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User groups: a simple way to increase customer retention

Abstract

A user group is an independent, non-profit organization of customers of a particular vendor who meets on a regular basis to share information and experiences and may influence the vendor to change their products. User groups operate autonomously regarding to the technology manufacturer and are generally organized in the legal form of an association. Usually the customer orientation focuses on the use of a certain technology and, thus, the user group foundation is initiated by the members themselves. Although user groups already exist for more than 50 years on the information technology (IT) market, their relevance in times of global economic crisis is currently discussed in technical, as well as marketing newspapers. Whereas customers still consider user groups as an important independent information source for their purchase decisions, system providers question their relevance as effective marketing instrument. This study explores how user groups can increase customer retention. Six well-known German IT-system providers (IBM, SAP, Oracle, Fujitsu, Siemens and Telekom) and their system providers form the database to test the hypothesized effects. A positive direct effect of user groups on customer satisfaction has been proven. Customer retention can also be intensified by user groups via an indirect effect, generated over customer satisfaction. These findings lead to important implications for the management of IT-systems providers, that cooperate with user groups.

Keywords: user groups, customer retention, business-to-business marketing, system selling, transaction cost theory, structural equation modeling.

Introduction

A user group is defined as a customer association of a particular vendor, who meet on a regular basis to share information and experiences of a certain technology (Erichsson, 1994a; Erichsson, 1994b). User associations, founded and organized by the members themselves, have especially been established in the computer industry (Rothschild, 1988) in the system business. User groups may influence product enhancements and the strategic development of the vendor (Rothschild, 1988). The system business is typically characterized by a huge information deficit from the customer's perspective. Thus, technology decisions are generally made under high-risk conditions. Therefore, independent user groups are considered as a very important and credible source of information for customers of innovative technologies, as they provide manufacturer independent information (Bachhaus, 1999; Strothmann et al., 1987; Schneider, 2002).

User groups have also been proven extremely valuable for manufacturers. Manufacturers may integrate customer feedback into their product development (Erichsson and Jenner, 1997; Jenner, 2000). Moreover, they can profit from user groups by integrating them into their communication strategy (Kawasaki, 1991; Erichsson, 1994b).

The present study focuses on the system business that is dedicated to the sales of integrated and complex systems with services and software elements. Due to market changes, in particular the trend towards open interfaces, user groups can effectively be used as a customer retention instrument.

Systems with open interfaces are more and more preferred than propriety systems that lock the customers to one certain system (Kuhlen, 2004, pp. 164-165; Heinrich and Lehner, 2005, p. 572; Aschoff, 2005, p. 171). Whereas propriety systems force customer retention by the system itself, manufacturers of open systems now have to focus on voluntary customer retention. IT-companies may profit from increasing customer retention by building long-term relationships with user groups.

This paper provides implications on how to use independent user groups as an effective customer retention instrument. Thus, the result of this paper fills an existing research gap, since there is no empirical study available which explores the effects of user groups on customer retention.

The paper is organized as follows. Section 1 presents literature review on the user group topic. Then the conceptual framework and the development of the hypotheses are illustrated in Section 2. Afterwards the methodology for the survey and the procedure are presented in Section 3. Then the collected data is analyzed and the results are described and discussed in Section 4. This paper ends with limitations and future research recommendations in the last Section.

1. Literature review

There is apparently no research on user groups available. "There is plenty of research about online and virtual communities, but not about IT-related groups that get together at a physical location. This is an area that needs more research especially into ways to make them even more effective in promoting their IT education" (McMahon, 2007, p. 205).

There are only a few publications in two different disciplines existent: the computer science and economics. Especially in the computer science there are

a lot of user group articles focusing on user group foundations, success of product developments or user group board changes¹.

The thesis of Erichsson (1994a), entitled "User groups in the system business", is the most important scientific publication on the user group topic. On the basis of an empirical study the author characterizes the main structures and processes of independent user groups and derives recommendations for the management of user groups (Erichsson, 1994a; Erichsson and Jenner, 1996). She promotes the integration of user groups in the system marketing, as manufacturers can profit from user groups as a marketing instrument in terms of a communication channel. Moreover, user groups are also very valuable as a feedback instrument on existing and future products and services (Erichsson, 1994a).

