

**The Impact of Customers' Perception of Varying Degrees of Customer Service on  
Commitment and Perceived Relative Attractiveness**

By Tor W. Andreassen\* and Line L. Olsen

**Tor W. Andreassen, PhD**

Professor and Chair, Department of Marketing  
BI Norwegian School of Management  
Room # C4-073  
0442 Oslo, Norway  
E-mail: [tor.w.andreassen@bi.no](mailto:tor.w.andreassen@bi.no)  
Tel: +47 46 41 05 25  
Fax: +47 21048000

\* Corresponding author

**Line L. Olsen, PhD**

Associate Professor at BI Norwegian School of Management

The authors acknowledge data provided by the Norwegian Customer Satisfaction Barometer. Valuable comments provided by members of NSM's marketing faculty are recognized. Both authors have contributed equally to the paper.

## **Structured abstract**

### **Purpose**

The study is motivated by business' mixed response to increasing demand for customer service, leaving the question as to its impact on performance open. Our study is concerned with the impact of customers' perception of customer service (bad/good) on variables that are known to drive revenue, i.e. customer satisfaction, perceived relative attractiveness, and commitment

### **Design/Methodology/Approach**

Data is collected through a survey among bank customers. Two groups are sampled, customers who have experienced good or bad customer service. The hypotheses were tested by applying structural equation modeling and running two group analysis using the PLS and LISREL softwares.

### **Findings**

Customers that experience bad customer service do take into account the same variables in their evaluation as do customers that experience good customer service. They do however, put different weights on every factor in the evaluation process. Also the strength of the relationships between the variables seems to differ. Typically, analyses showed that customers experiencing bad customer service tend to consider more thoroughly all aspects of the service; the relationships between the variables were stronger and the explained variance of each construct higher, than in the group of customers experiencing good customer service. However, the paths are not different across the groups.

### **Limitations/implications**

We have only tested our model and hypotheses in one industry. Future research should test the same model using different industries reflecting different customer involvement levels.

**Practical implications**

From this study, service managers can learn that investing in customer service in ongoing customer relations is “the right thing to do” as it is linked to customer equity through customers’ commitment to the firm. Second, as customer service in such relationships drives perceived relative attractiveness, saving the bottom line by cutting back on the human side of the customer interaction, may harm the firm’s competitive position in the marketplace.

**Originality/value**

The impact of customer service on key performance variables in ongoing relations has to our knowledge never been studied before.

**Key words**

Customer service, perceived relative attractiveness, commitment, banking industry, Norway

**Type of paper**

Research paper

## **Abstract**

Business response to customers' need for service (before, during, and after purchase) is mixed –from investing significantly to not investing at all or even to de-investing – indicating an ambiguity regarding customer service's impact on performance. In this paper we test the impact of good and bad customer service on key business variables such as customer satisfaction, perceived relative attractiveness, and commitment. Our point of departure is in keeping with business' ambiguity, i.e. there are no differences in key business variables between the impacts of good or bad customer service.

Based on the theoretical model, and on data sampled and analyzed we conclude that there are significant differences between customer responses to good and bad customer service. Customers experiencing good customer service are more satisfied, perceive the firm to be relatively more attractive in the market, and are more affectively than calculatively committed to the firm. From these findings, service managers can learn that investing in customer service is “the right thing to do” as customer service is linked to variations in commitment to the firm and thus future revenues. Good customer service stimulates an affective commitment (i.e. warmer) to the firm by making it more attractive in the market and by generating higher levels of customer satisfaction. From this perspective, good customer service is a contributor to customer equity.

## **The Impact of Customers' Perception of Varying Degrees of Customer Service on Commitment and Perceived Relative Attractiveness**

### **Introduction**

Nordstrom and the TV-series Seinfeld's "Soup Nazi" both draw a crowd of customers, but for different reasons. Whereas Nordstrom compliment excellent products with excellent service, the protagonist in the "Soups Nazi" focus on line efficiency and excellent soup quality, but disregard service completely. One may wonder what is the best strategy in the long-run? Customer service can be defined as "creating and delivering the service in the customer's presence, providing information, taking reservations and receive payment" (Lovelock and Wright, 1999, p. 252). It is an element of the firm's market offering that takes place in all phases of a service's life cycle: in the pre-purchase phases (e.g. providing information to make a better decision or training customers in using the service), during the purchase (e.g. front-line employees service mindedness, skills and competences when attending and responding to customer needs) and post-purchase (e.g. providing information pertaining to usage, honoring guarantees or providing repair and spare parts). While customers may have a need to interact with the firm in all phases companies seem to vary to a great extent in how they relate to customers after the initial purchase, i.e. from resource integration to customer avoidance. Trying to get technical support from for example Apple – the supplier of iPod, iPhone, and Quicktime - after electronic purchase and download of a software product is perceived by many individual customers to be more than a hassle. After purchase Apple

practice customer avoidance by keeping the customer at arms' length. Customers are to a large extent forced to rely on Apple's FAQ web pages and user forums to obtain information on how to install or use their products or services. Bed Bath and Beyond – a North American chain selling domestic merchandise and home furnishings– is an example of a company operating at the other end of the scale, i.e. resource integration. Bed Bath and Beyond is highly resource integrative. On their home page, the Internet information about and access to customer service is easy. Their 800-number is easily available, they offer 100% satisfaction guaranteed, and free return. Most importantly, their customer service is valid for as long as you use one of their products. A hybrid solution, i.e. a company not knowing what to do about customer service, is Dell Computers. Over the last two to three years they have been criticized for providing poor customer service as incoming calls have far exceeded capacity. Only when revenue and share prices start to dwindle did management respond to customers' increasing demand for service and support. Finally, in a June 17<sup>th</sup> 2002 report "Surviving Customer Service Hell" CNN Money's reporter Sarah Max quoted Robert Johnson, Executive Director of Consumers' Voice: "Customer service is often the first area to fall under the knife when a company is cutting costs". From the above discussion it is clear that business is not 100 per cent consistent in their view on customer service, i.e. is it a cost or revenue generator? While business may be ambiguous with regard to customer service marketing researchers are evolving toward a common view on this issue.

The service dominant logic on marketing (Lusch, Vargo and O'Brien, 2006; Vargo and Lusch, 2004) is emphasizing resource integration as a prerequisite to co-create

value with the customer. Related to our study this implies that firms should use customer service to connect with customers throughout the lifecycle of the customer relationship. However, not all companies see it this way. The question one is left with is: What is the impact of customers' perception of varying levels of customer service on key drivers of business performance in existing customer relationships?

A review of contemporary marketing literature documents a lack of systematic research on the impact of customer service on customers' evaluations of a firm's service. Exception is made for Merrilees, McKenzie and Miller (2007) who investigate the brand formation process across two countries and find that personal service is a key contributor to this process above price and organization of store. Similarly Swoboda et al. (2007) find that service is the most important attribute in building a strong retail brand across retail settings, when compared to attributes such as value/price, assortment, advertising and store design. These studies underline the importance and relevance of linking service to key performance measures. In this paper we want to contribute to filling this gap in the literature.

