Path Analysis of Perceived Service Quality, Satisfaction and Loyalty in the Banking Industry of Iran

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Abstract: The purpose of this study is to determine the path of service quality, satisfaction and loyalty in the Iranian banking industry. A SERVQUAL scale was designed to measure service quality for the Iranian banking industry. A path analysis was conducted to examine the model, which links the constructs of service quality, customer satisfaction and loyalty at the level of individual indices of these constructs. Among the dimensions of the SERVQUAL scale, only “tangible” dimensions have not had an effect on customer satisfaction in Iranian banking system. The limitation of the research is the relevance of this model to another service industry. Another limitation is the available sampling. Banking managers may seek to use the SERVQUAL scale in order to measure banking service quality. Instead of tangible components, they must improve other intangible components and attempt to direct their support towards the increase in the customers who tend to use word of mouth advertisement. This paper deals with the investigation of the path of service quality, customer satisfaction and loyalty at some specific levels originating from the Iranian banking system.

Key words: Banking industry, customer satisfaction, customer loyalty, Iran, service quality, SERVQUAL

INTRODUCTION

Companies may use different strategies in accordance with their position and environmental conditions. Typically, companies deal with two kinds of marketing strategies; i.e. aggressive and defensive strategies. When a company seeks to attract new customers and increase its market share against other rivals, it implements the aggressive strategy. On the other hand, the defensive strategy is used when a company tries to keeps its markets and products as well as reducing its costs (Anderson et al., 1994).

The aggressive strategy is the more common method (Fornell, 1992), but studies show that the defensive strategies can be more effective as they keep the older customers and sell more to them, this reducing costs (Tsoukatos and Rand, 2006). The long ties between the customer and the supplier can cause an increase in the interactive sales, sales with higher prices, and an increase in word of mouth (WOM) advertisements (Wang, 2011).

The creation of satisfaction and loyalty in banking customers is a concept that today is considered one of the main factors for the success of banks. No business can survive without the satisfaction and loyalty of the customer. Furthermore, since the expectations of the customers are growing consistently, banks are forced to go beyond the initial needs of the customer, meet their expectations and put their concentration on the creation of satisfaction, loyalty and trust through the establishment of a long-term, mutual and two sided profitable connection (Dick and Basu, 1994).

The perceptions of service quality as well as customer satisfaction are those kinds of factors that are now among the most noticeable in discussions about marketing. However, the big question here is which one of these two factors will better result in customer loyalty and whether or not these are related. If yes, then what is their cause and effect relationship and to demonstrate whether or not the customers are in a position so that they can distinguish them (Edward and Sahadev, 2011).

The goal of this paper is to investigate a path that starts from the service quality, reaches customer satisfaction, and ends in customer loyalty. For this purpose, the indices of the perception of service quality, customer satisfaction and customer loyalty to the Iranian banking industry are examined. After a brief review of the literature, the research method and its main results are provided. After these sections the conclusion and recommendations for future studies are set forth.

LITERATURE REVIEW

Service quality: The importance of the provision of services is more than simply production in countries with
advanced economies. Hence, service quality has gained a noticeable position in marketing management literature (Tsoukatos and Rand, 2006).

Service quality is defined as a consumer’s judgment about a product’s overall excellence (Zeithaml, 1988) and is conceptualized as the consumer’s evaluation based on the comparison between customer expectations and perceived performance (Parasuraman et al., 1988; Bolton and Drew, 1991; Walker et al., 2006).

The results of most research on service quality indicate that because services have been intangible or heterogeneous and their production and consumption times are usually inseparable, the process by which the customers evaluate the service quality is completely compounded and not easily recognizable easily. The idea that services are evaluated through their consumption as well as the production process and supply process is generally accepted.