Other authors also discuss user groups as a marketing tool. Whereas Backhaus (1999) considers user groups as communication instrument, Kawasaki (1991) focuses on management recommendations and the question of how to deal with user groups.

Jenner (2000) as well as Toms and Armstrong (1996), however, examine user groups as a customer integration method. With the help of user group members manufacturers are able to gather feedback, in order to develop and improve products and services during the whole product-life-cycle. In comparison to other instruments, Jenner (2000) shows that user groups are an effective tool to expand the product portfolio and to generate innovative ideas.

A frequently cited article from the users' perspective is the article of Rothschild (1988). The author stresses that the main objective in user groups is not only to exchange information and experiences, but also to represent the users' interests towards the manufacturer.

Concerning the addressed research problem in this paper Erichsson and Jenner (1996) note that user groups in high-tech industries may successfully be used as a customer retention instrument.

Although in literature it is mentioned that user groups influence customer retention, there is no empirical study on user groups available that determines how user groups affect customer retention. Therefore, this paper is intended to close the research gap by focusing on the following research questions:

1. Do user groups directly influence the customer retention to a manufacturer?
2. Is this effect influenced by a mediating variable?

¹ See Manson (1983); Knolmeyer (1997), Noack (2000); Computerwoche (2000); Roggio (2004); Computerwoche (2007), McMahon (2007). Further publications you will find in computer press related magazines, e.g. Computerworld or Computerwoche.

2. Conceptual framework and hypotheses development

In order to build up a theoretical framework first, it is necessary to take a closer look at the drivers of customer retention. Then the relations between user groups and customer retention have to be postulated.

2.1. Drivers of customer retention. The customer retention construct plays an important role in the marketing literature. This derives from the fact that one's existing customer base is known to be more profitable than acquiring new customers (Reichheld and Sasser, 1990; Peter, 2001, p. 47). Consequently, the link between consumer retention to sustainable financial performance is established in the literature (Fornell and Wernerfelt, 1987; Reichheld and Sasser, 1990). Therefore, companies put their efforts into building customer retention rather than finding new customers to ensure a high sales volume.

In the German literature a multidimensional conceptualization of customer retention has generally been accepted. The literature differentiates between two temporal dimensions, the present (or previous) and the future behavior. The present behavior results in real purchases. The future behavioral intentions can be covered by the intention of repurchase, cross selling or recommendation (Meyer and Oevermann, 1995, p. 1341; Hadwich, 2003, p. 46).

Managers should carefully consider the drivers of customer retention (Giering, 2000; Mittal and Kamakura, 2001; Olsen, 2002; Narayandas, 2005). To understand the complexity of customer retention, it is important to be aware of the main drivers of retention in the system business. We focus on two prominent drivers of retention in the marketing literature: customer satisfaction and switching costs.

2.1.1. Customer satisfaction. Customer satisfaction is defined as a customer's overall positive evaluation that occurs as a result of a customer's interactions with a company over time (Anderson, Fornell and Lehmann, 1994). Customer satisfaction research is mainly influenced by the disconfirmation paradigm (Parasuraman et al., 1988). This paradigm states that the customer's feeling of satisfaction is a result of a comparison process between perceived performance and a comparison standard, such as expectations. When the customer feels that the product's or system's performance meets or surpasses his previous expectations, he feels (highly) satisfied. If the product's or system's performance remains below expectations, the customer will be dissatisfied.

On the one hand, the feeling of satisfaction represents an affective state of mind, which is created through repeated product or service usage (Oliver, 1999). Compared with a more transaction-specific measurement of performance, on the other hand,

overall evaluations are more likely to influence the customer behavior that promote a firm, in terms of positive word of mouth and repurchases (Boulding et al., 1993).

According to the majority of research, we define a customer's satisfaction with a system seller as an affective state of mind resulting from the evaluation of all relevant aspects of the business relationship (Geyskens, Steenkamp and Kumar, 1999, p. 223). Traditionally, satisfaction has been used as construct to explain customer retention (Shi et al., 2009).

