

Anjum, Muhammad Naeem; Xiuchun, Bi; Abbas, Jaffar; Shuguang, Zhang

Article

Analyzing predictors of customer satisfaction and assessment of retail banking problems in Pakistan

Cogent Business & Management

Provided in Cooperation with:

Taylor & Francis Group

Suggested Citation: Anjum, Muhammad Naeem; Xiuchun, Bi; Abbas, Jaffar; Shuguang, Zhang (2017) : Analyzing predictors of customer satisfaction and assessment of retail banking problems in Pakistan, Cogent Business & Management, ISSN 2331-1975, Taylor & Francis, Abingdon, Vol. 4, <https://doi.org/10.1080/23311975.2017.1338842>

This Version is available at:

<https://hdl.handle.net/10419/205981>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>



Received: 27 February 2017
Accepted: 02 June 2017
Published: 26 June 2017

*Corresponding author: Muhammad Naeem Anjum, Department of Business and Administrative Studies, University of Sargodha Sub-Campus Bhakkar, Bhakkar, Pakistan; Department of Statistics and Finance, School of Management, University of Science and Technology of China, Hefei 230026, Anhui, P.R. China
E-mail: naeem_anjum@uos.edu.pk

Reviewing editor:
David McMillan, University of Stirling, UK

Additional information is available at
the end of the article

BANKING & FINANCE | RESEARCH ARTICLE

Analyzing predictors of customer satisfaction and assessment of retail banking problems in Pakistan

Muhammad Naeem Anjum^{1,2*}, Bi Xiuchun², Jaffar Abbas³ and Zhang Shuguang²

Abstract: The current study has tried to explore the types of services provided by Pakistan. A total of 1,089 bank customers affiliated with eight major banks across four major cities were interviewed through specified questionnaire. The gender wise distribution is 87% males and 13% female of the interviewed, individuals; while account type-based distribution is 24% business account, 37% salary account, and 39% general account holders. Regression analysis showed that customer satisfaction was governed by multiple significant predictors which include bank staff behavior ($\beta = 0.18, p < 0.001$), guidance inside bank ($\beta = 0.04, p < 0.01$), variety in service products ($\beta = 0.03, p < 0.05$), access to account statements ($\beta = 0.11, p < 0.001$), availability of cash ($\beta = 0.11, p < 0.001$) in ATM, and knowledge of bank staff ($\beta = 0.40, p < 0.001$). It is concluded that the retail banking in Pakistan has enormous room to capture more customers provided that private and public sector banks should invest more in infrastructure development along with the provision of swift banking services to their customers.

ABOUT THE AUTHORS

Muhammad Naeem Anjum has done PhD in Management Sciences and Engineering at University of Science and Technology of China (USTC). Now, Anjum working as an assistant professor department of business and administrative studies at University of Sargodha, Sub-Campus Bhakkar, Pakistan. Anjum's interest area includes service quality, customer satisfaction, customer loyalty, and banking industry in Pakistan.

The current study has tried to explore the types of services provided by Pakistani banks. This will help identify the customers' expectations, the banks' targets, the actual performance, and the quality of banking services in Pakistan. This mechanism will help banks meet customers' expectations, get their feedback, and update their services in accordance with the customers and market demands. Banks are considered as backbone of any financial system; therefore, it is imperative to study the banks services and the customers' perceptions. In this regard, this study is rightly contributing to the banking literature, customers' satisfaction, and the growth of financial system.

PUBLIC INTEREST STATEMENT

The contemporary banking system provides multifaceted services to diverse customers. On one side, it strives to spread the branches and branchless networks to those corners which are easily accessible to different customers, and on the other side it considerably targets the services quality and its in-time provision to increase their customers. Customers' satisfaction is the main motive of business organizations. Customers expect to receive efficient, trustworthy, and in-time services from the modern banks. They will show their loyalty and long-term relationship with banks if they are satisfied from the bank services. In case of poor services provision, banks will surely lose their customers. Therefore, it is the major concern and focus of modern banks to uphold the customers' positive perception through rendering them qualitative services. All the public sector and private sector banks constantly try to develop a comprehensive mechanism for providing well-satisfactory services in most convenient, safe, and refined way.

