

# SITUATIONAL CHARACTERISTICS AS MODERATORS OF THE SATISFACTION-LOYALTY LINK: AN INVESTIGATION IN A BUSINESS-TO-BUSINESS CONTEXT

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## ABSTRACT

This paper researches moderating effects of the customer satisfaction-loyalty link with specific regards to situational characteristics. We develop hypotheses about moderating effects of perceived product importance, purchase uncertainty, switching costs and relationship duration and test them in an empirical study, using data from 425 business customers of a major European energy provider. The results of a multi-group causal analysis indicate that it is important to consider the effect of customer satisfaction on customer loyalty separately for each of the loyalty dimensions, as it is shown that the relationship is moderated by different factors for different loyalty dimensions. In substance, the results suggest that strategies for enhancing word of mouth and reinforcement behavior should focus on different customer groups than those for enhancing price resistance.

## INTRODUCTION

Customer loyalty has been subject to a number of investigations in the last decade (e.g., Anderson and Sullivan 1993; Fornell et al. 1996). The rationale behind this stream of research is that firms that achieve higher loyalty levels should be more successful in the marketplace due to retained customers' word of mouth, higher price tolerance and cross- and up-buying (Reichheld and Sasser 1990). Therefore, much research has been directed at identifying the drivers of customer loyalty (e.g., Keaveney 1995; Mittal and Kamakura 2001).

There is wide agreement that customer satisfaction is a key factor in determining a customer's loyalty level (e.g., Anderson and Mittal 2000; Bloemer and Kasper 1995; Mittal, Ross and Baldasare 1998). However, it has been noted that the link between satisfaction and loyalty is not straightforward (Anderson and Mittal 2000;

Dick and Basu 1994) and that more research is needed to understand the asymmetries (Mittal, Ross and Baldasare 1998), non-linearities (Anderson and Mittal 2000; Jones and Sasser 1995) and moderating characteristics (Homburg and Giering 2001) of the relationship.

This paper attempts to shed light on one of those aspects, namely, the effect of moderating characteristics. In particular, a moderating role of product importance, purchase uncertainty, perceived switching costs and the duration of the customer relationship is researched. A moderating role of certain variables on the satisfaction-loyalty link has implications for market segmentation and prioritization of customer groups - in short, if the strength of the relationship between satisfaction and loyalty differed with respect to certain characteristics, customer groups could be segmented based on those variables. Subsequently, groups for which the relationship between satisfaction and loyalty is stronger could primarily be targeted with satisfaction programs, because prospective returns on satisfaction improvement are higher (Mittal and Kamakura 2001).

While a few studies investigating moderating effects of satisfaction on loyalty have been conducted (Bloemer and Kasper 1995; Mittal and Kamakura 2001; Oliva, Oliver and MacMillan 1992), more research has been called for (e.g., Anderson and Mittal 2000; Homburg and Giering 2001). Specifically, past research is restricted to moderating effects of buyer-related variables, such as age and gender (Homburg and Giering 2001; Mittal and Kamakura 2001) or involvement (Oliva, Oliver and MacMillan 1992; Bloemer and Kasper 1995). In contrast, effects of situational characteristics have been widely neglected (one limited exception is de Ruyter, Wetzels and Bloemer 1998). Further, no research is known that investigates the relationship in a business-to-business setting.

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This paper aims at contributing to research on moderating effects of the satisfaction-loyalty link. Its remainder is organized as follows. First, we briefly review the literature regarding the link between the two key concepts of our work, customer satisfaction and customer loyalty. Next, we develop a theoretically based model of the moderating effects of perceived product-category level variables on the satisfaction-loyalty link. In particular, we investigate the role of product importance (Bunn 1993), purchase uncertainty (Spekman and Stern 1979), perceived switching costs (de Ruyter, Wetzels and Bloemer 1998; Nielson 1996) and the duration of the customer relationship (Bolton 1998). Hypotheses are tested in an empirical study in a business-to-business context.

