical quantitative research, especially in the context of key account management (KAM) (Workman, Homburg and Jensen, 2003). To date previous research on KAM has focused on examining the characteristics and abilities of individual key account managers (e.g. Harvey, Myers and Novisevic, 2004; Millman, 1996; Sen Gupta, Krapfel and Pusateri, 2000; Wilson and Millman, 2003; Wotruba and Castleberry, 1993), the nature of dyadic relationships between the supplier and the key account customers (e.g. evolutionary path of key account relationship by Millman and Wilson, (1995)) and the design of key account management programs on organizational level (e.g. Homburg, Workman and Jensen, 2002; Kempeners and van den Hart, 1999; Wengler, Ehret and Saab, 2006; Workman, Homburg and Jensen, 2003). Despite the substantial body of previous KAM research, only a few researchers have made empirical analysis of antecedents and consequences of intra-organizational processes and behaviours characteristic for key account management. In order to meet this research gap, the aim of the present study is to examine what organizational factors promote the supplier's acquisition of customer knowledge in the context of key account management.

### **Background and hypotheses**

The acquisition of customer knowledge is regarded in this study as fundamental to the process of knowledge generation by determining the type, sources, and intensity of knowledge acquisition. It is an important phase in the knowledge-generation process in that it creates a basis for learning about customer-specific needs, which in turn results in improved customer service, satisfaction, and retention (García-Murillo and Annabi, 2002). The theoretical background of the concept lies in the areas of market orientation and knowledge management (see Darroch, 2003; Kohli and Jaworski, 1990), except that the objects of the knowledge processing are individual key account customers rather than aggregate markets. Customer knowledge is acquired by the focal firm either indirectly through various interest groups, such

as consultants and market-research agencies, or directly from the customer, for example through face-to-face interaction, telephone conversations or websites (Day, 2000). According to García-Murillo and Annabi (2002), knowledge acquired directly from the customer in interaction is often richer in content than knowledge gained through transactions in that it opens up the possibility of gaining knowledge about what it is that the customer knows. Moreover, the knowledge gained constitutes the relationship-specific tacit knowledge that is needed in dealing with the customer in the future (Ballantyne, 2004).

In order to be able to create added value for the key account, and thus to increase the switching costs of the account, suppliers should be proactive in their customer-knowledge-acquisition practices. A major challenge during this phase, however, is to get the employees to “*tap the knowledge pool of the customer*” (García-Murillo and Annabi, 2002). Knowledge acquisition is often time-consuming and expensive (Slater and Narver, 2000), and people working at the customer frontline must continuously allocate their time between acquisition practices and selling activities (Darmon, 2002). Furthermore, the number of channels enabling interaction with customers is constantly increasing (Payne and Frow, 2005). The key question, therefore, concerns how the organization can support the acquisition of customer knowledge efficiently. In this study the examination is limited to the following factors: top-management involvement, the use of sales teams, KAM team esprit de corps, the formalization of KAM, and investment in CRM software. These factors are briefly and separately discussed in the following, and the respective hypotheses are justified.

The importance of top management in the management of collaborative key account relationships has been discussed by various authors (e.g., McDonald, Rogers and Woodburn, 2003; Napolitano 1997; Workman, Homburg and Jensen, 2003). Top management shapes the values of the organization and therefore guides its behavior in a certain direction. Jaworski and Kohli (1993) found that top management support was positively related to market-intelligence generation, dissemination and responsiveness. In a similar vein, top management involvement is likely to affect the acquisition of customer knowledge in collaborative key account relationships because top managers communicate the special status of key accounts to the employees and push the organization into acquiring customer-specific knowledge more actively. Thus:

*H1: Top management involvement is positively related to customer-knowledge acquisition*