The SERVQUAL scale: The SERVQUAL scale provides a reliable method to measure service quality (Brysland and Curry, 2001). In this method, the quality level of the services experienced by the customer is determined by the gap between their usual expectations of the service and their perception of the services they received from a service provider (Babakus and Boller, 1992). In the main model of Parasuraman et al. (1985), they identified 10 criteria with which the customers evaluated service quality (Donnelly et al., 1995). In 1988, after a practical analysis to determine the interactions among these criteria, three of them; i.e. tangibles, reliability and responsiveness remained unchanged and the other seven criteria were classified into two broader dimensions named assurance and empathy (Parasuraman et al., 1988). Thus, the final classification regarding the service quality dimensions is provided as follows:

- **Tangibles:** the surface form of the facilities, equipment, personnel and communication devices
- **Reliability:** ability to fulfill the promised services reliably and accurately
- **Responsiveness:** tendency to help customers and provide services for them
- **Assurance:** the awareness and politeness of the personnel and their ability to create assurance and reliability
- **Empathy:** concern and personal attention of the organization to its customers

The main SERVQUAL scale includes the studies in two parts consisting of 22 service characteristics grouped into five dimensions of assurance, empathy, reliability, responsiveness and tangibles (Ladhari, 2009).

In a research study on customers and the central groups in five different service industries by Parasuraman et al. (1988), the customers were asked to perform two evaluations about every characteristic, in which one of them was the reflection of their expectations of the provided service level by the superior companies of one sector, and the other demonstrated their perception and interpretation of the provided services by a special company in the same sector. Therefore, the expectation scale measured the degree that the customers felt the companies should have a special service characteristic in that sector and the perception scale measured whether the customers felt that the given company had the characteristic. Every characteristic was designed as a phrase. Based on the phrases, the customers were asked to indicate the level of their agreement or disagreement based on a five-item scale (Gounaris et al., 2003). However, there are some criticisms about the SERVQUAL scale in two conceptual and psychological dimensions (Buttle, 1996; Bebko, 2000; Yoon and Ekinci, 2003).

**Customer satisfaction:** Customer satisfaction is one of the vital matters for today’s organizations so much so that the failure or success of an organization is determined based on the satisfaction of their customers concerning their products or services. Customer satisfaction results in customer loyalty and loyal customers spend more money to purchase the productions or services of the organization while encouraging others to purchase from the organization and tend to pay more to purchase its products. The increase in repurchases reduces customers’ complaints. The satisfied customers are less sensitive towards the price, purchase more products, are less influenced by the rivals and are more loyal (Jahnson et al., 2001).

Customer satisfaction is the basis for Total Quality Management (TQM) plans. TQM is a management approach that is based on the participation of all of the personnel with the goal of long-term success through customer satisfaction. However, the most common definition for customer satisfaction is that satisfaction is an emotional reaction to the difference between what the customer expects and what he receives (Fronell et al., 1996). Since the perception of satisfaction is obviously affected by previous expectations, it is clear that satisfaction emerges from the customer judgment in the form of rejection as the difference between the expectations from the provided services and his perception of the real service performance. Satisfaction includes customer satisfaction or dissatisfaction with the service provided, and the total customer satisfaction is his total satisfaction or dissatisfaction with all of his
Many researchers have tried to describe and model the relationship between service quality and customer satisfaction. The matters discussed in most of this research focus on the questions of whether or not these two concepts are different and distinct and which one is prior to the other. In fact, it is essential to ask does customer satisfaction result in service quality or vice versa (Oliver, 1993)? Most of the research on this matter has shown that these two concepts are distinct (Lasser et al., 2000). This distinction is in the fact that service quality is a kind of long-term attitude and general evaluation, but satisfaction is associated with a certain exchange (Gotlieb et al., 1994). In the measurement of service quality, consideration is put on what the customer should expect, but in the measurement of satisfaction, what the customer expects is considered. Regarding the question of whether service quality is prior to satisfaction or whether or not satisfaction results in service quality, the research reached contradictory results. In a study, it was claimed that the high levels of perceived service quality result in customer satisfaction. In this view, if a customer’s expectations are more than his perception of the provided services, he is dissatisfied. Nevertheless, if a customer’s perception of service performance is more than his expectations, this results in customer satisfaction. Therefore, researchers believe that service quality results in customer satisfaction (Parasuraman et al., 1988, 1985). On the other hand, there is another view arguing that customer satisfaction results in service quality. The foundation of this theory is the definition of service quality as the total superiority or preference of a nature (Brady and Robertson, 2001). Bitner (1990), in his research on 145 tourists in an international airport, experimentally showed that customer satisfaction results in service quality. In another research study, this assumption that service quality is equivalent to an attitude was used as the basis for the priority of customer satisfaction to service quality. In this study the perceived service quality was considered as a function of the remaining perception of the customer of the provided services at the previous period and his satisfaction or dissatisfaction level of the service performance. This point indicates that satisfaction is a distinct concept that mediates between the perception before the service quality and the present perception of the service quality. Finally, it was explained that service quality is a function of satisfaction or dissatisfaction and congruity or incongruity of services with customer expectations (Bolton and Drew, 1991).