### **THE DIRECT LINK BETWEEN CUSTOMER SATISFACTION AND LOYALTY**

In recent years, it is more and more common in the marketing literature to view loyalty as an attitude, or at least as an attitude-like construct (Dick and Basu 1994; Jacoby and Chestnut 1978; Oliver 1999). Oliver (1997) defines customer loyalty as a "deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior" (p.392).

Social exchange theory (Blau 1964; Thibaut and Kelley 1959) has been identified as a useful theoretical basis for explaining customer loyalty. According to social exchange theory, exit or maintenance of exchange relationships depends upon future expectations regarding costs and benefits of the relationship, weighted against the expected benefits of alternative relationships (Thibaut and Kelley 1959). In short, in the event that an individual or an organization has multiple options, it will choose the most beneficial relationship, and it will remain as long in a relationship as expectations regarding costs and benefits regarding the current relationship (E) surpass a certain threshold, the so-called comparison level of alternatives ( $CL_{Alt}$ ).

Expectations regarding future costs and benefits are mainly influenced by prior experiences in the relationship. Thibaut and Kelley (1959) suggest that satisfaction judgments are nothing else but the cumulated prior experiences in the relationship – a proposition that is consistent with a relationship (i.e., long term) rather than a transactional (i.e., one-time) view on customer satisfaction. While research during the 1980s has emphasized that customer satisfaction reflects the assessment of a one-time experience, the relationship satisfaction view receives more and more support in the literature (e.g., Dwyer, Schurr and Oh 1987). Consistent with this view, we define customer satisfaction as the outcome of a comparison between expected and perceived performance throughout the customer relationship.

Expectations regarding costs and benefits of the relationship mainly depend on past experience, and satisfying experiences increase the motivation to remain in the relationship (Thibaut and Kelley 1959). Therefore, a positive relationship between customer satisfaction and customer loyalty is in accordance with social exchange theory. The intuitive assumption of a positive effect of customer satisfaction on customer loyalty has been verified in numerous empirical studies (e.g., Anderson and Sullivan 1993; Fornell et al. 1996). For the present paper, this assumption forms the basis of our analysis, because a moderating role of a number of variables on this relationship is investigated. We therefore propose the basic hypothesis that

H<sub>1</sub>: The more satisfied a customer is, the higher her/his loyalty will be.

### **SITUATIONAL CHARACTERISTICS AS MODERATORS OF THE SATISFACTION- LOYALTY LINK**

As described before, research on moderating characteristics of the relationship between satisfaction and loyalty has so far been limited. This is especially true for research on the role of situational characteristics as moderators of the relationship between satisfaction and loyalty, and the literature remains silent on aspects of the

relationship in a business-to-business context.

According to Anderson and Mittal (2000), there should be no principal difference with regards to the satisfaction-loyalty link between the business-to-consumer and a business-to-business context (at least, it may be added, as long as a single person and not a buying center is involved on the client side). However, this may only be partially true when investigating situational variables, because research suggests that industrial buying and satisfaction judgments are influenced by a number of variables that have not been found to be very relevant in consumer decision making and vice versa (e.g., Bunn 1993; Patterson, Johnson and Spreng 1997). Subsequently, we examine four situational characteristics, product importance, purchase uncertainty, switching costs and duration of the customer-firm relationship, as potential moderators of the satisfaction-loyalty link. The first three variables have been selected because they have been found to be important determinants of industrial buyers' purchasing and loyalty behaviors (Bunn 1993; Bunn and Liu 1996; Spekman and Stern 1979; Williamson 1981), and have therefore been suggested as segmentation variables for industrial buyers already. Duration of the customer relationship is a situational characteristic that has been shown to be an important determinant of the satisfaction—loyalty link in a business-to-consumer context already (Bolton 1998), and is a characteristic that is easy to trace for managers. Research findings about a moderating effect of the four mentioned variables on the satisfaction-loyalty link would therefore not only add to academic knowledge, but also be likely to have potential managerial significance, as customers could be segmented and targeted according to those characteristics. Next, we will develop specific hypotheses about their role in moderating the satisfaction-loyalty link.

### **Product Importance**

Product importance is "the buyer's perception of the significance of the buying decision and/or the potential impact of the purchase on the functioning of the firm" (Bunn 1993, p.43).