Subjects: Macroeconomics; Microeconomics; International Economics; Public Finance; Banking; Business, Management and Accounting; Services Marketing; Consumer Behaviour; Public Relations; Relationship Marketing

Keywords: customer satisfaction; service; quality; bank services; assessment; retail banking; Pakistan

1. Introduction

Banks are the institutions involved in the wealth management. Individuals prefer the banking services in order to fairly and swiftly fulfill their personal- and business-related flow of capital. Banking affairs have become advanced and swift because of extensive branch operations. Selection of bank for running an account depends on various factors. The attraction of the customer towards a particular bank depends on the quality of services which a bank provides (Cronin, Brady, & Hult, 2000). First impression being the last impression, at the first visit to a bank, the customer needs guidance from bank staff in order to select the correct operational counter to avail services of the bank (Ehigie, 2006). At this defining moment, if the staff behavior and knowledge, seating arrangements, introduction about banking products and related services are not properly provided, the customer becomes disappointed of that bank. He/she will probably hesitate to do further business with that bank. It has been observed that relationship has a great influence on customer satisfaction (Ken Butcher; Anderson & Mittal, 2000). Provision of best quality services is therefore important for customer's satisfaction which will eventually lead to increase in the number of customers and business. A high level of satisfaction among customers is the most dominant factor considered for the success of a business. Satisfied customers are usually loyal and in the future can make a permanent cash-flow for the business. Studies show that increase in customer loyalty rate by 5% can lead to profit increase of a business by 100% (Reichheld & Sasser, 1990) owing to the reality that the permanent customers try to purchase the company's product frequently in larger quantities. Satisfied customers are also not much price-savvy and are more likely to purchase the tested products.

In the World, customer's shifted on e-banking but in Pakistan many customer's are used branch banking because mostly are not well educated. As 70% of the population live in backward areas. customer face many problems regarding services provided by banks. Our predictors staff behavior, seating facility, transaction time, complain handling, cash available in ATM, guidance services, and staff knowledge are related to branch banking. That's why we choose our research area service quality, customer satisfaction in Pakistani banking sector. Sub-prime loaning and lending money, process of lending and borrowing money is less convenient and complex. The trend of nationalization and privatization in the financial industry are also challenges to the banking industry.

A satisfied bank customer will obviously refer other people to that bank, which will increase the number of customers and bank's business. The bank-customer relationship is other name of this business, hence the customer satisfaction matters because customer is at the receiving end.

1.1. Customer satisfaction (CS)

For success of business, CS is as important as blood in a body (Mägi & Julander, 1996). Every bank or organization aim to outperform competitors by providing best quality services, because it ensures customer pleasure and satisfaction (Wallin Andreassen & Lindestad, 1998). Satisfaction is defined as happiness of customers which demonstrate best services for customers (Kotler & Armstrong, 2010). Keeping intact existing customers and attracting new ones is crucial for any bank (Cronin et al., 2000; Sivadas & Baker-Prewitt, 2000). Ability to meet customer's requirements and expectations is a key parameter to evaluate bank services (Matzler & Sauerwein, 2002). Overall satisfaction is the output of customers' evaluation of a set of experiences that are related with special services provided by the bank (Barrutia & Echebarria, 2005). If the bank customers are satisfied with the services of the bank, customers will be loyal to it (Ganguli & Roy, 2011), which is a positive sign for the bank business as it leads to higher profit, extension of business as well as increased number of customers (Kim, Jung, Suh, & Hwang, 2006). For banks, CS is extremely important and a determining factor to assess bank's competitiveness (Berger & DeYoung, 1997).

