A Study of the Relationship between Banking Service Quality and Customer Satisfaction in Algerian Public Banks

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Abstract: The aim of this paper is to study the variables that may affect customer satisfaction in banking sector (banking service quality, financial benefits and social bonding), and investigate the empirical relationship between them through its impacts on perceived value as an intermediate variable. For this purpose, we apply a Structural Equation Modeling (SEM) technique to study the different relationships between the proposed variables. A questionnaire is, then, developed and administered to a sample of 650 Algerian public bank customers in the Tlemcen region. The results confirm the existence of a positive indirect impact of banking service quality, financial benefits and Social bonding on customer satisfaction. The estimation results show that customer satisfaction is a pertinent factor in the assessment of the overall banking service performance and quality, and can, as such, be transformed into measurable quantitative data.

Keywords: banking service quality, financial benefits, social bonding, perceived value, customer satisfaction.

1. Introduction

Consumers all over the world have become consciously qualified; consequently, customer’s requirements for higher quality service have increased substantially (Lee, 2005). Service sector such as the banks are urged to provide excellent services to their customers in order to gain sustainable competitive advantage (Niveen El Saghier, Demyana Nathan, 2013). In terms of growth of international economy, and fast development of Algerian private banking sector, public banks should adopt quality management programs to improve the quality of their products (Bitner,Booms, and Tetreault 1990, IIF Maghreb Banks 2010, Gilalinina, Danesh, and Shahmohammadi 2012). It has been proven that quality has a direct impact on product performance, and thus on customer satisfaction. From operations management view, it is obvious that customers satisfaction play important roles in the banking process [4]. According to (Kotler and Keller 2009) total product quality provided by the banking system depends on the customers’ feedback and satisfaction as a result of what they get from the banks such as services encounter, financial benefits, social bonding... etc. Therefore, higher levels of quality leads to higher levels of customer satisfaction[5]. Also, and conversely, having satisfied the customers becomes an evidence on the existence of a good level of banking product quality as tested by past studies on the relationship between customer satisfaction and quality[6]. (Cronin and Taylor 1992, Berry1995, Zeithaml 2000,Caruana 2002,Wilson2008, levy 2009).

The purpose of this study is to review the recent literature dealing with all dimensions used in this research, and investigate the nature of the relationships between banking service quality, financial benefits, and social bonds from one side, and customer satisfaction from the other side through its impacts on perceived value as an intermediate variable. It also aims at studying the evaluative role of customer satisfaction on service quality and its supporting proposed variables (financial benefit and social bonding). This paper structured as follows into three sections. The 1st section provides an overview of the literature dealing with banking service quality, financial benefits, social bonding, perceived value, customer satisfaction, and on the proposed relationships between the variables under study. The 2nd Section highlights the methodology of the study and the research framework. Finally, the 3rd section reports the validity and reliability of the results.

2. Literature Review

2.1. Banking service quality

Over the last 25 years, a rich literature has examined the concept of service and recognized the service quality as one of the most popular area of academic research and a pertinent competitive advantage as well as a tool for supporting satisfying relationships with customers (Zeithmal, 2000). Service quality is a concept that has aroused substantial interest in many studies. However, there are some difficulties in defining and measuring it so that there remains no overall consensus emerging on either parts (Wisniewski, 2001). The Service quality can be defined as “a global judgment or attitude relating to a particular service” (Fogli 2006), also (Munusamy, Chellial and Mun 2010) define it as:” the customer’s overall impression and cognitive judgment of the relative inferiority or superiority of the organization and its services” or as: “the difference between customer’s expectations for the service and the perceptions of the service received” [9]. (Caruana A 2002) holds that service quality is the result of the comparison that customers make between their expectations about a service and their perception of the way the service has been performed”[10]. According to (Oliver, 1980), it is predicted that customers will judge that quality as ‘low’ if performance does not meet their expectations and quality, and as ‘high’ when...
performance exceeds expectations. Closing this gap might require toning down the expectations or heightening the perception of what has actually been received by the customer[11]. During the past two decades, service quality in banking industry has become a major area of attention to practitioners, managers and researchers because of its strong impact on business performance, lower costs, return on investment, customer satisfaction, customer loyalty and gaining higher profit (Leonard and Sasser, 1982; Cronin and Taylor. 1992; Gammie, 1992; Hallowell, 1996; Chang and Chen, 1998; Gumnesson, 1998; Lasser et al., 2000; Newman, 2001; Sureshchander et al., 2002; Seth and Deshmukh, 2005).