Despite such positive results in literature, the link between customer satisfaction and customer retention has also been questioned (Jones and Sasser, 1995). Thus, researchers have proposed a non-linear relationship between satisfaction and customer behavior (Anderson and Mittal, 2000; Bowman and Narayandas, 2001).

Other findings prove that customer satisfaction has a significant impact on customer retention (Bolton, 1998; Bolton, Kannan and Bramlett, 2000). The overall satisfaction is postulated to have a strong positive effect on customer retention intentions across a wide range of product and services categories, especially in the system business (Fornell, 1992; Fornell et al., 1996).

The underlying rationale is that customers aim to maximize the subjective value they obtain from interactions with a particular manufacturer (Oliver and Winer, 1987). This mainly depends on the customer's satisfaction level. As a consequence, customers, who are more satisfied, are more likely to remain customers. On the basis of these studies, this relation is also assumed in this context. Thus, the first hypothesis can be formulated as below:

H₁: Customer satisfaction has a positive effect on customer retention.

2.1.2. Switching costs. Switching costs can be defined as the costs involved in changing from one manufacturer to another (Heide and Weiss, 1995). According to Dick and Basu (1994), switching costs encompass both monetary expenses and non-monetary costs (e.g., time spent and psychological efforts that are invested in products, services or relationships). Whereas some authors prefer a wide definition of switching costs, including economic and psychological aspects, others concentrate only on the economic aspects of switching costs.

Within this contribution a narrow definition of switching costs is chosen because customer satisfaction is operationalized as a separate construct. Therefore, switching costs in this context are anticipated and direct costs of terminating an existing and building up a new relationship (Adler, 1996, p. 133). For example, a customer may make transaction-specific investments

in a relationship with a supplier and over time, the customer may have developed routines and procedures of dealing with the supplier (Heide and Weiss, 1995; Jap and Ganesan, 2000). Conceptually switching costs reflect a buyer's dependence on a vendor, which refers to the buyer's need to maintain the relationship with a supplier to achieve the desired goals (Frazier, 1983).

According to Dwyer, Schnurr and Oh (1987), as well as Heide and Weiss (1995), a customer will be motivated to stay in an existing relationship to economize on switching costs, such as the transaction-specific investments that the customer has made in the relationship. The establishment of a new relationship represents an investment of effort, time and money which constitutes a significant barrier to move to another service provider. Organizational buyers, therefore, are less likely to select new suppliers than current suppliers (Heide and Weiss, 1995).

High switching costs are a common strategy in the system business to increase customer retention (Dick and Basu, 1994). In the system business an initial investment in a specific technology often leads to a "lock-in-situation" for the customer, due to technological incompatibilities or high irreversible costs. Switching costs are basically defined as mechanisms that prevent customers from abandoning the business relationship (Jones, Mothersbaugh and Beatty, 2000, p. 261; Peter, 2001, p. 117). The higher the costs, the more customers tend to stay with the company. Thus, even dissatisfied customers may remain loyal due to high switching costs (Gronhaug and Gilly, 1991).

It is expected that, therefore, the existence of switching costs is accepted by organizational buyers unless the anticipated benefits exceed the costs (Ping, 1993, p. 326ff; Peter, 1997, p. 220f; Burnham, Frels and Mahajan, 2003, p. 120)¹. On the basis of the demonstrated arguments and evidence, we introduce the following hypothesis:

H₂: Switching costs have a positive effect on customer retention.

2.2. The effect of user groups on customer retention and its drivers. After presenting the relevant drivers of customer retention in this context, the effect of user groups is explained.

2.2.1. The impact of user groups on customer satisfaction. Industrial goods are technically complex. Consequently, system providers have to meet sophisticated requirements to support their customers with comprehensive know-how (Rudolph, 1998, p. 67). User groups offer their members product-related services

¹ Regarding economic switching costs see Peter (1997). For more information see also Hellier et al. (2003), Ganesan (1994). Lee, Lee and Feick (2001) confirm a positive indirect effect of economic switching costs on customer retention.

concerning the core products of the system provider (Jenner and Erichsson, 2000, p. 369). User groups keep their members up to date with relevant information, user experiences, current trends or support in daily work. In cooperation with other members and the system provider, user group members have the opportunity to solve or prevent problems (Erichsson, 1994a, p. 72). These additional product-related services, provided by user groups, may increase satisfaction with the system provider.