Similar to the consumer research construct of involvement, perceived product importance is an important determinant for the choice process or heuristics that will be applied in a purchase decision (McQuiston 1989).

In short, when a product is perceived as highly important, business decision makers will engage in more information search activities, and, consequently, be better informed about the product. They will spend more time on making decisions and consider a greater variety of alternatives. Further, they will rethink the quality or the "goodness" of their choice more often and will observe purchase outcomes more carefully than in low-importance cases, which in turn makes it more likely that they will detect even small differences between expectations and performance. Because both positive and negative consequences of such differences are perceived as more critical when product importance is high, the motivation to terminate an unsatisfactory relationship will be high. On the other hand, when the performance surpasses expectations and positive disconfirmation occurs, the motivation to stay with the provider in this critical product category will be strengthened. Hence, customers will react more strongly to satisfactions changes, which means that under high product importance conditions the relationship between satisfaction and loyalty is stronger.

H<sub>2</sub>: The relationship between satisfaction and loyalty is stronger when perceived purchase importance is high.

### **Purchase Uncertainty**

Purchase uncertainty is defined as "the buyer's perceived lack of information relevant to a decision situation" (Bunn 1993, p.44). It has been found to be a key aspect of industrial buying behavior (Spekman and Stern 1979).

For a customer to develop the deep commitment described by Oliver (1999), a relatively high degree of certainty about the quality of a provider is required. For example, the intention to give word-of-mouth means that the customer is ready to make a public commitment to

the provider, which is associated with an inherent risk to give wrong advice, and in part also because receivers of referrals might hold the source responsible for false or incomplete information (Gatignon and Robertson 1986). Also, to resist strong marketing efforts and aggressive price tactics requires that the customer is certain about the superiority of her provider as compared to competitors. Therefore, customer loyalty will increase only slightly even in the presence of a relatively high degree of customer satisfaction when purchase uncertainty is high. At the same time, switching intentions in the presence of dissatisfaction may also be inhibited when uncertainty is high, because it is more difficult to evaluate the attractiveness of alternatives, and decision makers cannot be sure whether other providers will be able to provide better service. In sum, this suggests that the relationship between customer satisfaction and loyalty is significantly weaker when purchase uncertainty is high.

It is therefore hypothesized that

H<sub>3</sub>: The relationship between satisfaction and loyalty is weaker when perceived purchase uncertainty is high.

### **Switching Costs**

The concept of switching costs is theoretically backed by both social psychological exchange theory (e.g., Blau 1964) and newer institutional economics (Williamson 1975). Both approaches highlight that exchange relationships depend to a large extent on the investments made by both parties that are specifically devoted to it. These investments can be described as "the value of specific capital that, in other uses is, by definition, much smaller than the specialized use for which it has been intended" (Williamson 1981, p.555).

From both a customer's and a provider's perspective, having made a specific investment creates switching costs, which are the investment actions that inhibit changing suppliers or customers (Nielson 1996). A number of different types of switching costs can be considered: for example, Heide and Weiss (1995) show that in high technology markets, switching costs can arise

from incompatibility of an installed product or service system (e.g., software) with competing offers. However, in this research we are only concerned with time and hassle as potential sources of switching costs. Time costs evolve because of the time-consuming nature of a search process for a new provider, while hassle refers to the psychic costs of a provider change, including the termination of the relationship with the old transaction partner.

By definition, high switching costs imply that switching is strongly inhibited by past transaction-specific investments. In that case customer loyalty becomes more independent of satisfaction judgments. In other words, high switching costs will eventually outweigh the perceived switching benefits arising from dissatisfaction (Jones, Mothersbaugh and Beatty 2000). For example, price increases will not directly translate into lower loyalty, but will be weighed against those investments, and the relationship between satisfaction and loyalty is weakened. In a consumer setting, the moderating effect of switching costs on the satisfaction-loyalty link has already been confirmed (de Ruyter, Wetzels and Bloemer 1998; Jones, Mothersbaugh and Beatty 2000). Therefore, we propose that

H<sub>4</sub>: The relationship between satisfaction and loyalty is weaker when switching costs are high.