The management of extensive key account relationships requires cross-functional cooperation across the supplier organization (Kothandaraman and Wilson, 2000; McDonald, Millman and Rogers 1997; Workman, Homburg and Jensen, 2003). In practice this often means the establishment of specific sales teams that help in clarifying the roles and responsibilities of employees in the management of the key account relationships. Teams have also been found to increase organization-wide knowledge development (e.g., Joshi and Sharma, 2004; Katzenbach and Smith, 2005, Nätti, Halinen and Hanttu, 2006), and the feeling of togetherness among employees (Geiger and Turley, 2005). However, Workman, Homburg and Jensen (2003, 10) found that the use of teams in itself was not a guarantee of successful KAM, and that esprit de corps, which they define as “*the extent to which people involved in the management of key accounts feel obligated to common goals and to each other*” was more important. Although these authors did not examine the effect of esprit de corps on knowledge processing activities, it is assumed here that both the use of teams and esprit de corps are likely to have a positive effect on customer knowledge acquisition in that they support values that are related to the development of key account focused organizations. Thus:

*H2: The use of teams is positively related to customer knowledge acquisition*

*H3: KAM team esprit de corps is positively related to customer knowledge acquisition*

It is also assumed in this study that the structure of the organization - namely its formalization - is likely to affect the level of a supplier's customer knowledge acquisition. Workman, Homburg and Jensen (2003) define KAM formalization as “*the extent to which the treatment of the most important customers is governed by formal rules and standard procedures*”. Formalization communicates the special status of key accounts to the employees and is therefore likely to increase the level of key account-related knowledge acquisition. Thus:

*H4: The formalization of key account management is positively related to customer knowledge acquisition*

Finally, in terms of organizational systems, CRM software has been found to improve customer-knowledge generation as the technology enables the more efficient collection of data from multiple sources and affords opportunities for interacting with customers more frequently (Jayachandran, Hewett and Kaufman, 2004; Mithas, Krishnan and Fornell, 2005). The subsequent building up of a store of customer-specific knowledge also helps in determining the prior knowledge that will facilitate the acquisition of new knowledge (see Cohen and Levinthal, 1990). Thus:

*H5: Investment in CRM software is positively related to customer knowledge acquisition*

## **Methodology**

A structured questionnaire was used to collect the data. Finnish industrial firms with over 200 employees were defined as the population of interest. Within these limits, a total of 361 firms were identified from the Amadeus database. Of these, 171 were considered eligible when first contacted by telephone. The eligibility was determined based on two criteria. Firstly, it was ascertained that the firm has business-to-business sales coordinated from Finland, and secondly, that it had defined its strategically most important customers. 13 firms refused to participate in the study. A key-informant technique was used in the data collection. The respondents were mainly key account managers or persons in a corresponding position. They were asked to respond with regard to the most important key account customer in terms of annual sales volume. A total of 395 questionnaires were mailed to the 158 firms that agreed to take part in the study. We received 169 responses from 97 firms, meaning an effective response rate of 56.7 percent (97/171) on the company level, and 42.8 percent (169/395) in terms of the total number of questionnaires sent out and returned. We checked for non-response bias by comparing the early and late responses according to the recommendations given by Armstrong and Overton (1977), and for common method variance by conducting Harman's one-factor test (Podsakoff and Organ, 1986). Neither non-response bias nor common method variance seemed to be a problem.

## **Measures**

A seven-point Likert scale ranging from “strongly disagree to strongly agree” was used to measure all the constructs except the use of teams, for which we used the categorical dummy-

variable yes/no. Principal component analysis with Varimax rotation was used to create composite measures for the constructs. The items for each construct were adapted from previous studies as follows: customer knowledge acquisition (Jayachandran et al., 2005; Kohli, Jaworski and Kumar, 1993), top management involvement (Jayachandran et al. 2005; Workman, Homburg and Jensen, 2003), KAM team esprit de corps and KAM formalization (Workman, Homburg and Jensen, 2003), and CRM investment (Reinartz, Krafft and Hoyer, 2004). We also developed some new items based on previous literature and pre-test interviews with sales managers. The reliability of each scale was found to be satisfactory as the Cronbach's alphas for each construct were above 0.70 (Nunnally, 1978).

### **Control variables**

Naturally, the level of the supplier's customer knowledge acquisition may be affected by external factors such as the dynamism and geographical scope of the key account (national or international) in addition to the intra-organizational factors. The effect of key account dynamism and geographical scope of the account were therefore controlled for in the study. The dynamism of the key account was measured with six items assessing rapidness of technological change in the key account's industry, four items assessing unpredictability of key account's preferences and four items assessing competitive intensity in the key account's industry. Cronbach's alpha for the summated scale reflecting dynamism of the key account was 0.87. Geographical scope of the key account was measured with a dichotomous dummy variable with a value of 0 when national key account and value of 1 when international.