In 1988, Parasuraman, Berry and Zeithaml proposed an instrument for measuring service quality, known as SERVQUAL, by reducing their dimensions from ten to five. The applicability of the SERVQUAL measure is well established in the retail banking industry[12]. (Angur et al 1999) stated that SERVQUAL is the best measure of service quality in the retail banking industry [13]. Others use the modified SERVQUAL measure in the retail banking industry as Bank Service Quality (BSQ) model developed by Bahia and Nantel (2000), that comprises six dimensions (effectiveness and assurance, access, price, tangibles, service portfolio, reliability) [14]. Kazi (2011) found that all the dimensions of service banking quality are not equally important in explaining variance in overall service quality. Zaim et al (2010) find out that tangibility, reliability and empathy are important factors for customer satisfaction. Kumar et al. (2010) and Lai (2004) consider that assurance, empathy and tangibles are important factors [15]-[16].

2.2. Financial benefits

In a broader view, Smith (1998) proposed that financial benefits are as functional bonding in business to customer context. He described it as: "the multiplicity of economic instrumental ties that serve to promote continuity in a relationship"[17]. Berry (1995) Confirmed that the financial benefit is the cornerstone in continuation of dealing between the organization and customer. Lin and al (2003) believe that customer financial benefits can be created through special price offers for example: banks may offer higher interest rates for long-duration accounts, reductions, discounts, free services, credit facilities...etc [18].And for other researchers financial benefit is a total financial benefits expected by the client obtained by dealing with the bank. According to Berry (1995; Palmatier, Scheer, Houston, Evans and Gopalakrishna 2007) Financial benefit refers to the provision of direct economic benefits in exchange for past or future customer loyalty, including special discounts, free products to generate incremental sales, and other incentives that easily may be converted to cost savings. Researchers have argued that one motivation for customers to engage in relational exchanges is to save money (Peterson, 1995). Financial benefit enhances customer satisfaction through special price offers or other financial incentives to customers (Berry, 1995; Hsieh, Chiu, & Chiang, 2005)[19].

2.3. Social bonding

Social bonding between customers and employees is defined by (Wilson 1995) as: “the degree of mutual personal friendship and liking shared by the buyer and seller”. Perry et al (2002) defined social bonding as: “investments of time and energy that produce positive interpersonal relationships between the partners’ in the context of business services[19]. Thunman (1992), Rodriguez and Wilson( 2002) pointed that social bonding refers to the human side of the business service, including personal contacts, familiarity, friendship and personal confidence that are built through the exchange process liking [20]. Social interaction can also be derived from customer-to-customer interactions and friendships in addition to customer provider interactions (Zeithaml and Bitner, 1996) [21]. According to Surprenant and Solomon (1987) Social bonding is defined as "the dyadic interaction between a customer and service provider". Social bondings are personal ties that pertain to service dimensions, offer interpersonal interactions, friendships, and identifications (Berry 1995, Hsieh et al 2005). Marketers at this level always stress staying in touch with their customers, and expressing their friendship, rapport and social support. Hence, social bonding strategy provides psychosocial benefits to the customer (Beatty, Mayer, Coleman, Reynolds, and Lee, 1996; Williams et al 1998, Chiu et al 2005, Su-Wen Chen 2013).This study follows (Wilson’s 1995, Thunman 1992 , Rodriguez and Wilson 2002) definitions and limits the concept of social bonds to friendship and liking between personnel of banks and customers.