Our point of departure is a study by Rust, Moorman and Dickson (2002) who concluded that firms that primarily focus on market investment (i.e. customer service) will do better than firms that primarily focus on cost reduction. We aim to document that customer service will have a significant impact on key business variables beyond brand building, that in the literature have been linked to customer lifetime value, customer value, and finally firm value. The theoretical contribution from this study is our focus on the impact of customer service on key consumer variables in on-going relations in a

competitive context. From our study service managers can learn that customer service is more a revenue generator rather than a cost generator. The paper is structured in the following way: we begin by describing our conceptual model that forms the basis for our study before we analyze data sampled and comment on our findings. We conclude the paper with a discussion of managerial implications and possible limitations of our study.

### **The Conceptual and Theoretical Model**

In keeping with contemporary service quality-customer satisfaction literature – (see for example Zeithaml, Parasuraman and Malhotra, 2002) – we argue that customer service is an antecedent to customers' satisfaction judgment. Customer service is where the firm integrates its resources with the customers' resources. However, not all customers want to be fully integrated with the firm's resources. Whereas some may want the company to relieve them from co-production some may want to be enabled to co-produce (Wickström and Normann, 1994). Our first argument is based on how well the firm has made this alternative resource integration possible for the customers. Our argument is that good or bad customer service will have an impact on customer satisfaction, perceived relative attractiveness, and commitment.

Second, Johnson et al. (2001) argued that cumulative satisfaction is linked to commitment, i.e. “an implicit or explicit pledge of relational continuity between exchange partners” (Dwyer, Shurr and Oh, 1987) The literature reports three dimensions of commitment. Affective commitment is based on emotions and affective attachments to the commitment object (Porter et al. 1974). In short, it is grounded in the



customer's liking and positive feelings for the other party. Calculative commitment is derived from switching costs (i.e. real or perceived barriers to exit) or lack of real alternatives and rests on a customer's cost-benefit evaluation of staying in or leaving the current relationship (Becker, 1960; Geyskens and Steenkamp, 1995 and Kumar, Hibbard and Stern, 1994). Normative commitment is the third and less common dimension and refers to the customers' normative belief that they ought to remain as customers of the company (Meyer and Allen, 1990). In this study we focus on affective and calculative commitment, an approach that is in line with recent research such as for example Gustafsson, Johnson and Roos (2005).

Third, as few companies operate in a non-competitive context, we introduce the idea that changes in cumulative satisfaction, caused by for example good or bad customer service, will update customers' perception of the service provider's relative attractiveness in the market (Andreassen and Lervik, 1999). A change in customers' perceived relative attractiveness of the supplier may be triggered by the supplier's action or by change in competitors' market offering (e.g. change in customer service). It is important to notice that customers perceive comparable, available offers to represent different value in use. Customers' comparison of alternative suppliers is in keeping with the customer equity management literature (see for example Rust, Zeithaml and Lemmon, 2000) that argues that customer's future choice is a function of past choice, present experience, and perceived value of alternative options. Finally, change of patronage not founded in dissatisfaction can be explained by buyers' remorse or regret. Both remorse and regret occurs when alternative outcomes were likely but the

consumer chooses differently due to lack of information about better alternatives, e.g. better customer service (Oliver, 1997). Zeelenberg and Pieters (1999) for instance, found that regret is more associated with switching behavior than disappointment and less associated with word-of-mouth and complaining than disappointment.

It is well established across disciplines that strong attitudes are predictive of behavior whereas weak ones are not (e.g. Miller and Peterson, 2004). Furthermore, the cognitive processes by which an attitude is formed constitute one of the key strength-related attributes (see for example Krosnick and Petty, 1995 and Miller and Peterson, 2004).

Customers who experience variations or changes in customer service will update their attitudes toward the supplier. This change in their evaluation of the company may weaken or strengthen the customers' perception of the firm's relative attractiveness in the marketplace. An erosion of perceived relative attractiveness, for example due to change in customer service, will reduce the customers' affective commitment.

Depending on the amount of switching costs involved a change in commitment will cause an immediate or delayed change of patronage. In keeping with regret theory (Inman, Dyer and Jia, 1997), and the above discussion we predict that in the same way as changes in customer satisfaction are linked to behavioral intent, changes in perceived relative attractiveness are linked to behavioral intent through changes in commitment (affective and calculative).

The above discussion can be summarized in the following set of equations:

Calculative commitment:	CalCom	= $f(\text{CSat}, \text{RelAtt}, \xi_1)$
Affective commitment	AffCom	= $f(\text{CSat}, \text{RelAtt}, \xi_2)$
Perceived relative attractiveness	RelAtt	= $f(\text{CSat}, \xi_3)$
Customer satisfaction	CSat	= $f(\text{CustServ}, \xi_4)$

$\xi$  = error terms not captured in the equation.

The conceptual and theoretical model is illustrated in Figure 1.

---



---

Place Figure 1 about here

---



---

### **Developing Hypotheses**

As firms clearly relate to customer service differently in ongoing customer relationships in competitive markets, the impact of variations in customer service on key customer variables may not be so clear. Despite this observation, a review of the literature and previous research findings give us reasons to believe that customer service is an important means in creating a competitive advantage and a sound economy for service companies. In fact, in light of the new service-dominant logic emerging in marketing, this

model should also be generalizable to companies that primarily sell tangible services.

Consequently, our first hypothesis is:

**H<sub>1</sub>:** Customer service as perceived by customers has a direct effect on customer satisfaction and an indirect effect, through customer satisfaction, on relative attractiveness and commitment across groups experiencing good versus bad customer service.

Whereas the conceptual model is the same across groups, there are strong reasons to believe that how these two customer groups think and later act are different. In keeping with Andreassen (2001), Bolton and Lemon (1999) and Kahneman and Tversky's (1979), "losses loom larger than gains" argument, contemporary service research (see for example Zeithaml et al., 2002), and "the elaboration likelihood model framework" (ELM) (Petty and Wegener, 1998), we anticipate that customers that experience bad customer service go through a different evaluation process than customers experiencing good customer service. Although, involving the same arguments (constructs like customer service, satisfaction, relative attractiveness and commitment), the process is likely to be more based on simple, efficient, and systematic rules (i.e. heuristics) among customers receiving bad customer service. Following the logic of ELM these customers will due to a higher degree of involvement, follow the central route to cognition. Customers who experience good customer service, on the other hand, elaborate less, they do not have to find as many reasons for continuing their

behavior in the future; a few information cues are enough to confirm that their choice is right. Building on ELM their elaboration is referred to as the peripheral route to cognition; it is less demanding and more holistic. Integrating these observations with theory on testing differences across groups (see for example Bagozzi and Edwards, 1998 and Bollen, 1989), leads us to deduct that different elaboration routes should be reflected in differences in correlation coefficients across groups. More specifically, because customers experiencing bad customer service elaborate more, we would think that the correlation coefficients would be stronger in that group than in the group experiencing good customer service, because the latter group do not process the experience in the same complex way. Consequently, our second hypothesis is:

H<sub>2</sub>: For customers reporting bad customer service experiences the correlations between constructs are stronger than for customers reporting good customer service.

Consistent with Selnes and Hansen (2001), who concluded that a transformation from personal service to self-service had a negative impact on social bonds even in low-complexity relationships, we believe that customers who report bad customer service will have a somewhat less affectionate relationship with the supplier.