To achieve this goal, a company must provide a supreme satisfaction rate for its customers. The increasing customer satisfaction, whether for non-profit and profit purposes, compels the companies to pay more attention toward customer satisfaction (Chi & Gursay, 2009). Banking industry provides services to its customers and basic banking depends on these services (Mittal, Ross, & Baldasare, 1998). Thus from the very beginning, banking industry understands the importance of customer satisfaction (Oliver, 1980). Banking industry can attain customer evaluation or customer satisfaction feedback which can help to make out the nuisance of business partners. The companies that consider customer satisfaction as a significant gage stick will be successful to bring increased profit and market share (Adeoye & Lawanson, 2012; Farquhar & Panther, 2008). Owing to the increasing demand and interests in the customer's satisfaction, every company, including banks have been affected by this trend (Aghamirian & Dorri, 2015).

1.2. Factors affecting CS

There are several factors that banks usually take into account in order to attain customer's satisfaction. Ignoring these factors will often lead to cause dissatisfaction among customers and they become irritated. In worst case they stop doing business with the respective banks and shift to other banks (Anderson, Fornell, & Lehmann, 1994). Apparently, this seems a loss of single customer, but in fact that customer pulls out many other customers. Customer satisfaction is crucial for the success of all businesses. There is a relation between satisfaction measurement, attribute performance, and implicate theory of overall satisfaction (Busacca & Padula, 2005). In last two decades, several new banks have started their business in Pakistan. There is a growing competition among newly established banks and existing ones to attract as many customers as possible (Table 1). In doing so, almost all banks have adopted the strategy of expanding their networks to small and remote cities. Consequently, mushroom growth of bank branches has been observed in Pakistan. The branches located in small cities and rural areas are not equipped with experienced, fully trained, and efficient staff to fulfill the customer needs. This situation demands to identify and describe some of the important factors that are extremely relevant for customer satisfaction in banking sector of Pakistan (Figure 1). Some of these factors are briefly discussed as below.

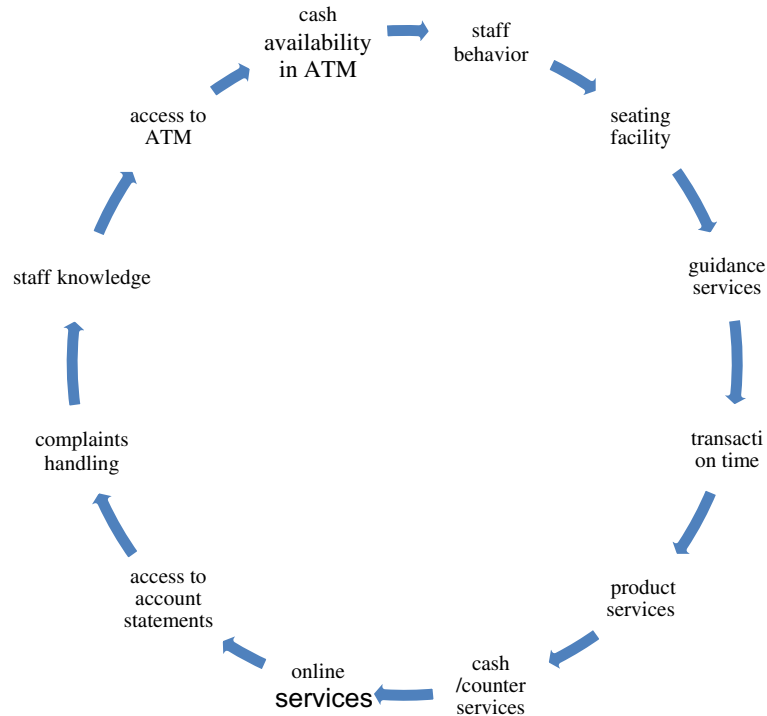
Behavior of staff contributes as a major factor for customer satisfaction. Sometimes, lack of required number of staff to carry out a task puts a lot of burden on the bank staff. This burden affects the work efficiency and communication leading to bad staff behavior (Gremler, Gwinner, & Brown, 2001). Lack of proper guidance to the customers also makes customer dissatisfied with the bank. For example, if a person wants a draft from the bank and (s)he doesn't know which form to fill out, which window to approach and what are the requirements to get the demand draft. This situation creates hindrance in provision of swift services leading to the customers' dissatisfaction.