Customer loyalty: Some of the earlier studies concluded that quality results in keeping customers (Steenkamp, 1989), profitability (Reichheld and Sasser, 1990), market share (Buzzell and Gale, 1987) and advantages (Phillips et al., 1983). In the early 90s, only the effect of quality on advantages and the total economic performance of the companies were considered important and only these factors were examined (Rust et al., 1995). The later studies considered the effect of service quality on repurchase intention and marketing performance through customer satisfaction (Anderson and Sullivan, 1993; Chumpitaz and Paparoidamis, 2004). Merely considering the quality does not result in advantages by itself because the relations between service quality and advantages may not always be obvious (Greising, 1994).

The variable that adjusts customer satisfaction and economic performance is loyalty. Customer loyalty is a concept that has enjoyed wide currency and usage within the field of consumer behavior for many years. Dick and Basu (1994) viewed customer loyalty as the strength of the relationship between an individual’s relative attitude towards an entity (brand, service and store) and repeat patronage.

The positive correlations between customer satisfaction and keeping the customer as well as loyalty and word to mouth advertisement are reported in several research studies (Mittal and Kamakura, 2001; Chumpitaz and Paparoidamis, 2004).

Anderson and Sullivan (1993) believe the higher levels of customer satisfaction result in the enhancement of loyalty, reduction of price fluctuations, preservation of the current market share, reduction of new customer attraction costs, and supporting companies in creating positive feelings.

The suppliers of financial services across the world have realized the fact that the plan for the consistent satisfaction of their customers is the most effective way to keep them and, as a result, decreasing the need to invest in attracting new customers. High quality services bring about higher resale and improvement of the market share (Buzzell and Gale, 1987). Van der et al. (2002) explicated the relation between customer satisfaction and total economic performance. Lee and Hwan (2005) concluded that in banking system, customer satisfaction, from the view of the customer himself, has a direct effect on his purchase intentions. However, from the view of bank management, satisfaction has a significant effect on profitability.

The matter that seems to be most interesting is the word of mouth advertisements of the satisfied customers which attracts new customers. The satisfied customers, with their word of mouth advertisements, can affect the purchase intentions of those who have not had a relation...
with a certain company (Rowley, 2005). If the positive word of mouth advertisements result in the attraction of new customers, they reduce marketing costs and can increase income (Sit et al., 2009).

In the banking industry, behavioral loyalty is demonstrated through customer intention to receive financial services from the same provider. Attention to service quality and reaching customer satisfaction and loyalty are vital for banks’ survival. It is obvious that sales service quality can bring about positive results through customer loyalty, positive word of mouth advertisements, recurring sales and mutual sales (Taylor, 2001).

RESEARCH METHODOLOGY

The present research consists of several stages. At the first stage, a questionnaire was designed to measure the service quality and total satisfaction in the Iran banking industry as well as to estimate their behavioral and emotional dimensions of loyalty. The second stage consists of collecting data through the questionnaire, evaluating the measurement method and confirming or rejecting the different dimensions of service quality (Parasuraman et al., 1988). At the third stage, the path analysis of service quality was conducted in order to determine the cause and effect relations among the different constructs of service quality.

First stage: Questionnaire design: A four section questionnaire was used to perform the research. The first section includes the demographic questions. The second section includes a certain form of SERVQUAL scale. As the result of the consultation with the executive managers of the banking system, four questions were added to the initial questions of the SERVQUAL. “Bank profit” was added to the “tangibles” in the SERVQUAL section, and “qualitative services and products supply,” “contracts with expressive and clear words” and “claim adjustment without any delay” were added to the items of “credit” questions of the questionnaire. Therefore, the new questions added up to 26.