### **Duration of Customer Relationship**

The duration of a customer's relationship with a provider may be seen as an indicator of customer loyalty. In the present study, however, customer loyalty is only viewed as an attitudinal construct, whereas duration is being viewed as a behavioral variable that is independent of attitudinal loyalty. Hence, both long-term or short-term customers may be attitudinally loyal. This distinction may seem problematic at first, but makes sense for the present research since the subsequently presented empirical study deals with a market that has only recently been liberalized. Thus, there may be a large number of long-term customers that are not necessarily attitudinally loyal.

A number of studies show that customers recently acquired from other providers ("new customers") differ from those who have for long been a client of their company ("old customers") with respect to a number of aspects (Bolton 1998; Mittal and Katrichis 2000; Richins and Bloch 1986). First, in forming satisfaction judgments, new customers are focusing on different attributes than old customers. Next, new customers' behaviors are strongly driven by the "newness" of the situation (i.e., the relationship with the provider) while old customers can rely on past experiences (Richins and Bloch 1986). Also, it can be argued that new customers' satisfaction judgments are more transactional, while old customers satisfaction judgments are more relational (Dwyer, Schurr and Oh 1987). Lastly, the satisfaction-retention link has been found to be stronger for old than for new customers (Bolton 1998). These differences, in sum, suggest that also the relationships between satisfaction and loyalty should be different for both groups.

For newly acquired customers, some manifestation of customer loyalty, such as the willingness to disseminate positive WOM, has been shown to occur relatively independent of satisfaction levels, due to the situational involvement of a recent purchase (Richins and Bloch 1986) or to serve the purpose of reducing post-purchase dissonance (Festinger 1957). Hence, loyalty should depend more on satisfaction for long term than for short term customers. Further, it will take some time and cumulative rather than one-time satisfying experiences to build up such a strong commitment to a relationship that satisfaction translates into loyalty. Likewise, Bolton (1998) argues that for long term customer relationships, cumulative experiences with a provider should have more weight than for short term relationships. She shows that satisfaction is a better predictor of retention for long term than for short term customers. Therefore, the relationship between satisfaction and passive loyalty will be stronger for old than for new customers. Hence, we expect that

H<sub>5</sub>: The relationship between satisfaction and loyalty is stronger for old than for new

customers.

## RESEARCH METHOD

### Research Design and Data Collection

For testing the developed hypotheses, an empirical study was conducted. The German market for industrial energy provision represented the chosen industry because (a) energy provision constitutes a service that every company has to use, (b) exploratory interviews revealed that buying decisions are being made and reviewed by a single person in this industry and (c) the relatively recent liberalization of the German energy market should have raised the general market involvement, thus increasing the salience of the topic of loyalty and/or switching behavior in the mind of customers and potentially the likelihood to participate in the study.

Trained interviewers conducted the survey via telephone. The sample was randomly drawn from a large database of German companies ("Hoppenstedt"). In total, the interviewers made calls to 5724 companies. 3131 calls resulted in either no answer or a busy signal even after three calls. 2168 potential respondents refused to participate in the study. 425 interviews were completed. Because of missing values or contradictory answers, seven cases had to be removed from the data set, resulting in 418 usable questionnaires.

### Measurement of Constructs

For measurement of the latent constructs, we used scales from previous research. Customer satisfaction and loyalty have been conceptualized and measured in a large number of earlier studies. In this research, we used a six-item instrument for measuring customer satisfaction and a six-item instrument for measuring customer loyalty. Both instruments consisted of items that had been used in previous studies (e.g., Fornell et al. 1996; Ganesh, Arnold and Reynolds 2000; Homburg and Giering 2001; Rust and Zahorik 1993).

For measuring product importance, purchase uncertainty and switching costs, items used in

previous studies (Bunn 1993; de Ruyter, Wetzels and Bloemer 1998; Nielson 1996) were modified for the present purpose. All three constructs were measured using 3-item instruments. Finally, whether the respondent was a new or an old customer of his provider was measured using a dichotomous, 1-Item measure, indicating whether the company had switched its provider after the market liberalization.