The online banking is a tool to attract the customers because of offering 24/7 services needing not to visit the bank physically. Sometimes banks fail to deliver because of problems in the server and online link to the main branch. Delay in the transaction due to computer network breakdown often cause problems for banks as well as for customers.

Table 1. Customer distribution according to their respective banks (n = 1,089)

Bank's name	Customer frequency according to banks			
	Frequency	Percent	Valid percent	Cumulative percent
Habib Bank Limited	310	28.5	28.5	28.5
National Bank of Pakistan	248	22.8	22.8	51.2
Bank Al Habib	46	4.2	4.2	55.5
Bank Al Barka	60	5.5	5.5	61.0
Allied Bank Limited	137	12.6	12.6	73.6
Bank Alfalah	118	10.8	10.8	84.4
Bank of Punjab	48	4.4	4.4	88.8
Askari Bank Limited	122	11.2	11.2	100.0

Figure 1. Factors effecting customer satisfaction.



Though Automated Teller Machine (ATM) machines have been installed across all the bank branches but sometime those machines are out of cash especially during holidays and festivals. ATMs without cash or out of order machines contribute largely to customer dissatisfaction (Al-Hawari & Ward, 2006). Importance of the current research is lack of trust, lack of awareness, and readiness on satisfaction side. Customer as strategic partner, long term, key stakeholder, part of value-chain. “A nation whose industry generates high levels of customer satisfaction is probably better protected against cost increases as well as foreign competition” (Fornell, 1992).

ATM machines are very user friendly (Manrai & Manrai, 2007) but due to the above-mentioned problems, customers still use cheques to get cash. Banks take few days to issue the cheque books, which poses a problem to the new customer. Same is the case with the issuance of ATM cards for which the customer normally has to wait for a week. Complaints handling in sluggish way turn customers to be infuriated and dissatisfied.

It has been reported in numerous studies that the banks have paid less attention in developing close relationship with their retail customers (Matzler & Sauerwein, 2002).

1.3. The Pakistan banking sector issue

The banking sector in Pakistan is confronted with many challenges since 1947, when the country gained its independence. Liberalization of market during the first decade of twenty-first century and the decision of privatizing banks opened the gateway for the economy of Pakistan and also resulted in banking reforms. As the market is changing rapidly, thus similar to other financial sectors, the banking industry is also facing many issues. Growing competition in the market, changing economic environment, and emerging customer’s demands have set multiple challenges for the banking sector (Johnson, Gustafsson, Andreassen, Lervik, & Cha, 2001). Pakistani banking industry, more or less, is dealing with similar issues. In this competitive situation, it is crucial for banks to retain an honest customer base. To achieve this, Pakistani banks have formulated their policies to ensure customer satisfactions (Bonaccorsi di Patti & Hardy, 2005). In the expert point of view, dissatisfaction of customers is a major cause for a customer to switch to other banks (Jamal & Naser, 2003).

Our aim of the study is the customer loyalty and satisfaction on the basis of “market offering” and “user experience”. List down the relevant independent variables to define the “customer satisfaction” in the regional perspective. No customized model for the region haven’t been developed or proposed.

2. Literature review

The satisfaction of customer defines easy and comfortable access to bank services, widely observed in the commercial and business sectors. CS is the company’s business to explain the products and services are provided to meet the needs of a term quality of its customers (Wu, Lin, & Tsai, 2009). The satisfied customers are the main elements of overall performance and prosperity of the business (He, Li, Gao, & Zhang, 2015). Companies having satisfactory returns have highly positive correlation with the strong base of customers (Fullerton, 2011). In the bank, customer prefers the quality of trade execution services provided by the institution. In order to maintain this competitive environment, CS is the key factor which can be achieved by continuously improving their quality of service (Kemal Avkiran, 1994). In order to maintain market share, the important requirements are to outperform competitors, which may be ensuring that product and service quality are appealing, by keeping the customers happy while having the bank transaction (Frank, Abulaiti, & Enkawa, 2014).