Moreover, studies from related fields¹ indicate a positive effect of membership services on customer satisfaction (Helm and Ludl, 2005; Glusac, 2005; Müller, 2006; Hoffmann, 2007). Thus, the corresponding hypothesis for user groups can be formulated as follows:

H₃: A user group has a positive effect on customer satisfaction with the system provider.

2.2.2. The impact of user groups on switching costs. A user group membership may increase switching costs² (Gainer, 1995, p. 256; Schögle, Tomczak and Wentzel, 2005, p. 3). If a user group member terminates the relationship to the system provider, his organization also has to dissolve the user group membership because the membership benefits are only related to the certain system provider. Under these conditions he will probably lose established business contacts. Therefore, the specific investments, in terms of time and effort in business networks, cause irreversible costs. In case of abandoning the user group, the former member will also lose the privileged treatment of the system provider, he had acquired during the long-term relationship, resulting from high commitment. This may prevent the customer from switching the system provider (Wirtz and Oldero, 2002, p. 529). Therefore, the following hypothesis can be assumed:

H₄: A user group has a positive effect on perceived switching costs.

2.2.3. The impact of user groups on customer retention. In the marketing literature several authors assume a positive effect of the user group on customer retention. In terms of relationship, marketing user groups offer a valuable potential to interact and integrate customers, that finally can strengthen customer retention (Diller, 2001, p. 1714; see also Erichsson and Jenner, 1996, p. 853). Within user groups the regular interaction between customers and system providers intensifies the relationship between the two parties. Generally, user groups are considered as an institutionalized forum to foster business relationships between customers and providers (Erichsson and Jenner, 1997, p. 320). Thus, the corresponding hypothesis is:

H₅: The user group has a positive impact on customer retention.

Those five main hypotheses compose the basis for the following conceptual framework that is investigated in the scope of this empirical study.

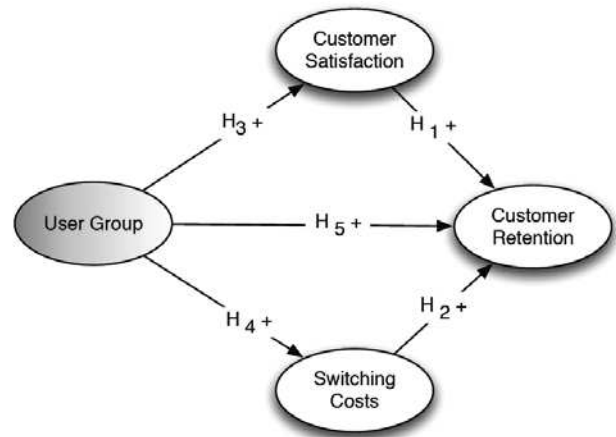


Fig. 1. Conceptual framework

3. Methodology and procedure

The aim of this paper is to investigate the effects of user groups on customer retention towards the system provider. In order to test the above-mentioned hypotheses, six identical questionnaires were established for six different user groups in Germany. The user groups were selected, based on the list of well-known IT-companies in Germany by a convenience sampling method. Empirical data was gathered from a standardized questionnaire among the Siemens, SAP, Oracle, Telekom and IBM user groups from September 2007 till June 2008³. All relevant constructs were measured on multi-item scales. For quality reasons the study is fundamentally based on marketing literature, in order to ensure validity.

First, the chief executive officers (CEOs) of the user groups were contacted to outline the survey. Then user group members were asked to participate in a standardized online questionnaire, where they had to rate the relationship to their system provider on a six-point-rating scale (anchor: "strongly satisfied" vs. "strongly dissatisfied"). In total 1.463 valid questionnaires were obtained.

As our focus is to explain the influence of the user group on the endogenous construct of customer retention, variance-based methods like the partial least squares (PLS) analysis are preferred. Another reason to adopt this approach is that PLS can deal with both formative and reflective constructs, which are both relevant in this case. Contrary to covariance-based structural equation models, which try to reproduce the observed covariance matrix by employing a maximum-likelihood function, PLS understands the

¹ For example communities or consumer clubs in the business-to-consumer context.