In the third section, customers were asked to indicate their total satisfaction with their bank and its services in a ten-item scale. Finally, the rationale behind the fourth section of the questionnaire was to evaluate the level of the customers’ behavioral and emotional loyalty. To do this, the respondents were asked to provide answers to the following questions: “Do you suggest your bank and its services to your friends and relatives?” This question investigates their intention for the positive word of mouth advertisement. The other question, “How do you cover your other bank needs in the future?” measures their level of behavioral loyalty. The answers to this question were “I receive services from the same bank,” “I search for the best service available in the market,” and “I receive services from another bank.” The doubt may arise that these choices are not comprehensive. For example, when a customer searches for the best service in the market, he may receives services from the same bank or another bank. However, it must be noted that these answers reflect the different levels of customer loyalty based on their intentions, not the results. Thus, the above answers are comprehensive.

Second stage: Data collection and measurement: The questionnaire was used to collect data in three the Northern cities of Ramsar, Tonekabon and Chalus. To do so, the availability sampling method was implemented. The respondents were over 22 years old and have had the experience of receiving services from their representative banks. Finally, 480 samples were selected randomly. The coefficient alpha was used for the examination of the scale’s reliability. The alphas of the individual dimensions were 0.77 for tangibles, 0.91 for reliability, 0.87 for responsiveness, 0.94 for assurance, and 0.86 for empathy.

Third stage: Path analysis: The LISREL 8.8 statistical package was used to perform path analysis at this stage to investigate the relationship between dimensions of service quality, overall satisfaction and loyalty. As Singh and Wilkes (1996) noted, path analysis is more favorable than ordinary regression methods because it concurrently performs multiple regression analyses while it produces an overall assessment of the model’s fit, usually based on a chi square statistic. In this study, five different aspects of service quality (Tangibles, Reliability, Responsiveness, Assurance and Empathy) were taken into account and their effect on overall satisfaction of consumers is estimated. The variables “overall satisfaction,” measuring the customers’ overall satisfaction of service quality, “recommendation,” indicating the intention of customers to recommend the company and its services, and “Intention” represents the tendency of customers to receive services again from the same bank, were the model’s endogenous variables. The variables Tangibles, Reliability, Responsiveness, Assurance and Empathy and Overall Satisfaction were defined as continuous. The dimensions of service quality were Likert variables with five points and overall satisfaction was a ten point Likert variable. The variables recommendation (dichotomous) and intent (trichotomous), were treated as ordinal. Such variables are often regarded as “categorized” versions of Likert variables. In the case of recommendation the answers “No” and “Yes” were considered as representing the lowest and highest point of a Likert scale. In the case of intention, “Receive services from other banks” was considered as corresponding to the lowest point of the Likert scale, “Receive services from the same banks” to the highest and “search the market for the best deal” as representing the scale’s median point.
Model estimation: Maximum likelihood (ML) is the most commonly used estimation method in SEM. It maximizes the probability that the observed covariances are drawn from a population that has its variance-covariance matrix generated by the process implied by the model, assuming multivariate normality. Multivariate normality is not generally met in practice and several estimation methods for overcoming the fit problems arising from its absence have been developed (Tsoukatos and Rand, 2006). ML itself is fairly robust against violations from multivariate normality. However, to extend its applicability, corrections have been developed to adjust ML estimators to account for non-normality, including the Satorra and Bentler (1988) statistic incorporated in most SEM packages. In terms of sample size, the minimum n for ML estimation should be at least 200, according to some researchers. Others suggest at least fifteen times the number of observed variables or five times the number of free parameters for strongly kurtotic data (Golob, 2003). Our sample size of n = 480 meets all these requirements given that our model contains only eight variables. Before analysis, our data set was screened and found to deviate from multivariate normality. Hence, the robust maximum likelihood estimation method, based on the correlation matrix and the asymptotic covariance matrix, was used and the solution shown in Fig. 1 was obtained.

RESULTS AND DISCUSSION

The estimated path coefficients partially support the argument that quality is an antecedent and that it positively affects customer satisfaction (Cronin and Taylor, 1992; Tsoukatos and Rand, 2006). While Reliability ($\beta = 0.10, t = 2.58$), Responsiveness ($\beta = 0.43, t = 11.57$), Assurance ($\beta = 0.26, t = 6.62$) and Empathy ($\beta = 0.16, t = 4.17$) have a positive effect on satisfaction, Tangibles ($\beta = 0.02, t = 0.60$) doesn’t have a significant effect on consumers satisfaction. Significant dimensions of service quality explain 44.2% of the variance of overall satisfaction.