A large number of retail banks try to adopt such techniques to satisfy the customer (Banerjee, 2014). Satisfaction of customer depends on services and facilities of banks provided by bank (Al Khulaifi, Al Sulaiti, & Al Khatib, 2005). Especially, staff behavior is very important to make relationship with customer and bank. Eventually, this attitude proved to have a large impact on customer services betterment (Rust & Zahorik, 1993) such as average rate of customer deposit is actually profit of the bank in future (Baesens et al., 2004). This shows customer satisfaction and bank profit have strong correlation (Farquhar & Panther, 2008). Customers face basic problem in the bank, such as seating facility, time wastage, less service product, lack of guidance, and cash counter services related to operation work. Oppewal and Vriens (2000) worked on many factors related to CS and consumer problems. Some basic needs of a customer are not fulfilled in retail banking business. These are the problems of customer which affect CS (Grieco, Ieva, & Paganoni, 2012). Businessmen feel better as compared to salaried persons and other customers of the bank.

Homburg and Giering (2001) have presented many derivations of satisfaction of customers in different service institutes. Banks have the chance to not just improve their customer satisfaction but attain sustainable development and profitability by embark on a customer centric renovation (Yoon, 2010). Many researchers have emphasized the relation between satisfaction and good quality services construct (Matzler, Bailom, Hinterhuber, Renzl, & Pichler, 2004). Various researcher have worked on various dimensions of the banks services, but Matzler et al. (2006) have worked on five dimension of operational bank services.

Some researcher used SERVQUAL model (Athanasopoulos, Gounaris, & Stathakopoulos, 2001; Kheng, Mahamad, Ramayah, & Mosahab, 2010). In the expectancy model, the satisfaction of customer is crucial principle variable, while the core variables are used in the SERVQUAL target service. SERVQUAL differs in some fundamental aspects (Oh, 1999). Customer’s basic problems and customer’s unfulfilled requirements directly affected the customer’s satisfaction (Babakus & Boller, 1992).

Matzler et al. (2004) and Füller and Matzler (2008) used product and service attributes as three factor theory (basics, performance and excitements factors) of customer satisfaction.

Finally, researchers paid attention to the constructive role owing to having skills to handle the problems such as ability to avoid potential conflicts, competent and effective handling of criticism, effectiveness of resolving problems, and minimum time frame for restoring errors (McDonald & Rundle-Thiele, 2008). Cohen, Gan, Yong, and Chong (2007) reported ways to determine importance of the attributes in retail banking. In multiple regression, the classic indirect measures are the coefficients where the dependent variables are the grading of all performances (e.g. overall satisfaction

with bank) and the particular performance grading for every attribute are independent variables (Athanasopoulos et al., 2001). This would ignore any unbalanced relation between characteristic bank performance to the customer experience (Levesque & McDougall, 1996).

In view of competitive environment, banks need to plan their tactics that distinguish them from each other. To achieve this, high service quality is needed to deliver (Finazzi Santos & Porto, 2014). The price paid by banks to hold the customer satisfaction is fivefold less than the price paid to gain attention of new ones (Hallowell, 1996). Parasuraman, Zeithaml, and Berry (1994) studied that the loyalty of the customer does not depend upon a single factor, rather it comprises both negative and positive response. Therefore, it is not necessary that a loyal customer is also a satisfied one. Service quality, in the eye of a customer, is not consistent having disparity between the prospects and their own views about it (Hallowell, 1996; Siddiqi, 2011). Total Quality Management and New Public Management (NPM) are two quality control ideas which have been in place since 1990s in a large number of organizations of many developed countries. NPM's major objective is to enhance the service quality through customer's oriented approach (Cronin et al., 2000). In order to track the effectiveness of branches, Wu and Zhao (2006) incorporated neural networks (NN) and data envelopment analysis (DEA) to accomplish this task. As a benchmark to evaluate the performance of the branches, DEA technique had been in use and is being evolved as a tool to keep track of the performance in terms of profit and service quality (Anderson, Fornell, & Rust, 1997; Yeung & Azevedo, 2011).