² In case of switching the system provider, the customer also has to look for a new user group and to build up new contacts.

³ A pretest was conducted in summer 2007 with 80 user group members to check comprehensibility of the questionnaire and measurement techniques.

latent variable as weighted sum of their respective indicators (Chin and Newsted, 1999; Fornell and Cha, 1994) and tries to predict values for the latent variables by using multiple regressions (Chin, 1998). Moreover, PLS allows the analysis of small samples, so that the individual data sets of each user group could also be analyzed separately (Hermann, Huber and Kressmann, 2006, p. 44).

4. Data analysis and results

Consistent with Gerbing and Anderson (1988), reliability, unidimensionality, convergent validity and discriminant validity of the scales were assessed for all reflective constructs. The items were examined by item-to-total correlations. Items with low correlations were deleted. The remaining items were subjected to exploratory and confirmatory factor analysis to assess unidimensionality and convergent validity. In the process of purifying scales one item, measuring the switching costs, was dropped. Finally, the construct's user group membership, customer retention and switching costs fulfilled standard requirements. Table 1 reports the item loadings, the composite reliability (c.r.), Cronbach's alpha and the average variance extracted (AVE) of the refined measurement models.

Table 1. Scale properties of reflective constructs

Construct	Item	Indicator reliability		Construct reliability		
Quality criteria		loading	t-value	alpha	c.r.	AVE
Requirements		> 0.7	≥ 1.965	≥ 0.70	≥ 0.70	≥ 0.50
UG membership	Mem_UG_1	0.848	60.126	0.729	0.878	0.783
	Mem_UG_2	0.920	166.736			
Customer retention of system provider	CR_SP_1	0.902	142.026	0.846	0.907	0.765
	CR_SP_2	0.803	54.278			
	CR_SP_3	0.915	151.250			
Switching costs	SC_1	0.825	31.125	0.714	0.797	0.512
	SC_2	0.783	18.884			
	SC_3	0.378	4.880			
	SC_4	0.781	21.305			

In the next step discriminant validity was assessed by means of a chi-square difference test and the Fornell-Larcker criterion (see Table 2). The average variance extracted (AVE) exceeded the squared correlation between all constructs. This indicates discriminant validity for all constructs.

Table 2. Discriminant validity

Construct		Mem_UG	CR_SP	SC
Requirement: AVE ($y_i > R^2_{y_i, y_j}$)	AVE	0.78	0.77	0.51
Mem_UG	0.78	Squared correlation of factors		
CR_SP	0.77	0.07		
SC	0.51	0.02	0.03	

Concerning Diamantopoulos and Winklhofer (2001) the quality criteria, e.g., indicator reliability, and multi-collinearity indicators like variance inflation factor (VIF), tolerance and the condition index (CI),

as well as the external validity are assessed for the formative construct of customer satisfaction.

Table 3. Quality criteria of formative measurement models

Construct	Indicator	Indicator reliability		Multi-collinearity				
Quality criteria		weight	t-value	VIF	tolerance	Correlation	CI	
Requirement		> 0.1	≥ 1.965	< 10	> 0.1	Min	Max	< 30
Customer satisfaction (CS)	CS_1	0.652	23.175	1.413	0.708	0.410	0.550	10.3
	CS_2	0.120	3.476	1.382	0.724			
	CS_3	0.208	5.818	1.592	0.628			
	CS_4	0.263	6.845	1.608	0.622			

A two-construct model with formative and reflective indicators was applied to test the external validity of the formative measurement model. In Figure 2 it becomes evident that the relationship between customer satisfaction and global satisfaction with the system provider (SP) is considerable strong and significant. Thus, a valid measurement can be assumed.