### **Results**

The hypotheses were tested by means of hierarchical linear regression analysis. Only the control variables (dynamism and scope of the key account) were entered into the model in the first step. The independent variables, namely top management involvement, the use of teams, KAM team esprit de corps, KAM formalization, and CRM investment were entered in the second phase in order to reveal the added variance explained by them. Estimation of the variance inflation factors (VIF) indicated that multicollinearity was not a problem. Furthermore, a normal probability plot of the regression-standardized residuals and a scatterplot confirmed that there were no deviations from normality, and thus no violations of the regression analysis. Table 1 summarizes the results of the hierarchical regression analysis (the means, standard deviations and correlation coefficients are not included due to limitations regarding the length of the paper).

Model 1 turned out not to be statistically significant, and neither of the control variables - key account dynamism and type of customer - were significantly related to the level of the supplier's customer knowledge acquisition. The explanatory power was increased significantly ( $p < 0.001$ ) when the hypothesized independent variables were added to the regression (change in  $R^2 = 0.231$ ,  $p < 0.001$ ). H1 posited that top management involvement would be positively related to customer knowledge acquisition. However, this was not supported. H2 posited that the use of teams would be positively related, and although the coefficient was positive it was not statistically significant, thus the hypothesis was rejected. A highly positive relationship on the one-percent level was found between KAM team esprit de corps and customer knowledge acquisition, thus supporting H3. H4 stated that KAM formalization would be positively related to customer knowledge acquisition, and this was

rejected. Finally, a positive relationship on the five-percent level was found between CRM software investment and customer knowledge acquisition, thus supporting H5.

Table 1. The results of the hierarchical regression analysis

Dependent variable: customer knowledge acquisition

Variable	Model 1 Standardized Coefficients	Model 2 Standardized Coefficients
ka_dynamism	0.063	-0.016
ka_type	0.112	0.115
H1 Top involvement		0.032
H2 Use of teams		0.120
H3 Esprit de corps		0.316***
H4 Formalization		0.036
H5 CRM_investment		0.200**
R <sup>2</sup>	0.018	0.231
Adjusted R <sup>2</sup>	0.006	0.197
Change in R <sup>2</sup>		0.213***

\*p<0.10, \*\*p<0.05, \*\*\*p>0.01 (n=168)

### Discussion and conclusions

The results indicate that KAM team esprit de corps and CRM software investment are positively related to customer knowledge acquisition in collaborative key account relationships. Previous research has reported contradictory results regarding the success of CRM implementation (e.g., Jayachandran et al. 2005; Mithas, Krishnall and Foyer, 2005; Reinartz, Krafft and Hoyer, 2004; Rigby, Reicheld and Shefter, 2001). Our findings suggest that CRM software implementation is likely to improve customer knowledge acquisition through the pooling of knowledge from multiple sources and through facilitating the storage of large amounts of customer-specific knowledge for further use. We argue, therefore, that CRM software should be considered a necessary but insufficient tool in the management of customer relationships.

From the marketing-management perspective our findings also indicate that more emphasis should be placed on improving the esprit de corps among employees, in terms of appropriate incentives and training for example, as it appears to have a stronger impact on customer knowledge acquisition than the use of teams. This finding is in accordance with the results of a previous study conducted by Workman, Homburg and Jensen (2003), who discovered that it was not the team use itself that had an impact on KAM effectiveness, but rather the KAM team esprit de corps among employees. Surprisingly, top management involvement and KAM formalization turned out not to be positively related to customer knowledge acquisition. The importance of these factors may be more evident in later phases of the knowledge management process, in other words in the dissemination and utilization of knowledge.

There are some limitations connected with this study. Firstly, the decision to use single informants in the data collection always involves the risk of common method bias. This risk could be minimized in future studies through the use of multiple respondents. Secondly,

although our measure of customer knowledge acquisition captures the overall intensity, level and source of knowledge acquisition practices, it does not address what kind of customer knowledge (for example, tacit vs. codified, operative vs. strategic) is acquired. In this sense, more research is needed in order to examine the differences between the various practices. We also call for more research on the consequences of customer knowledge acquisition.

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