The argument that satisfaction is an antecedent and positively influences loyalty is supported by the findings. The path coefficient from Overall satisfaction to recommendation is significant ($\beta = 0.44, t = 10.71$). Overall satisfaction explains 20% of recommendation’s variance. Overall satisfaction and recommendation, explain 33 percent of the variance of intention. The coefficient of recommendation is significant ($\beta = 0.47, t = 11.31$) and the coefficient of overall satisfaction is also significant ($\beta = 0.18, t = 4.41$). This confirms our hypothesis that emotional loyalty is an antecedent of customer’s behavioral loyalty. Satisfaction does positively influence customers’ behavioral intentions and engages them in positive word of mouth (WOM) for the supplier.

Overall model fit: Diamantopoulos and Siguaw (2000) suggest that the results of the chi-square test used in conjunction with the RMSEA, ECVI, standardized RMR, GFI and CFI indices are sufficient to assess a model’s overall fit. A non-significant chi-square statistic is an indication that the model can reproduce the population covariance matrix. In our case, the Satorra and Bentler (1988) scaled chi-square statistic was used and found to be non-significant. The root mean square error of approximation (RMSEA) indicates “how well would the model, with unknown but optimally chosen parameter values, fit the population covariance matrix if it were available?” The RMSEA’s value of less than 0.05
indicates a good fit for our model. The Expected Cross Validation Index (ECVI) assesses whether a model is likely to repeat itself across samples of the same size in the same population. In practice, the model’s ECVI is used in conjunction with the ECVIs of the independence and saturated model.

A hypothesized model can be considered as falling between these two extremes and its ECVI is expected to be lower than the ECVI of the independence model but higher than the one of the saturated model, as is the case here. The standardized Root Mean square Residual (RMR) is a summary index of the standardized residuals and a value below 0.05 is considered as indicating acceptable fit. The Goodness of Fit Index (GFI) is an indicator of the amount of variance and covariance accounted for by the model and a value exceeding 0.90 is considered as reflecting acceptable fit. Last but not least the Comparative Fit Index (CFI) is based on the non-centrality parameter and a value exceeding 0.90 is an indication of good fit (Diamantopoulos and Siguaw, 2000; Tsoukatos and Rand, 2006).

Table 1 contains a summary of the model’s fit statistics, as produced by LISREL 8.8. The combination of their values shows that the hypothesized model unquestionably fits the available data.

### CONCLUSION

The research results are important in the process of banking managers’ decision making because they intend to enhance the rate of customer preservation and attract new customers. The findings of Cronin and Taylor (1992) and other researchers (Parasuraman et al., 1988; Reichheld and Sasser, 1990; Anderson and Sullivan, 1993) regarding the causal relations among service quality, satisfaction and loyalty in Iranian banking are confirmed. Based on the research results, the path of service quality ends customer satisfaction and ultimately loyalty is created.

Most of the literature on the relations among service quality, customer satisfaction and loyalty refer to the general relations among these constructs. There is a path from service quality towards customer satisfaction. However, not all of the dimensions of service quality are effect customer satisfaction equally. Regarding Iranian banking, the effect of the tangible dimension is not significant. The reason may be the intangibility of other dimensions of banking services’ quality. The studies have shown that as much as the services are more intangible, the expectations of customers to achieve the intangible components of those services grow as well (Bebko, 2000).

In this study, the relationship of customer satisfaction and loyalty is also emphasized. The result that customer satisfaction does not directly affect behavioral loyalty proves the finding of Athanassopoulos et al. (2001) to some extent. This matter helps us to understand how customers with different cultures perceive service quality and how they link it to satisfaction and loyalty (Furrer et al., 2000). The limitation which the study faces is testing the relevance of this model in other service sectors. The available sampling is another limitation for the study, whereas the available sampling is very common in the studies on service quality and customer satisfaction.

### REFERENCES


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<th>Table 1: Estimated model’s test statistics</th>
<th>Fit indices</th>
<th>Value</th>
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<tr>
<td>Degrees of freedom</td>
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<tr>
<td>Satorra-bentler scaled chi-square</td>
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<td>Chi-square corrected for non-normality</td>
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<td>RMSEA</td>
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<td>ECVI</td>
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<td>ECVI for saturated model</td>
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<td>ECVI for independence model</td>
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<td>CFI</td>
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