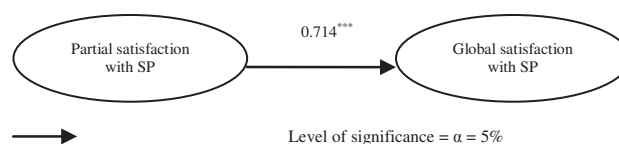


Fig.2. External validity – two-construct-model

In addition to the evaluation of the measurement models, an appropriate analysis is required for the structural model. The following criteria provide significant evidence to assess the quality of the structural model: the coefficient of determination (R^2), the strength, the direction and the significance of path coefficients, the effect size (f^2) and the prognosis relevance (Q^2) of endogenous constructs.

In Table 4 the calculated quality criteria are summarized. The second column of the Table lists the relevant endogenous constructs, the retention to the system provider (CR_SP), the customer satisfaction (CS) and the switching costs (SC). In the first column the antecedent exogenous constructs are listed.

The central evaluation criterion for the structural equation models is the coefficient of determination (R^2), which indicates the explained variance of the dependent variables. It provides a measure of the suitability for the prediction of future outcomes by the model.

This means that 52.2 % of variance of the retention construct can be explained by the antecedent variables. As expected, customer satisfaction (+0.69) has a major positive impact on customer retention, followed by switching costs (+0.12). According to standard guideline values, the coefficient of determination for the endogenous construct retention can be classified as satisfactory. The coefficients of determination of the constructs customer satisfaction and switching costs, however, do not meet the required

standards. This can be explained by the fact that an evaluation of these constructs was not intended, as they are only influenced by one single variable.

Regarding the path coefficients, the relationship between the user group and the customer retention to the system provider is very weak. The t-statistic does not meet the required value. Also, the path between the user group and the switching barriers is not significant. These low t-values indicate a missing direct influence from the user group on customer retention or on the switching costs.

The third criterion, the effect size, gives essential advice on the interpretation of a structural equation model. The effect size f^2 indicates the effect of the exogenous constructs on the variance of the endogenous construct. The effect size of the customer satisfaction on customer retention can be classified as substantial ($f^2 = 0.90$). Thus, customer satisfaction strongly influences customer retention. The switching barriers with an effect size of $f^2 = 0.03$ have a weaker impact on customer retention. These results correspond to the above mentioned path coefficients. The weak path coefficient between the user group and customer retention towards the service provider can be confirmed by effect size. With an effect size of $f^2 = 0.01$ the influence from the independent on the dependent variable is negligible. According to the effect size the user group has no direct impact on customer retention.

The last criterion, the prognosis relevance, measured by means of the Stone-Geisser criterion Q^2 , also fulfills the requested threshold. Therefore, it can be assumed that satisfactory prediction relevance is given.

Table 4. Evaluation of the structural model

Exogenous construct	Endogenous construct	Path coefficient	t-value > 1.96	f^2 > 0.02	R^2 > 0.33	Q^2 > 0.00
Mem_UG	CR_SP	0.077	1.196	0.01	0.522	0.391
SC	CR_SP	0.121	5.143	0.03		
CS	CR_SP	0.677	43.680	0.90		
Mem_UG	CS	0.250	9.830	0.06	0.062	0.035
Mem_UG	SC	0.153	1.893	0.02	0.023	0.014

After having shown that the measurement models are consistent with the empirical data, the sub-

stantial relationships between the user group and the system provider were tested. Table 5 contains the results of the hypotheses testing. It shows that the user group has a positive and highly significant impact on customer satisfaction with the system provider (H_3). Moreover, satisfaction itself has a strongly positive and highly significant impact on retention towards the system provider (H_1).

Hypothesis H_4 , however, which assumes that the user group has an impact on the switching costs of the system provider, cannot be confirmed due to a non-significant path coefficient. That means that a user group is not able to increase the switching costs of a system provider, i.e., it cannot support involuntary commitment towards the manufacturer.

The hypothesis H_5 postulates a direct effect from the user group on the retention to the system provider. This hypothesis deserves a more detailed consideration. The user group has no direct impact on the retention to the system provider (direct path is not significant). Consequently, a user group is not able to increase the customer retention of the system provider directly, so that, the hypothesis H_5 has to be rejected. This does not imply that the user group has no impact on customer retention at all. The analysis of indirect effects has shown that the user group influences the customer retention construct indirectly through the mediator variable customer satisfaction. The results of the indirect analysis give evidence of a complete mediation. By interpreting a complete mediation in this case, the impact of user groups on customer retention is only effective if the customers are simultaneously satisfied with the system provider. Under the condition of a certain degree of customer satisfaction a user group has a positive effect on customer retention.