To test the quality of our measures, we conducted exploratory and confirmatory factor analysis and computed coefficient alpha for the final instruments. For customer satisfaction, the exploratory factor analysis revealed a clear 1-factor solution. The average explained variance of this factor was 58%, and coefficient alpha of .85 indicated good reliability for the instrument (Nunnally 1978).

Factor analysis for the loyalty construct revealed a two-factor solution. However, one item did not load highly on any of the two dimensions and was therefore eliminated from further analysis. The remaining five items showed a similar loading structure as in the study by Ganesh, Arnold and Reynolds (2000). In accordance with these authors, we name the first factor active loyalty, as the items pertain to active behavioral intentions such as the willingness to stay in the relationship or recommend the provider to other customers. The second dimension describes behavior in response to competitive action, such as reactions to relative price changes, and is therefore named passive loyalty. Ganesh, Arnold and Reynold (2000) find that those two dimensions are relatively independent of each other, and relate to attitudinally different aspects of the loyalty construct: while active loyalty is a relatively static construct that reflects an assessment of the client-provider relationship, the passive loyalty dimension reflects a more dynamic and comparative perspective on the provider in view of potential market reactions such as competitor's price drops. Alphas equaled .80 for active and .72 for passive loyalty, which can be interpreted as satisfactory (Nunnally 1978).

The instruments for measuring product importance and purchase uncertainty showed high internal consistency (alphas .75, .73, respectively).

For the switching costs instrument, one item had to be removed due to low item to total correlation, and the remaining two items showed good reliability (alpha .84). The use of confirmatory factor analysis for our latent variables produced similar results. In particular, the two-dimensional factor structure for the loyalty items was confirmed. The items used for measuring our latent constructs and key statistical information are listed in table 1.

In order to test for discriminant validity, we applied the Fornell/Larker criterion (Fornell and Larker 1981), which requires that none of the factors among our latent variables should have a higher squared correlation coefficient with any other variable than the average variance explained by the factor. In table 2, we display the correlation matrix and level of significance of our latent constructs (upper non-diagonal elements), as well as the squared correlation coefficients (lower non-diagonal elements). It can be seen that none of the squared correlation coefficients exceed 0.25, while the lowest average variance explained by a factor is .58 (customer satisfaction). Hence, we conclude that discriminant validity is given.

## RESULTS

To test our hypotheses, a structural equation model was computed using LISREL 8.53. First, for testing  $H_1$ , the direct relationship between satisfaction and loyalty, we estimated a model including the customer satisfaction construct and the two loyalty dimensions. Then, we used multi-group causal analysis to test the our hypotheses regarding the moderating influences in our model.

For assessing the overall fit of the model, the most frequent fit indices are reported (e.g., Bagozzi and Yi 1988). In particular, we address chi-squared,  $\chi^2 / df$ , GFI (Goodness-of-Fit), AGFI (Adjusted Goodness-of-Fit) and RMSEA (root-mean-square error of approximation). The  $\chi^2 / df$  statistics for our model is 2.32 and therefore below the recommended 2.5. While RMSEA should not exceed .08, we obtained .06. Finally, GFI und AGFI should reach at least .9, and these criteria were also fulfilled by our model (GFI: .95; AGFI: .91). Overall, our measures indicate a good fit,

**Table 1**  
**Latent Variable Measures**

Factor	Item	Av. Expl. Variance	Cronbach Alpha	Item-to-total
Sat	The relationship with our provider fully matches our expectations.			.78
Sat	We are pleased with the relationship with our provider.			.48
Sat	I am satisfied with our current provider.			.63
Sat	There is nothing negative we can say about our provider.			.63
Sat	I am not convinced of our current provider.*			.74
Sat	My provider does not fulfill our expectations.*	.58	.85	.55
Aloy	I would recommend this provider to other companies.			.68
Aloy	If I had to choose again today, I would select the same provider.			.63
Aloy	We will continue the relationship with this provider.	.72	.80	.63
Ploy	If our provider were to increase prices, we would still stay.			.56
Ploy	If another provider offered a cheaper rate, we would switch.*	.78	.72	.56
PU	Choosing an energy provider is a difficult decision.			.61
PU	It is difficult to judge the quality of an energy provider.			.52
PU	It is not easy to decide between providers.	.79	.73	.56
PI	One should be very careful when choosing an energy provider.			.60
PI	The choice of an energy provider is an important decision.			.60
PI	We take the decision of choosing an energy provider very seriously.	.80	.75	.60
SC	Switching an energy provider costs a lot of time and money.			.74
SC	A lot of hassle is involved when switching a provider.	.87	.84	.74