2.4. Perceived value

Value is the benefit that the customer perceives and gets from the sacrifices (Zeithaml 1988). It involves a comparison between money paid and benefit or quality received. Expanding on the value consists of a mental comparison or trade-off between benefits and costs. Recent studies have put their focus on the importance of competitive alternatives as perceived value (Anderson and Narus, 1998; Liu, 2006) Su-Wen Chen 2013. According to Velampy and Sivesan (2012), customer perceived value is a very significant concept in management, however, many scholars deal with this concept in different ways. Zeithaml, Parasuraman and Berry (1991) have defined customer perceived value as:” customer overall assessment of the utility of a product based on a perception of what is received and what is given”[22]. For Gronroos (1982), perceived quality of a given service is the result of an evaluation process since consumers often make comparison between the services they expect with perceptions of the services that they receive; he concluded that perceived value of any service depends on two variables: Expected service and Perceived service [23]. Zeithaml (1988) also stated that perceived value can be conceptualized as “a tradeoff between benefits and sacrifices” [24].

2.5. Customer Satisfaction

The Literature establishes that customer satisfaction is a key to long-term business success (Zeithaml et al., 1996). While the literature encompasses significant differences in the definition of satisfaction (Giese and Cote 2002), it remains
However, that all of them share some common elements. When examined as a whole, three general components can be identified: i) consumer satisfaction is a response (emotional or cognitive); ii) the response pertains to a particular focus (expectations, product, consumption experience, etc.); and iii) the response occurs at a particular time (after consumption, after choice, based on accumulated experience, etc.). Consumer responses followed a general pattern similar to the literature. Satisfaction is comprised of three basic components. First, a response pertaining to a particular focus is determined at a particular time[25]. Second, according to (Kumar, Junae and Hanaysha 2012) customer satisfaction is defined by (Johnson and Fornell 1991) as: “a customer’s overall evaluation of the performance of an offering”. Also it is defined by (Woodruff, 1997) as: “an overall positive or negative feeling about the net value of services received from a supplier”[15]. Third, David and Baker (2013) defined customer satisfaction as: “an emotional reaction to the difference between what customers anticipate and what they receive”.

2.6 Relationship between banking service quality, financial benefits, social bonding and customer satisfaction

The impact of service quality on satisfaction is the most popular subject of studies. Service quality and customer satisfaction have been proved from past research to be positively related (Parasuraman et al 1988; Cronin and Taylor 1992, Jamal and Naser 2003, Kuo 2003, Lee and Hwan, 2005, Balaji, 2009, Naem and Saif 2009, Bedi 2010, Kassim and Abdullah 2010, Kumar et al., 2010; Gera 2011). Most of the researchers found that service quality is the antecedent of customer satisfaction to achieve a high level of customer satisfaction (Cronin and Taylor 1992, Anderson et al, 1994, Cronin Brady and Hult 2000, David et al 2013).

Rust and Oliver (1994) maintained that quality was only one of many dimensions on which customer satisfaction was based[27], whilst according to (Zeithaml & Bitner, 2001) 28, satisfaction is determined by the perception of service quality, product quality, price, situation factors, personal factors and financial factors. In this context, Levesque and McDougall (1996) found that a good “employee-customer” social relationship can increase the satisfaction level. Cater B (2008) point out as well in her study that social contacts between buyer’s and seller’s staff are the most important source of information and it helps to build customer satisfaction (Wetzels et al 2000) [29]. Some authors have argued that financial benefits can enhance customer satisfaction by delivering economic benefits for customer “money savings”. (Berry 1995, Gwinner Grembler and Bitner 1998, Peterson 1995, Peltier and Westfall 2000, Lin et al 2003) mentioned that service providers may reward satisfied customers with special price offers. For example, banks may offer higher interest rates for long-duration accounts. Extended research in this area reveals a possible explanation that the satisfaction construct supposes an evaluative judgment of the value received by the customer from perceived service quality, financial value and social relationships value. Thus, it is likely that perceptions of high benefit of financial benefits (e.g., special discounts or rewarding) and social bonding (e.g., long-term interactions) offered by an online store may increase customers’ perception of value. In a marketing relationship study (Chiu et al 2005), research findings show that customer’s experience with financial benefits and social bonding influence their value perception. In the banking industry, a key element of customer satisfaction is the nature of the relationship between the customer and the provider of the products and services (Niveen El Saghier, Demyana Nathan, 2013). Caruana et al (2002) found that these factors are positively correlated with perceived value. Ismail A and Norashyikin (2009) argued that the relationship between (service quality, financial benefit, social bonds) and customer satisfaction is strongly moderated by perceived value[29]. Based on this entire framework, this study hypothesizes that:

H1: There is a positive relationship between banking service quality and Perceived value.
H2: There is a positive relationship between financial benefit and Perceived value.
H3: There is a positive relationship between social bonds and Perceived value.
H4: There is a positive relationship between Perceived value and customer satisfaction.