Moreover, the results prove the well-known positive and highly significant impact of customer satisfaction on customer retention (H_1). Additionally, the switching barriers show a low but positive impact on customer retention (H_2). Overall, the hypotheses H_1 - H_3 can be confirmed, whereas the hypotheses H_4 and H_5 have to be rejected.

Table 5. Results of hypotheses testing

No.	Assumption	(+/-)	Results
H_1	Customer satisfaction of the system provider (CS) → Retention to system provider (CR_SP)	+	✓
H_2	Switching costs (SC) of the system provider → Retention to system provider (CR_SP)	+	✓
H_3	User group membership (Mem_UG) → Customer satisfaction of the system provider (CS)	+	✓
H_4	User group membership (Mem_UG) → Switching costs (SC) of the system provider	+	Not validated
H_5	User group membership (Mem_UG) → Retention to system provider (CR_SP)	+	Not validated

Notes: (+/-) positive/negative impact; ✓ hypothesis cannot be rejected at the 5 % significance level.

By testing the indirect effect in context of H_5 , it became evident that the effect of the user group on customer retention is completely mediated via customer satisfaction, because the direct effect of the user group on customer retention is not significant. The indirect effect, however, is significant and 70% of the effect can be explained by customer satisfaction. According to Cohen (1998), perfect (full) mediation could be proven¹. This means that the effect is entirely mediated through customer satisfaction. The user group only increases the retention towards the system provider, if customers simultaneously are satisfied with the system provider.

Discussion and implications

From a scientific and a managerial perspective this paper provides a contribution to the research of the relatively unexplored area of user groups in the system business. The basic idea of this contribution is to fill this research gap by analyzing and exploring independent user groups empirically as a customer retention instrument.

The collected data confirmed the formulated assumptions on customer retention. Even if no direct influence of the user group on customer retention could be identified, the results show that customer retention is influenced by a user group via an indirect effect. The user group has a positive impact on customer retention via the mediator variable "customer satisfaction". If the customer is satisfied with the service provider on a certain level, the user group has a positive effect on customer retention, mediated by customer satisfaction. Customer satisfaction, therefore, is a precondition to enhance the user group effect on customer retention.

In addition, a direct significant impact of the user group on customer satisfaction was found. Although the customer satisfaction is predominantly determined by the satisfaction with the products, solutions and the business relation, the user group significantly contributes to increased customer satisfaction.

In contrast, the user group does not influence the switching costs significantly. As a result the user

group only enhances customer retention via satisfaction and, thus, on a voluntary basis and not because of switching costs.

Due to the proven effect of user groups on customer satisfaction and retention, the system provider should take care of its user group. Although the user group is an independent organization, the system provider benefits from the cooperation with the user group due to the increase of customer retention. Thus, the system provider should be engaged in building up the number of user group memberships. If the collaboration is efficient, both, the user group and the system provider can profit from a win-win situation.

Limitations and future research issues

Concerning our research objective we explored how the user group can influence customer retention. From a conceptual perspective, this study could have been improved as we had included the research question, if user groups lead to customer retention in our analytical framework to eliminate a self-selection-effect of loyal customers in user groups. Nevertheless, user groups as retention instruments for our research questions can be justified due to literature insights and the following argumentation.

A self-selection effect of loyal user group members in the system business context is not given for the following reason: the system business context concentrates on organizations instead of individuals. Although individual members of a user group often (have to) change their position within companies, company memberships are mostly long-term relations. The majority of user group memberships are initiated by the top management of the member companies, but not by the individuals themselves. For this reason it can be assumed that the decision to participate in a user group is not made by the preferences of individual employees.

For empirical evidence, however, further research is necessary to prove, if user groups have an impact on customer retention and to eliminate the self-selection bias.

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¹ According to Cohen (1988) a statistical power of 99% leads to the assumption of a perfect mediation.

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