We propose the following hypothesis for empirical testing:

H<sub>3</sub>: Compared to customers reporting good customer service experiences, customers reporting bad customer service experiences will be less affectionately committed and more calculatively committed to the firm.

## **Methodology**

### *Research design and sample*

A cross-sectional research design was chosen for the purpose of this study. The analytical procedure consisted of two main steps and the proposed model was estimated using two methods. In the first step we use PLS (Wold, 1989) as the primary estimation method. Second, we follow the procedure suggested by (Fornell, 1992; Fornell and Cha, 1994; Fornell et al., 1996; Steenkamp and Trijp, 1996 and Johnson et al., 2001). Then we add covariance analysis using LISREL (Jöreskog and Sörbom, 1999a) to make sure that the model we test is robust, following Kujala and Johnson (1993) recommendations. Finally, a detailed step-by-step, two-group analysis was performed to establish potential differences across the bad and good customer service groups as suggested by Bagozzi and Edwards (1998) and Bollen (1989). In the second step, we tested for mean value differences in the endogenous variables in the conceptual model. We ran mean differences analyses across the bad versus good customer service groups using t-tests.

The data was collected through the annual data collections for the Norwegian

Customer Satisfaction Barometer (NCSB)<sup>1</sup>. The collection was conducted by a professional marketing research bureau that interviewed the respondents by telephone. Prospective respondents who were not available on the first call were called back three times before a substitute was picked. Each interview lasted approximately 15 minutes. The banking industry targeted to individual consumers was chosen as the context of investigation. There are several reasons why we chose the banking industry. First, it is among the most advanced industries today, concerning service delivery. Customers can choose how they want to interact with the bank or its employees, e.g. calling the bank, visiting the bank, ATMs, pay by phone or pay over the Internet, etc. Second, the banking industry around the world is under reorganization, changing from smaller to larger units as well as constantly seeking new and more efficient business models. Through mergers and acquisitions and intensive use of technology in both upstream and downstream activities, numerous employees have been given notice over the years. The quest for increased efficiency in this industry has taken its toll on customer satisfaction. In fact, data from NCSB<sup>2</sup>, from 2000 to 2007 document that customer satisfaction in the banking industry is close to unchanged in that period. This is consistent with the Pan European Customer Satisfaction Index, which shows that average customer satisfaction in Europe<sup>3</sup> has increased slightly in the period from 2001 to 2007. Today, the average is approximately 73 points on a 0-100 scale, as such it indicates that customers are more

---

<sup>1</sup> The NCSB follows the same procedures as the Swedish and the American Customer Satisfaction Index. See Fornell, C. (1992) and Fornell et al. (1996) for an excellent description

<sup>2</sup> <http://www.kundebarmeter.com>

<sup>3</sup> <http://www.epsi-rating.com>

indifferent than satisfied with the industry. Also we see a similar pattern in the US<sup>4</sup> where the average customer satisfaction score has been increasing since 2000 and is slightly higher than in Europe, averaging at 78 in 2007. As the same scale is applied in the US this indicates that the customers are satisfied but by no means delighted. Although, we only focus the banking industry in this study, we have strong reasons to believe that the findings should be generalizable to other industries as well. First of all, competition is increasing across industries. Second, and due to the competition, the characteristics of the development in the bank industry are also found in several other service and manufacturing industries.

*Sample Descriptives: good versus bad customer service*

The total sample consists of 899 respondents. Of these respondents, 378 report a low score (< 8 on a 10-point LIKERT scale) on customer service and 521 report a high score (= or > 8 on a 10-point LIKERT scale). The cut-off point was defined as a function of sample size and variation needed to compare means. This practice is in line with Jones and Sasser (1995).

There were no particular demographic characteristics distinctive to either group. In the bad customer service sample, 52 percent of the respondents were men and 48 percent women. In the good customer service sample 48 percent were men and 52 percent women. The average length of the customer - bank relationship was 15 years in the sample receiving bad customer service, and 17 years in the sample receiving good

---

<sup>4</sup> <http://www.theacsi.org>



customer service. In the bad customer service sample, 53 percent had a university degree, while only 37 percent had a university degree in the sample getting good customer service.

### *Measures*

Customer satisfaction is operationalized in accordance with the national customer satisfaction indexes (see for example Johnson et al., 2001), and by three indicators (see appendix A). Building on Andreassen and Lervik's (1999) operationalization of relative attractiveness the construct is extended by three indicators (see appendix A). In Andreassen and Lervik (1999), attractiveness is conceptualized and measured by eliciting an assessment of the customer's insurance company relative to a comparative standard or reference point – specifically, “compared to other insurance companies” (p. 20) – consistent with regret theory e.g., Bell (1985); Loomes (1982) and Loomes and Sudgen (1986). In the current study, perceived relative attractiveness is expanded and it now contains two dimensions, i.e. value attractiveness and image attractiveness. Unlike Grönroos (1984) where image is the result of customers' perception of technical service quality (absolute evaluation), image attractiveness in this study is a relative factor, i.e. compared to other companies. This expansion is inspired by the work of Dancin and Brown (1997), who find that consumers' knowledge about a firm can influence their beliefs about and attitudes toward new products manufactured by the firm and that corporate ability and corporate social responsibility associations may have different effects on consumer response to products.

Affective and calculative commitment are operationalized as suggested by Kumar and his colleagues (1994), Samuelsen (1997) and Samuelsen & Sandvik (1997). We made minor adaptations to our context and measured the constructs by 3 items each (see appendix A). A 10-point Likert-type scale was applied when measuring the construct, including exclusively positive values ranging from 1 to 10. The questionnaire consisted of two scales anchored by “disagree” and “agree”, and “dissatisfied” and “satisfied”. Respondents were provided with a “don’t know” and “cannot answer” in case of indifference or lack of knowledge.

#### *Customer service*

Since measuring customer service in itself is not the issue of this study, the construct is computed as a composite index made up of eight items. Our goal was to define factors that 1) are not phase specific and 2) reflect various factors associated with customers’ perceptions of the frontline person (employee’s appearance, helping you if you have any problems, creating an atmosphere of assurance, treating you with respect, being polite, providing personal attention, anticipating your needs). This operationalization is in line with several other studies, for instance Olorunniwo and Hsu (2006), which was conducted in the same industry, and Swobodam Haelsig, Morschett and Schramm-Klein’s (2007) intersectorial study. Items were anchored by good/bad, and to what degree the respondents would agree with the statements. Communalities extracted ranged from .503 to .814. See Appendix B for more details. Again, as this paper was not concerned with measuring customer service in itself, we used a principal component for

customer service. We identified this factor by running a principal component analysis (using SPSS) on all customer service measures. The program saved the first factor as another variable in the data set. Consequently customer service is a standardized variable, with a standard deviation of 1 and a mean of 0.