2.7. Evaluative role of customer satisfaction

Giese and Cote (2000) identify that customer satisfaction, as one kind of response (cognitive or emotional), emphasises on a particular focus (product, consumption experience, expectations etc) and occurs at a particular time (after choice, based on accumulated experience, after consumption) (kazi.O.S 2012). Many theories have used customers satisfaction “as judgments of a product or service that can, in turn, be measured by assessing customer evaluation of a performance on specific attributes.” (Gunderson et al 1996). Service management literature argues that customer satisfaction is the result of a customer’s overall quality received in a transaction or a relationship (Blanchard and Galloway 1994, Heskett et al 1990, A.Y.-L. Su 2004). From this view, Levy (2009) suggested a survey where customer satisfaction can be transformed into measurable quantitative data. Since customer satisfaction has been considered to be based on customer’s experience on a particular service encounter (Cronin & Taylor 1992), it is in line with the fact that service quality is a determinant of customer satisfaction, because service quality comes from the outcome of the service providers in organizations (Arokiasamy and GhaniKanesanbin 2013).

According to (Arokiasamy and GhaniKanesanbin 2013) some author presented a situation that customer satisfaction is a focused evaluation that reflects the customer’s perception of what a product provides (Wilson 2008). This goes in line with the idea of (Parasuraman 1995) who acknowledged that “Customer satisfaction is based up on the level of service quality that is provided by the service providers” (Saravana and Rao 2007, Lee et al 2000) [26].Regarding the relationship between customer satisfaction and service quality, Oliver (1993) suggested that service quality would be antecedent to customer satisfaction regardless of whether these constructs are cumulative or
transaction-specific[8]. Some researchers have found some empirical supports for this view (Anderson & Sullivan, 1993; Fornell et al 1996; Spreng & Macky 1996), where customer satisfaction comes as a result of service quality. So, based on the existing literature, this paper hypothesizes furthermore that:

H5: There is a significant evaluative role of customer satisfaction towards banking service quality.
H6: There is a significant evaluative role of customer satisfaction towards financial benefit.
H7: There is a significant evaluative role of customer satisfaction towards social bonding.

3. Material and Methods

3.1. Methodology of Study

Structural Equation Modeling (SEM) techniques are used to perform statistical analysis of the data collected from the survey such as exploratory/confirmatory factor analysis and construct validity and reliability test of measurement. The structural model is then tested and confirmed[33]. The Statistical Package for the Social Sciences (SPSS 19.0) and (AMOS 20.0) are used to analyze the preliminary data, provide descriptive analyses about the sample and testing hypotheses.

3.2. Data Collection

The methodology used a survey about bank customer satisfaction on a sample of 650 Algerian public bank consumers in the region of Tlemcen. The questionnaire is design and distributed through a stratified probability sampling as shown in Fig 1.

3.3. Research Framework

The present paper sets a conceptual framework shown in (Fig. 2)

3.4. The size of the sample

As it was mentioned before, the sample for this study is selected from the retail bank customers in Tlemcen. Anderson et al (1998) suggest that the sample size of 100-200 is adequate for the structural equation modeling. The size of the sample in this study is 650 customers.

3.5. Questionnaire Development

An instrument/questionnaire is used to collect data. This questionnaire consists of two sections A and B. Section A consists of 34 items to evaluate five (5) dimensions:

- Banking service quality delivery is measured with 18 items. In this study, banking service quality (SQ) delivery dimensions include: responsiveness; empathy; reliability; assurance; tangibles. These items are adapted from (Snoj and Korda 2010, Shank.M.S.2012, Chen and Liu 2013)
- The second dimensions which consists of 5 items that measure financial benefits (FB), were adapted from (Blomer et al 1998; Lin, Weng and Hsieh 2003; Shammout.2007; Neringa et al 2012)
- The third dimensions that measure social bonds (SB) contains 4 items adapted from (Lin, Weng and Hsieh 2003; Gounaris.P 2005; Shammout 2007; Auruskeviciene et al 2010)
- The fourth dimensions which is “perceived value (PV)” is measured by 4 items adapted from ( Raig et al 2009; Snoj and Korda 2010; Neringa et al 2012 )
- The fifth dimension, “customer satisfaction (CS)” is contains 3 items which are adapted from (Snoj and Korda 2010).