Banking sector in Pakistan is striving hard to provide numerous facilities to their customers. However, with the growing competition between banks, multiple challenges have emerged for them to maintain high quality of services. In this context, the present study encompasses a wide range of challenging issues which Pakistani banks confront with in order to make their customers satisfied. The research effort has not only predicted key determining factors upon which customers satisfaction depends, but also has documented the extent to which customers are satisfied from the services offered by their banks.

We aimed to analyze problems of bank customers in a holistic way when they start retail banking. By taking into account commonly occurring issues in Pakistani banks, the research effort was used to predict factors upon which dissatisfaction of customers depends. Evaluation of branch banking was also carried out to assess their ability to fulfill the basic requirements of their customers. Finally, the consequent impact of branch-related services (such as staff behavior, time wastages, online services and service product) on customer satisfaction was investigated to identify weak areas where banks need to improve and bring customer satisfaction to a greater extent.

3. Methodology

Data acquisition was based on first-hand interviews, which were conducted in person from May to August 2014. The questionnaire items used for this research were comprised of customer problems which they routinely face and satisfaction level from bank services. Target subjects were retail banking customers from eight major banks of Pakistan. The respondents i.e. bank customers were affiliated with branches of eight banks distributed across four major cities of Pakistan i.e. Lahore, Faisalabad, Jhang, and Bhakkar. The survey was extended to some of the associated small towns where numerous branches of these banks were located. The sampling analogy was determined with a purpose to record the problem faced by all the three account holding categories i.e. salary, business, and general account holders (Others). The customer satisfaction, overall satisfaction with the bank, and relevant problems in usual retail banking were documented using a six-point scale. Initially 1,126 respondents were interviewed and their response was entered in a spreadsheet. Descriptive statistics was performed to check the frequencies. After excluding the items with missing values greater than 5%, only 1,089 responses were included in the final analysis.

Using six likert scale 12 predictors as independent variables in linear regression model, it has been tried to predict the problems of bank customers. Prior to that, data were subjected to verify whether

there exists any multicollinearity and upon cross-validation (Cronbach's alpha = 0.78) a subset of predictor variables was extracted for regression analysis.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_k X_k + \rho, k = 1, 2, \dots, 12 \quad (1)$$

where α is the intercept or overall mean where as coefficient or β represents slopes of the model, indicating the rate of change in dependent variable OSB upon unit change in independent variable X_1, X_2, \dots, X_k , and Y is the overall satisfaction with bank (from 1 to 12) expressed by the predictors X_1, X_2, \dots, X_k , showing the customers problem in banks.

To test the effects of variables between subjects such as gender and type of bank account by “how good the overall satisfaction with the bank” and indicators of retail banking problems, a two-way ANOVA (univariate general liner model) was performed. A graphical illustration was generated for each test to depict the interactive effect of subjects with fixed factor (indictors of retail banking problems) using “overall satisfaction with the bank” (OSB) as dependent variable.

$$\begin{aligned} \text{OSB} = & \text{Average} + \text{Cof}_1 \text{SB} + \text{Cof}_2 \text{SA} + \text{Cof}_3 \text{LG} + \text{Cof}_4 \text{TW} + \text{Cof}_5 \text{LSP} \\ & + \text{Cof}_6 \text{CCS} + \text{Cof}_7 \text{OS} + \text{Cof}_8 \text{EAATM} \\ & + \text{Cof}_9 \text{CAATM} + \text{Cof}_{10} \text{HC} + \text{Cof}_{11} \text{SK} + \text{Cof}_{12} \text{AAS} + \text{Error} \end{aligned} \quad (2)$$

OSB = Overall Satisfaction with bank, Average = Overall mean, SB = Staff Behavior, SA = Seating Arrangements, LG = Lack of Guidance, TW = Time Wastages, LSP = Less Service Product, CSS = Cash Counter Services, OS = Online Services, EAATM = Easy Access to ATM, CAATM = Cash Availability in ATM, SK = Staff Knowledge, AAS = Access to Account Statements.