## **Results**

### *Evaluating the conceptual model: PLS Analysis*

Our first step in evaluating the model's performance was to look at convergent and discriminant validity by reviewing the measurement variable (MV) loadings, provided by the PLS analyses. Overall, the MV loadings in both of the two samples were relatively large and positive. 84 per cent of the indicators had correlations coefficients exceeding .707. Thus they shared more than 50 per cent of the variance with their respective constructs e.g. (Johnson et al., 2001). This is referred to as communality (Fornell and Cha, 1994). Our next step was to assess the average communality for each latent variable in the two samples. According to rules of thumb, the average communality should be  $>.50$ . In this data set, there was only one latent variable that fell below in each sub-sample, i.e. calculative commitment. Still, the values were very close to .50 (.46 and .44). The rest of the latent variables all exceeded the 0.5 criterion. To ensure that the model measured what it is supposed to measure, we explored whether each latent variable shared more variance with its indicators than it did with other constructs in the model (Fornell, 1992; Fornell et al., 1996 and Johnson et al., 2001). We looked at the percentage of latent variable (LV) loadings (see Appendix C for correlations between the

latent variables) that exceed the MV correlations (see Appendix D for factor loadings provided by PLS). In summary we found that only 6 per cent of the factor loadings fell below the correlation between the LVs, and all these indicators were used to measure calculative commitment. Thus, we can conclude that both convergent and discriminant validity are strong and any weaknesses in the model are concentrated in the calculative commitment construct.

To evaluate the latent variable results, we examined the size and the significance of the predicted path coefficient. We then evaluated the model's ability to explain variation in the endogenous variables, relative attractiveness, satisfaction, calculative and affective commitment. Jackknife estimates were generated to evaluate the significance of the paths (Fornell et al., 1996 and Johnson et al., 2001). Out of the 12 paths (6 paths \* 2 samples) only 1 was insignificant (8 per cent). Table 1 reports the size and significance of each path for each sample.

---

---

Place Table 1 about here

---

---

From Table 1 we can learn that all but one of the paths were significant, i.e. the path between customer satisfaction and calculative commitment. This path was found insignificant in the sub-sample reporting good customer service.

The second indicator of the model's performance was its ability to explain the

important latent variables in the model. Explained variance in the endogenous variables by sub-sample is reported in Table 2.

---

---

Place Table 2 about here

---

---

From Table 2 we see that explained variance ( $r^2$ ) for customer satisfaction varies from 13 per cent (in the good customer service sample) to 25 per cent (in the bad customer service sample). The differences between the two samples were smaller concerning the explained variance of relative attractiveness (28 and 24 per cent), whereas the differences were larger concerning affective and calculative commitment.. It seemed to be a consistent pattern across the constructs that explained variance is lower in the sample reporting good customer service than in the sample reporting bad customer service. We see that explained variance is ranging from 13 to 28 per cent (23per cent on average) in the sample reporting good customer service and from 25 to 41 per cent (33 per cent on average) in the sample reporting bad customer service. Although explained variance is somewhat low in the sample reporting good customer service, it is in line with previous research (see for example Fornell et al. 1996).

#### *Evaluating the conceptual model: LISREL Analysis*

To test the model's robustness, we analyzed the data using covariance structure

analysis (LISREL) as well. As the data are truncated into two samples, both samples are highly skewed and consequently violate the main assumption for analyzing data using structural equation modeling. Realizing that non-normality may cause problems to our analysis we transformed the data set using PRELIS based on Anderson and Gerbing (1988) and Jöreskog and Sörbom's (1999b) recommendations. We tested the conceptual model using the two-step approach suggested by Anderson and Gerbing (1988); first, we tested the measurement models and then the causal model. Our factors and constructs all passed these tests. However, it should be mentioned that the factor loading of one of the indicators measuring calculative commitment was very high (.99), and that calculative and affective commitment are very close yet distinct constructs. Furthermore, we entered all constructs in the model at the same time and computed them as exogenous variables (ksis). We did this to reveal any potential conflicts between the constructs before we tested the structural model. Our model provided acceptable fit statistics and did not reveal any particular problems between any constructs. Based on the measurement models and the tests we conducted, we can conclude that the convergent and discriminant validity both are satisfactory. Finally, we ran the structural model, which provided assessments of nomological validity (Anderson and Gerbing, 1988). In doing so we looked at both absolute and incremental fit statistics (Bollen, 1989; Gerbing and Anderson, 1993 and Marsh, Balla and Hau, 1988). Of the absolute fit statistics we examined the chi-square and GFI (Jöreskog and Sörbom, 1989), SRMR (Bentler, 1995), the RMSEA (Browne and Cudeck, 1992) and (Steiger, 1989). Of the incremental fit statistics we reviewed AGFI (Jöreskog and

Sörbom, 1989) and (Bentler, 1983) and NNFI (Bentler and Bonett, 1980). According to the different cut-off criteria provided in the literature (Hu and Bentler, 1998 and 1999 for an overview), we draw that our causal model was within the acceptable range of all fit statistics. The RMSEA was below .08, the SRMR was low (.037), GFI was well above .90 (.96), as were AGFI (.94) and NNFI (.95). As the chi-square is sensitive to the sample size above 200, this is not a very good indicator of model fit in our study. Minor misspecifications may become significant with larger samples. Last but not least, all paths in the structural model were found to be significant when running the LISREL analyses. In summary, we claim that the model fit the data reasonably well.

### **Testing hypotheses**

Besides examining goodness-of-fit statistics we also looked at the factor loadings and the error terms. While the factor loadings are similar to the ones provided by PLS, they are somewhat lower. The error terms are all positive and significant. Most of them are within an acceptable range. Some high terms were found for the measures operationalizing calculative commitment. Despite some high error terms for two of the calculative commitment indicators, we kept these indicators in the model for theoretical reasons; which is in line with what Anderson and Gerbing (1988) suggest. Next, we examined the paths to see if they were consistent with the PLS results.

All in all we draw that our conceptual model was supported in both samples. We conclude this based on the results demonstrating that the model achieved reasonably good fit in both samples. These results are consistent across PLS and LISREL; that is,

the LISREL analyses supports the PLS findings. Furthermore we find that all of the paths in the model are significant except the path between customer satisfaction and calculative commitment. However, the latter result was not found consistently across either samples or methods of analyses. Consequently, we draw that H1 was supported.

To test hypothesis H2 we performed a detailed step-by-step, two-group analysis. First, we randomly sampled 378 of the 521 respondents reporting good customer service to make the samples of equal size. Second, we followed the procedures outlined in Bagozzi and Edwards (1998) and Bollen (1989), in which two hierarchies of tests are recommended. The purpose of running these tests was to reveal whether the measurement model holds across customers reporting good and bad customer service and to identify potential differences in their evaluations. When testing the measurement model, we looked at the invariance of parameters across the two samples. We found that we had to reject the hypothesis that the matrices are identical for customers reporting good and bad customer service. Next, we found indications that the factor pattern was similar across the two groups. That is, the five factors shown in Figure 1 fit the data satisfactorily for both samples reporting good and bad customer service. From this we could see that the hypothesis of equal factor loadings should be rejected. Likewise, we would reject the hypothesis that error variances are equal. The hypothesis of equal correlations among factors was rejected.