Sections B consists of personal identifications such as gender, status, age, education, bank name, and length of time as a bank customer. This study used seven-point likert scales from “strongly disagree” to “strongly agree”.

4. Results

In the following sections, we first report the validity and reliability of the instruments. Then the goodness fit of model, and finely the hypotheses testing.
4.1 The validity and reliability of the instruments

The validity and reliability analyses are conducted on the basis of the steps established by Hair et al. (1998), and Nunally and Berstein (1994). A principal component factor analysis with rotation is used to determine the possible dimensions of the constructs. Further, the Kaiser-Mayer-Olkin Test (KMO) which is a measure of sampling adequacy, is conducted for each variable and the results indicates that it is acceptable. The internal reliability of the items is verified by computing the cronbach’s alpha and indicates that it is acceptable. The internal reliability of the items exceeds the minimum acceptable level of 0.60. The result of these tests are shown in table 1 and 2.

The original questionnaire covers 34 items which are related to five variables: banking service quality (18 items), financial benefits (5 items), social bonds (4 items), perceived value (4 items) and customer satisfaction (3 items). As a result, the factor analysis is conducted to condense the 34 items to 29 items by eliminating the items that have communality values less than 0.40 as (SQ15, QS16, FB2, and SB3). Also, Cronbach’s alpha estimated for five (5) dimensions is between 0.657 and 0.959, but the item eliminated in this step is (QS18). Split-half value for each of the two parts is 0.942 and 0.921 respectively. Spearman-Brown and Guttman Split-Half Coefficients are higher than minimum acceptable level (0.80). In addition, we find that KMO values are between 0.665 and 0.790 (Greater than .60) which is a good indicator for the safety of items. Hence, we can say that the reliability of the questionnaire has a moderately good level.

Table 1: Results of Validity and Reliability Analyses

<table>
<thead>
<tr>
<th>Measures</th>
<th>Communality</th>
<th>KMO</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Quality</td>
<td>0.465 – 0.969</td>
<td>0.790</td>
<td>0.932</td>
</tr>
<tr>
<td>Financial Benefit</td>
<td>0.562 – 0.900</td>
<td>0.665</td>
<td>0.857</td>
</tr>
<tr>
<td>Social Bonds</td>
<td>0.519 – 0.610</td>
<td>0.676</td>
<td>0.788</td>
</tr>
<tr>
<td>Perceived Value</td>
<td>0.513 – 0.720</td>
<td>0.752</td>
<td>0.787</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>0.878 – 0.952</td>
<td>0.719</td>
<td>0.959</td>
</tr>
</tbody>
</table>

Table 2: Split-half test

<table>
<thead>
<tr>
<th></th>
<th>Part 1</th>
<th>Part 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach’s alpha</td>
<td>0.910</td>
<td></td>
</tr>
<tr>
<td>Guttman Split-Half Coefficient</td>
<td>0.921</td>
<td></td>
</tr>
</tbody>
</table>

a. The items are: QS1, QS2, QS3, QS4, QS5, QS6, QS7, QS8, QS9, QS10, QS11, QS12, QS13, QS14, QS17, QS18.
b. The items are: FB1, FB3, FB4, FB5, SB1, SB2, SB4, PV1, PV2, PV3, PV4, CS1, CS2, CS3.

The fit indices, standardized path coefficients, and explained variances are reported in table 3. The chi-square value is 643.68 (df = 216, p = .000; Chi²/df = 2.98). Chi-square, however, is only recommended with moderate samples e.g. 100 to 200 (Hu and Bentler, 1999), as with larger sample sizes, as in this case, trivial differences become significant. Hence, other global fit indices are used to test model fit. All other fit indices show good model fit: The root mean square error of approximation (RMSEA) is 0.052, the goodness-of-fit index (GFI) is 0.941, the adjusted goodness-of-fit index (AGFI) is 0.923; the Tucker-Lewis index (TLI) is 0.913 and the comparative fit index (CFI) is 0.978. Thus, it can be concluded that the model fits the data reasonably well (Hu and Bentler 1999).