Acquiring data was entered in the MS office Excel spreadsheets for advanced analysis using SPSS 20.00.

4. Results and discussion

Retail banking occupies a key position in Pakistani banking sector (Nguyen & Rowley, 2015). Economic experts believe that real economic growth in Pakistan is linked with dynamic banking (Bonaccorsi di Patti & Hardy, 2005). In this regards, the State Bank of Pakistan has introduced several reforms and instructed every bank in the country to enhance its performance and maintain a certain number of branches (Burki & Ahmad, 2010). To comply with the reforms agenda, private and public sector banks have extended their branch network to even smaller cities and towns. With a large number of branches and extended network all across the country, a new banking environment has emerged in Pakistan where customer outreach is objectively pursued by every bank. This study has comprehensively analyzed the prevailing scenario by taking into account a representative sample of bank customers ($n = 1,089$) from top eight Pakistani retail banks. Our results show that data analysis was considerably reliable as indicated by Cronbach's alpha value (0.78). The reliability statistics further showed that all indicators used to measure the quality of bank services were not consistent. Accordingly, findings of multiple linear regression analysis fulfill the requirements set for measuring customer satisfaction as an outcome variable and predictors were accepted for data interpretation. Regression analysis revealed that only technology solutions offered by the banks are not enough to adequately explain the customer satisfaction. In fact, the interaction of staff dealing with bank customers plays an important role in shaping the response of account holders involved in retail banking. This was primarily indicated by the significant effect of staff behavior ($\beta = 0.18, p < 0.001$) and knowledge of bank staff ($\beta = 0.40, p < 0.001$) upon which customers' satisfaction depends. In addition, guidance inside bank was also observed to have significant impact ($\beta = 0.04, p < 0.01$) in achieving high level of satisfaction for account holders. Banking environment in Pakistan is rapidly moving toward technology and provision of convenience to the customers (Burki & Ahmad, 2010). Therefore, competition between banks is obvious and as a result every bank offers a variety of service such as online banking, ATMs, mobile phone banking, branchless banking, and several others (Shah & Jan, 2014). It is interesting to note that customers rate their good experiences with the bank at their

physical visit and avail of offered services. Our regression model has pointed out significant roles of access to ($\beta = 0.11, p < 0.001$) and availability of cash in ($\beta = 0.11, p < 0.001$) ATMs in customers satisfaction. These two predictors are directly related to the experiences, which customers gain upon visiting the bank and define their actual level of satisfaction. Variety in service products was also observed among significant predictors in our regression model ($\beta = 0.03, p < 0.05$) that explains the changing needs and expectations of bank customers for services that reduce time and transaction costs during retail banking (Molaei, Ansari, & Teimuori, 2013). Our research findings suggest that basic services can improve customer satisfaction and banks should have distinctive focus on staff behavior and service products that need to be constantly improved.

Correlation analysis was used to evaluate the correlation between the intensity of the overall satisfaction of the scope of customer satisfaction with the bank. The overall satisfaction was observed in positive correlation with the bank's customer satisfaction. Staff behavior and time wastages were also among the important factors for customer's satisfaction identified in correlation analysis (Table 10). Our results have repeatedly shown that customer satisfaction is directly related to multiple factors concerning the service quality and then improvement in the quality of the bank's service is extremely important. The results of correlation analysis and regression analysis showed that the behavior of employees, time wasted, staff knowledge, and ATM networks are the key determinants to monitor bank's performance for customer satisfaction. Our findings suggest that banks have to train their staff gradually so that a culture of mannerism is developed inside the bank, where customers are given top priority with a warm welcome. In addition, banks should be equipped with most recent technological facilities, adequate interior space as well as comfortable atmosphere so that customers enjoy their time during banking activities.