As part of testing for H2, we also had to test whether there were differences in the causal model across the two groups. When computing these analyses we learned that all paths in the model were different across the groups except for the path between



relative attractiveness and calculative commitment, and the path between customer service and satisfaction. Also, our results indicated that the paths in the model were typically stronger in the group reporting bad customer service group than in the group reporting good customer service. In other words, the customers who received good customer service had significantly weaker correlations among the constructs in the model. Thus, we find support for H2. More specifically we found across the two groups that customer service is a strong driver of satisfaction; customer satisfaction has a strong effect on relative attractiveness and a strong effect on affective commitment. Customer satisfaction does have a strong effect on calculative commitment in the group reporting bad customer service. Customer satisfaction has no effect on calculative commitment in the group reporting good customer service. In contrast, relative attractiveness has a stronger effect on calculative commitment than on affective commitment in both groups. The effect seems stronger in the group reporting good customer service than in the group reporting bad customer service. Relative attractiveness has a stronger effect on affective commitment in the bad customer service group than in the good customer service group.

Finally, we tested H3 by conducting different T-tests. First, we ran independent T-tests (see Appendix E). By doing so, we found that customers who reported good customer service are significantly more affectively committed than customers who report bad customer service. This finding supports the first part of H3. Second, by running one-sampled T-tests (see Appendix F), we found that, in both groups, customers were significantly more affectively than calculatively committed to the firm. This is

contradicting the last part of H3. Consequently, we must conclude that H3 was only partly supported.

## **Summary**

In this study we have challenged service companies' ambiguous view on customer service, i.e. cost generator or revenue generator. The purpose of our study was to test the Impact of customers' perception of varying degrees of customer service on commitment and perceived relative attractiveness. We have compared two samples; customers who received good customer service to customers who received bad customer service. Based on a review of the literature, we proposed three hypotheses. Two of these hypotheses are fully supported, while the third hypothesis is only partly supported. We find that the causal model, in which customer service is an important direct and indirect driver of key performance variables, is supported in both groups. Consequently, for both samples customer service has an impact on customer satisfaction directly, while indirectly affecting relative attractiveness and commitment through satisfaction. Although, the variables customers evaluate are the same across bad and good customer service, the strength of the relationships between the variables varies from group to group. Customers who experienced bad customer service seem more likely to go through a more complex elaboration process than customers that experienced good customer service. Finally, there are differences when it comes to affective commitment across the groups; customers who experienced good customer service are more affectively committed than those who experienced bad customer

service. Still, independent of the level of customer service received, customers are more affectively than calculatively committed.

## **Discussion**

In this paper we have documented that customer service is an important variable in creating a competitive advantage and a sound economy through satisfied and committed customers. We have focused on established customer relationships, as customer service practices seem to vary more in this phase of the customers' lifecycle than in earlier phases. We have observed that in business some companies give high priority to customer service after the sale while others do not. Based on our study, we can conclude that customer service is an important driver of customer equity and as such should be a high priority when attracting and keeping the right profitable customers

We have observed that customers that experience bad customer service do take into account the same variables in their evaluation as do customers that experience good customer service. If they have received bad or good customer service, respondents put different weights on every factor. Also the strength of the relationships between the variables differs. Typically, analyses showed that customers experiencing bad customer service tend to consider more thoroughly all aspects of the service; the relationships between the variables were stronger and the explained variance of each construct higher, than in the group of customers experiencing good customer service. However, two paths are not different across the groups. Customer service seems to be a strong and clear driver of satisfaction, and relative attractiveness seems to have the

same positive effect on calculative commitment in both groups. This finding indicates the importance of customer service and illustrates that relative attractiveness may be a more rational construct that should indeed be included in customer satisfaction modeling. All other correlations reflecting the relationship between the constructs in the model varied in the two samples.

Customers who think more tend to form stronger attitudes and opinions (Petty and Wegener, 1998). This does not mean that customers that report having received good customer service do not form strong opinions. On the contrary, receiving good customer service makes it easier for them; it confirms their choice as being the right one and demonstrates that the firm actually has a relative advantage over other companies. These customers do become more easily affectively committed and their relationship with the firm may continue.

In this study, customers experiencing good customer service do have longer relationships (17 years) than those experiencing bad customer service (15 years). However, as this study is conducted in the banking industry, customers reporting bad customer service may still have longer relationships than such customers in other industries. This may be due to lack of better alternatives, or to high perceived or real switching barriers normally associated with calculative commitment. Still, if these customers time and again experience bad customer service, their negative opinion will become the stronger one as losses loom larger than gains, and may ultimately result in switching. The customers experiencing good customer service are more full-fledged customers, and a reliable source of income. However, there are, reasons to be careful.

Customers with strong affective commitment, if disappointed through bad customer service, may turn into terrorists, with an equally affective commitment to harm the service company (Hart and Johnson 1999). Although, customers experiencing good customer service are significantly more affectively committed to the firm than those experiencing bad customer service both groups of customers were more affective than calculative in their commitment. Consequently, we conclude that all of our hypotheses were supported, although H3 was only partially supported.

### **Managerial implications**

This study has several managerial implications. First, customer service is a key driver of customer satisfaction, perceived relative attractiveness and customers' affective and calculative commitments. For this reason reducing customer service is not a straightforward decision. While the short-term effect will be an improved bottom line, the long-term effect will be a reduced top line – triggering the firm's death spiral (Rust et al., 1996). From this finding, service managers can learn that customer service is linked to customer equity (Blattberg and Deighton, 1996) through customers' commitment to the firm. Customers reporting bad customer service are more inclined to have a balanced commitment, being both of an affective and calculative form. Customers reporting good customer service, on the other hand, seem to be solely affectively committed. From this we can conclude that good customer service is critical to every business relationship. Second, as customer service drives perceived relative attractiveness, saving the bottom line by cutting back on the human side of the customer interaction, may harm the firm's