Sat = Satisfaction; Aloy = Active Loyalty; Ploy = Passive Loyalty

PU = Purchase Uncertainty; PI = Product Importance; SC = Switching Costs

\*= Reversed scaled

**Table 2**  
**Correlations, Level of Significance and Squared Correlations of Latent Constructs\***

	Satisfaction	Active Loyalty	Passive Loyalty	Purchase Uncertainty	Product Importance	Switching Costs
Satisfaction		.50 (.00)	.33 (.00)	.04 (.50)	.15 (.00)	-.13 (.01)
Active Loyalty	.25		.35 (.00)	-.04 (.40)	.07 (.17)	-.11 (.02)
Passive Loyalty	.11	.13		.00 (.96)	.07 (.17)	-.01 (.89)
Purchase Uncertainty	.00	.00	.00		.31 (.00)	.33 (.00)
Product Importance	.02	.00	.02	.10		.01 (.81)
Switching Costs	.02	.01	.00	.11	.00	

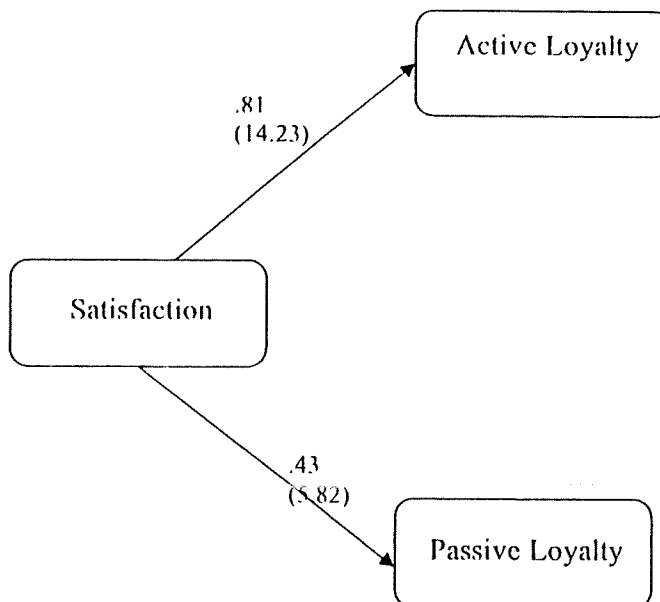
\* Correlation coefficients and p-values are displayed on the upper diagonal. Squared correlation coefficients are displayed on the lower diagonal

with all indices better than the recommended values (e.g., Bagozzi and Yi 1988).

Figure 1 shows the parameter estimates of the model based on the full data set. It can be seen

that hypothesis  $H_1$  receives strong support. Satisfaction exhibits positive, statistically significant influence on both types of loyalty ( $\gamma_a = .82, t = 14.23, \gamma_p = .45, t = 5.82$  for active and for

**Figure 1**  
**Direct Effects of Customer Satisfaction on Loyalty Dimensions**



passive loyalty, respectively).

To test the hypotheses regarding the moderating variables, we used multi-group causal analysis, as suggested by Jöreskog and Sörbom (1993). This technique has been applied for researching moderating effects of satisfaction on loyalty by, e.g., Homburg and Giering (2001), and is typically conducted in four steps:

First, for all latent variables, we split the data set into two groups by performing a median-split. As a result, one group contained the customers that scored high on the respective variable, while the other group consisted of those customers who scored low (for the variable “new vs. old client”, the splitting mechanism was given by our 1-item dichotomous instrument). Second, a path model is estimated for the respective sub-samples, in which all paths in the model (i.e., the two paths from satisfaction to active and passive loyalty) are restricted to be equal between the two groups. Results of this model are similar to the model depicted in figure 1 (there are hardly differences in the parameter estimates, but substantial differences in the fit indices only, as the model is

now estimated from two rather than one covariance matrix). Third, the same path model is estimated in which the path from satisfaction to one of the two loyalty dimensions is allowed to vary between the two groups. This model has one degree of freedom less, because there is one more path to be estimated. In order to determine a moderating influence, in the fourth step attention is drawn to the difference in chi-squared of the two models. A positive moderating influence of a variable is confirmed if (a) the path from satisfaction to the respective loyalty dimension is higher for the group which scores higher on this variable and (b) the drop in chi-squared between the restricted and the unrestricted model with one degree of freedom less (due to the additional path to be estimated) is statistically significant.

In table 3, we display the results of the test regarding the moderating effects. It can be seen that  $H_2$  receives partial support. The relationship between satisfaction and active loyalty is stronger when product importance is high, but no statistically significant difference can be found for passive loyalty.  $H_3$  is also partially confirmed.



**Table 3**  
**Results of Multi-Group Analysis**

<b>Product Importance</b>			
	High	Low	$\Delta\chi^2$
<b>Active Loyalty</b>	.86	.69	4.31**
<b>Passive Loyalty</b>	.47	.53	.01
<b>Purchase Uncertainty</b>			
	High	Low	$\Delta\chi^2$
<b>Active Loyalty</b>	.78	.74	.23
<b>Passive Loyalty</b>	.35	.57	3.33*
<b>Switching Costs</b>			
	High	Low	$\Delta\chi^2$
<b>Active Loyalty</b>	.73	.87	3.32*
<b>Passive Loyalty</b>	.45	.47	.17
<b>Duration of Customer Relationship</b>			
	New Customer	Old Customer	$\Delta\chi^2$
<b>Active Loyalty</b>	.67	.82	3.18*
<b>Passive Loyalty</b>	.29	.55	4.52**

\* = Statistically significant at the 10%-level

\*\* = Statistically significant at the 5%-level

Here, the relationship between satisfaction and passive loyalty is significantly weakened by high purchase uncertainty, but not the satisfaction-active loyalty link. In both cases, the difference between the model parameters is in the expected direction and the chi-squared change from the restricted to the unrestricted model is statistically significant.  $H_4$  is also only confirmed for one loyalty dimension, as there is a negative moderating effect of switching costs on the relationship between satisfaction and active loyalty, while an effect on the satisfaction-passive loyalty link cannot be confirmed. Finally,  $H_5$  receives full support. The effect of satisfaction on both types of loyalty is stronger for old than for new customers.

### DISCUSSION

The results of the present study shed light on a number of important issues regarding the

customer loyalty construct that have not been addressed by previous research. We develop a model of moderating effects on the satisfaction-loyalty link in a business-to-business context. The results show that the relationships between customer satisfaction and two dimensions of the loyalty construct are moderated by various variables, but that these moderating effects can often only be confirmed for one rather than both loyalty dimensions.

These results underline that customer loyalty should be viewed as a multidimensional construct and that the different loyalty dimensions should be considered and analyzed separately. For interpreting our results it is important to keep the differences between the two loyalty dimensions in mind. Active loyalty, such as word of mouth intention, is more strongly influenced by satisfaction when the importance of the purchase is perceived as high, possibly because a high degree of product importance leads to the product

being more often discussed and thought about. This means, in turn, that expectations are more clearly defined in the customers' minds, and assessments of the degree to which those are met becomes more important. The satisfaction-passive loyalty link, however, is unaffected by product importance.

In contrast, purchase uncertainty does not influence the satisfaction-active loyalty link, suggesting that this variable is not relevant for active loyalty behaviors such as word of mouth. But, purchase uncertainty moderates the satisfaction-passive loyalty link negatively. High purchase uncertainty implies high complexity of choice, making it difficult to form strong repurchase or WOM intentions because assessment of the provider in comparison to others is inherently difficult. However, at the same time, high complexity means that a large number of factors have to be considered when a better offer is available and switching is considered, deflating satisfaction's role in switching. In other words, customers who cannot judge the quality of their provider properly are not building up strong price resistance even when satisfied, due to their inability of rating the provider against others.