Table 3: Model fit indices

<table>
<thead>
<tr>
<th>Fit indices</th>
<th>Absolute Fit Indices</th>
<th>Incremental Fit Indices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi²</td>
<td>643.68</td>
<td>RMSEA 0.052</td>
</tr>
<tr>
<td>df</td>
<td>216</td>
<td>GFI 0.921</td>
</tr>
<tr>
<td>(Chi²)/df</td>
<td>2.98</td>
<td>AGFI 0.903</td>
</tr>
<tr>
<td>P-Level (p&lt;.000)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2 Path Coefficient and Hypothesis Testing

Table 4 illustrates the results of the proposed hypotheses testing. In order to test the path analysis and the hypotheses, we used a structural equation modeling to determine the significant t-value and paths coefficients (β). The findings show that banking service quality, financial benefit and social bonding are positively related to customer satisfaction through perceived value with statistical evidence (positive β and t-value >1.96), however, while service quality has strong influence on perceived value, social bonding has a less positive effect. Also perceived value has a big positive relationship with customer satisfaction. Hence, H1, H2, H3 and H4 are significant, which confirms the correctness of the existence of a causal relationship between (banking service quality, financial benefit, social bonding) and customer satisfaction. Also, the results show that customer satisfaction plays an important evaluative role towards banking service quality in the first place, whilst social bonding, financial benefits are in the second and third places respectively.

Table 4: Standardized parameter estimates of the hypothesis paths

<table>
<thead>
<tr>
<th>Path</th>
<th>Coefficient</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking service quality → Perceived value</td>
<td>.978</td>
<td>significant</td>
</tr>
<tr>
<td>Financial benefit → Perceived value</td>
<td>.802</td>
<td>significant</td>
</tr>
<tr>
<td>Social Bondings → Perceived value</td>
<td>.439</td>
<td>significant</td>
</tr>
<tr>
<td>Perceived value → Customer satisfaction</td>
<td>.936</td>
<td>significant</td>
</tr>
<tr>
<td>Customer satisfaction → Banking service quality</td>
<td>.820</td>
<td>significant</td>
</tr>
<tr>
<td>Customer satisfaction → Financial benefit</td>
<td>.713</td>
<td>significant</td>
</tr>
<tr>
<td>Customer satisfaction → Social Bondings</td>
<td>.742</td>
<td>significant</td>
</tr>
</tbody>
</table>

Note: Significant at P<0.05

4.3 Discussion and Conclusion

The present study concludes that banking service quality had a positive impact on customer perceived value and satisfaction. This finding is not new, because this relationship has already been explored by many authors including (Balaji, 2009, Naeem and Saif 2009, Bedi 2010, Kassim and Abdullah 2010). How Customers need more than service banking quality in order to be fully satisfied has been the object of this study that explores also the introduction of financial benefit and social bonding as new dimensions in overall banking product quality, which is very rare in banking service literature, particularly in Algeria. More researches in banking sector are required to prove the importance of these two dimensions to build customer perceived value which are functional dimensions related to monetary and symbolic values that fit social and emotional
values (Lin et al. 2003, Cater B 2008, Berry 1995). Moreover, we find out the importance of perceived value that has a positive relationship with satisfaction and thus can be a good moderator between each of banking service quality, financial benefit, social bonding and customer satisfaction. These results confirm the research of (Chen 2009).

This research considers that customer satisfaction can be used as an evaluative tool of banking product quality and performance. This evaluative role helps banks: i) to identify deficiencies perceived by the customer, ii) and improve the quality of its services in order reduce the gap between customer expectations and actual performance. This view has been supported by several other studies (Cronin & Taylor 1992; Anderson and Sullivan 1993; Fornell et al 1996; Spreng and Macky 1996, Giese and Cote 2000, Levy 2009; Arokiasamy and Ghaniquesanbin 2013).

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