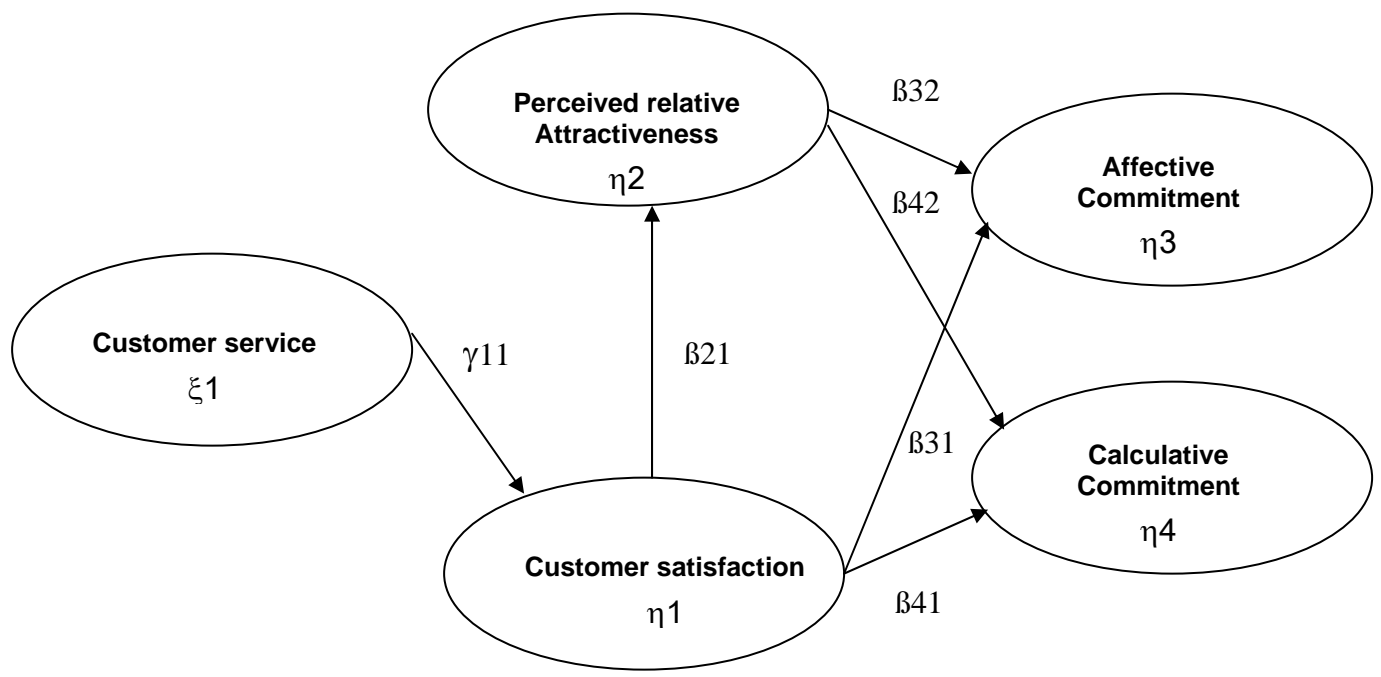
competitive position in the marketplace. From this finding, service managers can learn that variations in customer service due to, for example, quality or availability, have an impact on customers' perception of the firm's relative attractiveness in the marketplace. Customers reporting good customer service systematically see the firm as more attractive than other real alternatives in the marketplace. Third, our study illustrated the duality of service productivity (Parasuraman, 2002). While good customer service reduces firm productivity in the short term it increases customer productivity. Improved customer productivity by for example reduced customer input through for example better supplier-customer resource integration is found to improve convenience (Berry, Seiders and Grewal, 2002). Improved convenience due to better customer service is associated with an increase in customer perceived service quality. From our study we will add increased customer satisfaction, perceived relative attractiveness and affective commitment. Finally, in simulation studies (Gupta and Lehman, 2005) or empirical studies (Fornell et al., 2006) a marginal change in customer satisfaction is found to have a strong impact on firm value through retention and Tobin Q respectively. Our study links customer service to commitment (a proxy for loyalty) directly through customer satisfaction and indirectly through perceived relative attractiveness. Based on this we will claim that customer service is a driver of firm value.

### **Avenues for Future Research**

Several avenues for future research could be drawn from this study. We have identified the importance of customer service to customer satisfaction, perceived relative

attractiveness and commitment. Relevant follow-up questions could then be: “What is driving customer service?” and “What are the organizational support systems necessary for the frontline personnel to provide excellent customer service for ‘bricks and mortar’ companies?” Second, despite the fact that relative attractiveness, as a key factor in keeping up with increasing competition, should be of most relevance to every service marketer, further research on the effect of perceived relative attractiveness on behavioral intentions should be conducted. Third, as service marketers need to tie the customers to their businesses in many ways, we should focus on other aspects or phases of customer loyalty, such as affective and calculative commitment (Oliver, 1997). Finally, one question in need of investigation is “What are the characteristics of excellent frontline personnel?” After all, it is not a matter of whether to focus on customer service. Rather, it is all about how a service provider can build the most effective support system for the customer to experience the highest value in use. From this study, we may certainly conclude that customer service matters.

**Figure 1: The Theoretical Model**





**TABLE 1**

**Paths Coefficients in the Causal Model**

<b>Path Coefficient</b>	<b>Bad Customer Service</b>	<b>Good Customer Service</b>
CustServ $\square$ Csat	0.50	0.37
CSat $\square$ RELatt	0.53	0.49
CSat $\square$ AFFcom	0.41	0.38
CSat $\square$ CALcom	0.31	0.09*
RELatt $\square$ AFFcom	0.31	0.23
RELatt $\square$ CALcom	0.36	0.45

\* not significant

**TABLE 2**

**The Explained Variance in the Key Latent Variables**

<b>Variance Explained R<sup>2</sup></b>	<b>Bad Customer Service</b>	<b>Good Customer Service</b>
Csat	0.25	0.13
RELatt	0.28	0.24
AFFcom	0.41	0.28
CALcom	0.37	0.25

**TABLE 3**

**Results from hypotheses testing**

<b>Hypotheses</b>	<b>Result</b>
H <sub>1</sub> : Customer service as perceived by customers has a direct effect on customer satisfaction and an indirect effect, through customer satisfaction, on relative attractiveness and commitment across groups experiencing good versus bad customer service.	Supported
H <sub>2</sub> : For customers reporting bad customer service experiences the correlations between constructs are stronger than for customers reporting good customer service.	Supported
H <sub>3</sub> : Compared to customers reporting good customer service experiences, customers reporting bad customer service experiences will be less affectionately committed and more calculatively committed to the firm.	Partly Supported

## APPENDIX A

### Measurement and Latent Variables

Measurement variable	Latent variable
Overall satisfaction	Customer satisfaction
Performance versus the customer's ideal service provider in the category	Customer satisfaction
Expectancy disconfirmation (performance that falls short of or exceeds expectations)	Customer satisfaction
Attractiveness compared to other companies	Perceived relative attractiveness
Price compared to other companies	Perceived relative attractiveness
Reputation compared to other companies	Perceived relative attractiveness
The pleasure taken in being a customer of the firm	Affective commitment
Identification with what the firm stands for	Affective commitment
Feeling of belongingness to the firm	Affective commitment
The most profitable alternative	Calculative commitment
Location advantages versus other companies	Calculative commitment
Alternative service providers	Calculative commitment

## APPENDIX B

### Criteria for Evaluating Service

	Initial	Extraction
How good or bad do you think the employee's appearance is?	1.000	.590
How good or bad is the employee in helping you if you have any problems?	1.000	.503
How good or bad is the employee in creating an atmosphere of assurance?	1.000	.696
To what extent does the employee treat you with respect?	1.000	.777
To what extent is the employee polite?	1.000	.731
How good or bad is the employee in giving you personal attention?	1.000	.667
How good or bad is the employee in anticipating your needs?	1.000	.686
How good or bad does the employee treat you?	1.000	.814

<Extraction Method: Principal Component Analysis.