Further, switching costs negatively moderate the satisfaction-active loyalty link. Hence, when switching costs are high, switching/staying intentions are not strongly dependent on satisfaction, but switching is inhibited by the switching costs themselves. Switching costs, however, do not moderate the satisfaction-passive loyalty link, which means that the level of switching costs is irrelevant when it comes to the effect of satisfaction on the willingness to accept higher prices.

Finally, the duration of customer relationship moderates the link between satisfaction and both active and passive loyalty positively. Long-term customers are more influenced by customer satisfaction than new ones. It seems that, consistent with the hypothesis, when satisfaction judgments are more transactional (such as in the case of new customers), they have less influence on loyalty than when they are cumulative or relational (such as in the case of the longstanding customers), in which case they have less effect on

loyalty.

### MANAGERIAL IMPLICATIONS

In designing satisfaction and loyalty campaigns, managers must have a clear understanding of the two distinct dimensions. For example, an increase in satisfaction among a group of customers that perceive low switching costs and the purchase of the product as being important can be expected to result in more positive word of mouth and repurchase intentions. However, the same campaign directed towards a group that is high in perceived purchase uncertainty will much rather result in increased resistance towards price increases. Depending on the goals of the respective satisfaction investments, managers should target these programs carefully towards the groups. Market segmentation within a company's customer base according to characteristics such as switching costs, product importance and purchase uncertainty should therefore be considered. For example, word of mouth campaigns are more likely to be successful when directed towards customers that are high in product importance and low in switching costs. More defensive strategies directed at keeping customers with the company and building up price resistance will be especially successful when they are geared towards customers high in purchase uncertainty.

For recently recruited customers, the influence of satisfaction on both types of loyalty is weaker. This confirms that companies should indeed strive for long term relationships, because for such customers, they will be able to increase retention rates and loyalty behavior by strongly focusing on service quality and satisfaction. Whether it is worth investing into an increase of new customer's satisfaction has to be decided based on a careful cost-benefit analysis, as new customers will be more likely to defect despite high satisfaction levels, and high satisfaction is not such a strong predictor of retention for them. This finding may be the most actionable of our results, as the distinction between new and old customers is easily made on the basis of customer databases, while customers' rating on all other researched

variables are more difficult to determine.

Finally, it is well worth noting that the effect of satisfaction is much stronger on active than on passive loyalty. Managers must be aware that raising exit barriers and price acceptance is much more difficult than increasing positive word of mouth and reinforcement.

### LIMITATIONS AND FUTURE RESEARCH

This study adds to a stream of research which shows that satisfaction is important, but not sufficient to achieve customer loyalty, and that customer loyalty is multi-dimensional, with the dimensions being relatively independent of each other.

It is important to note some limitations of our work. The findings of the study may not be generalizable as the sample was limited to one industry and one country. Some of the hypotheses could not be confirmed. Further, the response rate was relatively low, potentially giving rise to non-response bias. It could also be that the recent liberalization of the market affects the results. Finally, the analysis of moderating effects was conducted step by step, as is usual for this type of analysis, but it could be that analyzing the moderating factors simultaneously would reveal further interesting results. In sum, this suggests that both substantial results and managerial implications should be viewed as tentative. As the results of the study are in accordance with prior research in that moderating variables clearly affect the satisfaction-loyalty link, future research should test whether the effects found here can be confirmed in other industrial markets as well.

Another limitation of the study is connected with our measures. As widely used, we employed attitudinal multi-item measures for capturing the loyalty construct. While research has repeatedly shown that satisfaction and loyalty measures are good predictors of subsequent retention and loyalty behavior (e.g., Bolton 1998; Fornell et al. 1996), it would be important to study the form and moderating characteristics of the relationship between these attitudinal and behavioral loyalty measures. As outlined by Mittal and Kamakura

(2001), researchers and managers should be aware that the form of the satisfaction-loyalty behavior relationship (e.g., actual repeat purchase, or customer relationship duration) might yet be different from formerly studied and proposed forms. In future research, loyalty should be measured as both an attitude and a behavior to determine the "true" form of the satisfaction-loyalty link.

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