## APPENDIX C

### Correlations Between Latent Variables

Latent Variable	Good Cust Serv	Bad Cust Serv	Good Csat	Bad Csat	Good AFF com	Bad AFF com	Good CAL com	Bad CAL com	Good REL att	Bad REL Att
Customer Service	1									
Customer Satisfaction	.37	.50	1							
Affective Commitment	.42	.40	.49	.58	1					
Calculative Commitment	.22	.30	.31	.50	.48	.62	1			
Perceived relative Attractiveness	.20	.34	.49	.53	.42	.53	.49	.52	1	1

## APPENDIX D

### Factor Loadings (PLS)

Measurement variable	Good CSat	Bad Csat	Good REL att	Bad REL att	Good AFF com	Bad AFF com	Good CAL com	Bad CAL Com
Overall satisfaction	0.85	0.86						
Performance versus the customer's ideal service provider in the category	0.81	0.83						
Expectancy disconfirmation (performance that falls short of or exceeds expectations)	0.76	0.77						
Attractiveness compared to other companies			0.77	0.79				
Price compared to other companies			0.78	0.74				
Reputation compared to other companies			0.73	0.78				
The pleasure taken in being a customer of the firm					0.84	0.86		
Identification with what the firm stands for					0.81	0.84		
Feeling of belongingness to the firm					0.82	0.88		
The economics (benefits versus costs) of the alternative							0.92	0.91
Location advantages versus other companies							0.58	0.70
Alternative service providers							0.39	0.19

## APPENDIX E

### Independent T-test results:

Variable	Group	Mean	Signf.
Affective commitment	Bad customer Service	5.1885	.000
Affective commitment	Good customer service	7.1765	
Calculative commitment	Bad customer Service	4.6795	.000
Calculative commitment	Good customer Service	5.3637	

## APPENDIX F

### One-sampled T-tests results:

Group	Variable	Mean	Signf.
Bad customer service	Affective Commitment	5.1185	.000
Bad customer service	Cacluative commitment	4.6795	
Good customer service	Affective Commitment	7.1387	.
Good customer service	Cacluative commitment	5.3817	.000

## References

- Anderson, J. C. and Gerbing, D. W. (1988), "Structural equation modeling in practice: a review and recommended two-step approach," *Psychological Bulletin*, Vol. 103 No. 3, pp. 411-23.
- Andreassen, T. W. and Lervik, L. (1999), "Perceived relative attractiveness today and tomorrow as predictors of future repurchase intention," *Journal of Service Research*, Vol. 2 No. 2, pp.164-72.
- Andreassen, T. W. (2001), "From disgust to delight: do customers hold a grudge?" *Journal of Service Research*, Vol. 4 No. 1, pp. 39-49.
- Bagozzi, R. P. and Edwards, J. R. (1998), "A general approach for representing constructs in organizational research," *Organizational Research Methods*, Vol. 1 No. 1, pp. 45-87.
- Becker, H. S. (1960), "Notes on the concept of commitment," *American Journal of Sociology*, Vol. 66 No. 1, pp. 32-40.
- Bell, D.E. (1985), "Disappointment in decision-making under uncertainty," *Operations Research*, Vol. 33 No. 8, pp. 1-27.
- Bentler, P. M. (1995), *EQS: Structural equations program manual*, Multivariate Software, Encino, CA.
- Bentler, P. M. (1983), "Some contributions to efficient statistics for structural models," *Psychological Bulletin*, Vol. 107 No. 2, pp. 238-46.
- Bentler, P. M. and Bonett, D. G. (1980), "Significance tests and goodness-of-fit in the analysis of covariance structures," *Psychological Bulletin*, Vol. 88, pp. 588-606.
- Berry, L.L., Seiders, K. and Grewal, D. D. (2002), "Understanding service convenience," *Journal of Marketing*, Vol. 66 No. 3, pp. 1-17.
- Blattberg, R. C. and Deighton, J. (1996), "Manage marketing by the customer equity test," *Harvard Business Review*, Vol. 74 July/August, pp. 136-44.
- Bollen, K. A. (1989), *Structural equations with latent variables*, John Wiley, New York, NY.



- Bolton, R. N. and Lemon, K. N. (1999), "A dynamic model of customers' usage of services: usage as an antecedent and consequence of satisfaction," *Journal of Marketing Research*, Vol. 36 May, pp. 171-86.
- Browne, M. W. and Cudeck, R. (1992), "Alternative ways of assessing model fit," *Sociological Methods and Research*, Vol. 21 No. 2, pp. 230-58.
- Dacin, P.A. and Brown, T. J. (1997), "The company and the product: corporate associations and consumer product responses," *Journal of Marketing*, Vol. 61 No. 1, pp. 68-84.
- Dwyer, R.F., Shurr, P. H., and Oh, S. (1987), "Developing buyer-seller relationships," *Journal of Marketing*, Vol. 51 April, pp. 11-27.
- Fornell, C. (1992), "A national customer satisfaction barometer: The Swedish Experience," *Journal of Marketing*, Vol. 56 No. 3, pp. 6-21.
- Fornell, C. and Cha, J. (1994), "Partial least squares," in Bagozzi, R.P. (Ed.), *Advanced Methods of Marketing Research*, Cambridge, Blackwell, pp. 52–78.
- Fornell, C., Johnson, M. D. Anderson, E. W. Cha, J, and Bryant, B. E. (1996), "The American customer satisfaction index: nature, purpose, and findings," *Journal of Marketing*, Vol. 60 October, pp. 7-18.
- Fornell, C., Mithas, S., Morgeson, F. V. III, and Krishnan, M. S. (2006), "Customer satisfaction and stock prices: high returns, low risk," *Journal of Marketing*, Vol. 70 January, pp. 3-14.
- Gerbing, D. W. and Anderson, J. C. (1993), "Monte carlo evaluations of goodness-of-fit indexes for structural equation models," in Bollen, K. A. and Long, J. S. (Ed.), *Testing Structural Equation Models*, Sage Publications, Newbury Park, pp.40-65.
- Geyskens, I. and Steenkamp, J. B. E. M. (1995), "An Investigation into the joint effects of trust and interdependence on relationship commitment," in *Marketing for Today and the 21th Century, Proceedings from the 24th EMAC Conference: European Marketing Academy*.
- Grönroos, C. (1984), "A service quality model and its marketing implications," *European Journal of Marketing*, Vol. 18 No. 4, pp. 36-45.
- Gupta, Sunil and Donald R. Lehman (2005), *Managing Customers as Investments*, Pearson Education Inc., Upper Saddle River, NJ.

Gustafsson, A., Johnson M.D. and Roos, I. (2005), "The effects of customer satisfaction, relationship commitment dimensions, and triggers on customer retention", *Journal of Marketing*, Vol. 69 October, pp. 210-218

Hart C.W. and Johnson, M. D. (1999). " A framework for developing trust relationships", *Marketing Management*, Vol. 8 No. 1, pp. 20-22.

---

[http://www.ibm.com/annualreport/2006/higher\\_value.shtml](http://www.ibm.com/annualreport/2006/higher_value.shtml). Accessed 10 March 2008.

[http://www.epsi-rating.com/index.php?option=com\\_content&task=view&id=39](http://www.epsi-rating.com/index.php?option=com_content&task=view&id=39). Accessed 10 March 2008.

<http://www.kundebarmeter.com/index.php?content=nkbres2006&criteria=tilfredshet>. Accessed 10 March 2008.

[http://www.theacsi.org/index.php?option=com\\_content&task=view&id=147&Itemid=155&i=Banks](http://www.theacsi.org/index.php?option=com_content&task=view&id=147&Itemid=155&i=Banks). Accessed 10 March 2008.

Hu, L. and Bentler, P. M. (1998), "Fit indexes in covariance structure modeling: sensitivity to underparameterized Model Misspecification," *Psychological Methods*, Vol. 3 No. 4, pp. 424-53.

Hu, L. and Bentler, P. M. (1999), " Cutoff criteria for fit indexes in covariance structure analysis: Conventional Criteria versus New Alternatives", *Structural Equation Modeling*, Vol. 6 No. 1, pp. 1-55.

Inman, J.J., Dyer, J. S. and Jia, J. (1997), "A generalized utility model of disappointment and regret effects on post-choice valuation," *Marketing Science*, Vol. 16 No. 2, pp. 97-111.

Johnson, M. D., Gustafson, A., Andreassen, T. W., Lervik, L., and Cha, J. (2001), "The evolution and future of national customer satisfaction indices," *Journal of Economic Psychology*, Vol. 22 No. 2, pp. 217-45.

Jones, T., O. and Sasser, E. W. Jr. (1995), "Why satisfied customers defect," *Harvard Business Review*, Vol. 73 November/December, pp. 88-99.

Jöreskog, K. G. and Sörbom, D. (1989), *LISREL7: A Guide to the program and applications*, 2nd Edition, SPSS Inc., Chicago, Ill.

Jöreskog, K. G. and Sörbom, D. (1999a), "LISREL." 8.3, *Scientific Software International, Inc. Chicago, Ill.*

Jöreskog, K. G. and Sörbom, D. (1999b), "PRELIS." 2.30, Scientific Software International, Inc., Chicago, Ill.

Kahneman, D. and Tversky, A. (1979), "Prospect theory: an analysis of decision under risk," *Econometrica*, Vol. 47 March, pp. 263-91.

Krosnick, J. A. and Petty, R. E. (1995). "Attitude strength: an overview." In Petty, R. E. and Krosnick, J. A. (Ed.) *Attitude Strength: Antecedents and Consequences*, Lawrence Erlbaum Associates, Mahwah, NJ, pp. 1-24.

Kujala, J. T. and Johnson, M. D. (1993), "Price knowledge and search behavior for habitual, low involvement food purchases," *Journal of Economic Psychology*, Vol. 14 No. 2, pp. 249-66.

Kumar, N. J. , Hibbard, J.D. and Stern, L.W. (1994), "An empirical assessment of the nature and consequences of marketing channel intermediary commitment." *Marketing Science Institute*, Cambridge, MA.

Loomes, G. (1982), "Regret Theory: An alternative theory of rational choice under uncertainty," *The Economic Journal*, Vol. 92 No. 368, pp. 805-24.

Loomes, G. and Sudgen, R. (1986), "Disappointment and dynamic inconsistency in choice under uncertainty," *Review of Economic Studies*, Vol. 53 No. 2, pp. 271-82.

Lovelock, C. and Wright, L. (1999), *Principles of Service Marketing and Management*, : Prentice Hall, Upper Saddle River, NJ.

Lusch, R. L., Vargo, S. L. and O'Brien, M. (2006), "Competing through service: Insights from service-dominant logic," *Journal of Retailing*, Vol. 83, No. 1, pp. 5-18.

Marsh, M. W., Balla, J. R. and K. - T. Hau (1988), "An Evaluation of incremental fit indices: a clarification of mathematical and empirical properties," in Marcoulides, G. A. and Schumacker, R. E. (Ed.), *Advanced Structural Equation Modeling: Issues and Techniques*, Earlbaum, Mahwah, pp.315 -354.

Merrilees, B. McKenzie, B. and Miller, D. (2007)," Culture and marketing strategy in discount retailing", *Journal of Business Research*, Vol. 60 No. 3, pp. 215-221.

---

Meyer, J. P. and Allen, N. (1990), "A three-component conceptualization of organizational commitment", *Human Resource Management Review*, Vol. 1 No. 1, pp. 61-89

Miller, J. M. and Peterson, D. A. M. (2004) " Theoretical and empirical implications of attitude strength", *The Journal of Politics*, Vol. 66 No. 3, pp. 847–867

Oliver, R. L. (1997), *Satisfaction: A Behavioral Perspective on the Consumer*. McGraw-Hill Companies, Inc., New York, NY.

Olrunniwo, F. and Hsu, M. K. (2006). "A typology of service quality, customer satisfaction, and behavioral intentions in mass services", *Managing Service Quality*, Vol. 16 No. 2, pp. 106-123.

Parasuraman, A. (2002), "Service quality and productivity: a synergistic perspective," *Managing Service Quality*, Vol. 12 No. 1, pp. 6-9.

Petty, R. E. and Wegener, D. T. (1998). "Attitude change: multiple roles for persuasion variables". In Gilbert, D. Fiske, S. and Lindzey, G. (Ed.), *The handbook of social psychology*, McGraw-Hill, 4th ed., New York, NY, pp. 323-390.

Porter, L. W., Steers, R. M., Mowday, R. T. and Boulian, P. V. (1974), "Organizational commitment, job satisfaction, and turnover among psychiatric technicians," *Journal of Applied Psychology*, Vol. 56 No. 5, pp. 603-09.

Rust, R. T., Moorman, C. and Dickson, P. R. (2002), "Getting return on quality: Revenue expansion, cost reduction, or both?," *Journal of Marketing*, Vol. 66 No. 4, pp. 7-25.

Rust, Roland T., Zahorik, A. J. and Keiningham, T. L. (1996), *Service Marketing*. New York, NY: Harper Collins.

Rust, R.T., Zeithaml, V. A. and Lemmon, K. (2000), *Driving Customer Equity : How Customer Lifetime Value is Reshaping Corporate Strategy*. The Free Press, Boston, MA.

Samuelsen, B. M. (1997), "Kundelojalitet: årsaker og effekter. (Customer loyalty: Causes and Effects)," Post graduate thesis, Buskerud College.

Samuelsen, B. M. and Sandvik, K. (1997), "The concept of customer loyalty," in *The 25th EMAC Conference*. University of Warwick, UK.

Selnes, F. and Hansen, H. (2001), "The potential hazard of self-service in developing customer loyalty," *Journal of Service Research*, Vol. 4 No. 2, pp. 79-90.

Steenkamp, J.-B. E. M. and van Trijp, H. C. M. (1996), "Quality guidance: a consumer-based approach to food quality improvement using partial least squares," *European Review of Agricultural Economics*, Vol. 23 No. 2, pp. 195-215.

Steiger, J. H. (1989), *EzPATH: A Supplementary Module for SYSTAT and SYGRAPH*. Evanston: SYSTAT.

Swoboda, B. Halesig, F., Morschett, D. and Schramm-Klein, H. (2007). "An intersector analysis of the relevance of service in building a strong retail brand", *Managing Service Quality*, Vol. 17 No. 4, pp. 428-448.

Vargo, S. L. and Lusch, R. F. (2004), "Evolving to a new dominant logic for marketing," *Journal of Marketing*, Vol. 68 January, pp. 1-17.

Wickström, S. and Normann, R. (1994), *Knowledge and Value: A New Perspective on Corporate Transformation*. Routledge, London.

Wold, H. (1989), *Theoretical Empiricism: A General Rationale for Scientific Model Building*. New York.

Zeelenberg, M. and Pieters, R. (1999). "Comparing service delivery to what might have been", *Journal of Service Research*, Vol. 2 No. 1, pp. 86-97.

Zeithaml, V. A., Parasuraman, A. and Malhotra, A. (2002), "Service quality delivery through Web sites: A critical review of extant knowledge," *Journal of the Academy of Marketing Science*, Vol. 30 No. 4, pp. 362-75.