4.1. Variation in customer satisfaction and group based effects

4.1.1. Gender and occupation

The level of satisfaction with overall bank services varies considerably between genders, but that might differ across occupational groups of customers. A univariate general linear model based on a two-way analysis of variance tested the satisfaction level of bank customers who were either males or females among respondents, who categorized themselves in occupations as having their own business, salaried persons, and others. Males having their own business showed a significantly higher level of satisfaction with bank services ($F(10.666), p < 0.001, \eta^2 = 0.010$) than females (Table 2). Customers with different occupational groups also showed significantly different levels of satisfaction with bank services ($F(6.209), p < 0.002, \eta^2 = 0.011$). The interaction of gender and occupation was also significant ($F(13.307), p < 0.000, \eta^2 = 0.024$).

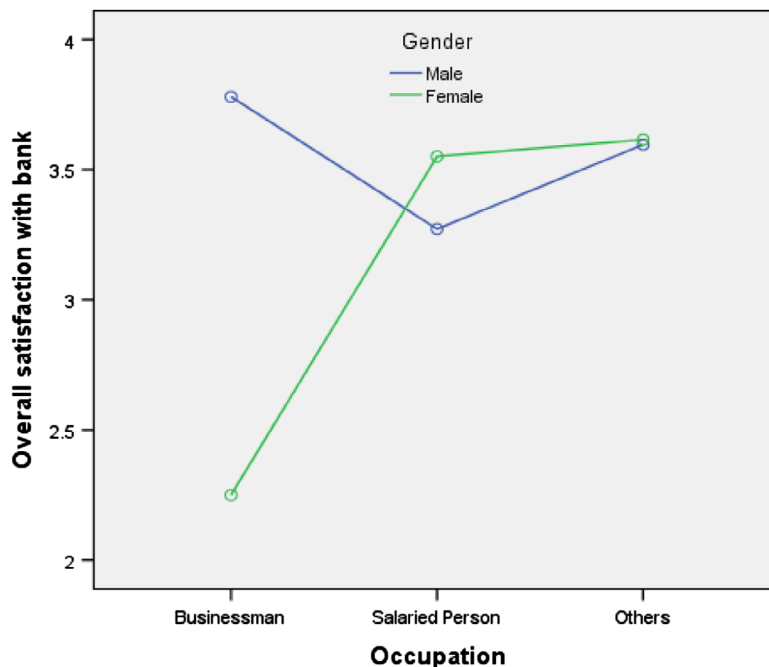
Figure 2 has described the level of satisfaction among bank customers by occupation and gender. The effect of occupation in terms of achieving satisfaction was most obviously manifested by people

Table 2. Mean level of satisfaction among bank customers by occupation and gender

Source	Sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected model	52.864 ^a	5	10.573	12.387	0.000	0.054
Intercept	2,414.654	1	2,414.654	2.829E3	0.000	0.723
Gender	9.104	1	9.104	10.666	0.001	0.010
Occupation	10.600	2	5.300	6.209	0.002	0.011
Gender*Occupation	22.717	2	11.359	13.307	0.000	0.024
Error	924.416	1,083	0.854			
Total	14,546.000	1,089				
Corrected total	977.280	1,088				

^a $R^2 = 0.054$ (Adjusted $R^2 = 0.050$).

Figure 2. Mean level of satisfaction among bank customers by occupation and gender.



who have their own business. In this occupational category, the gender-based difference is especially large among bank account holders. In fact, the businessmen have shown highest level of satisfaction among all occupational groups, whereas absolute low level of satisfaction with bank services was shown by businesswomen. For salaried person, though, the relationship reversed: females show higher satisfaction with bank services than male salaried persons.

Among members of other occupational group, most respondents ($n = 731$) report relatively high level of satisfaction with bank services lie on this five-point scale, with 947 males 142 females reporting the most satisfaction. Account holder occupation makes a difference in satisfaction with bank services, as does the gender. The studies revealed a huge contrast in the overall satisfaction among the business account holder customers in terms of their gender. This contrast is probably because of two basic reasons i.e. (1) lesser involvement of women in business leading to less frequent or limited used of bank services, and (2) difference in academic standard of men and women.

4.1.2. Education and bills collection

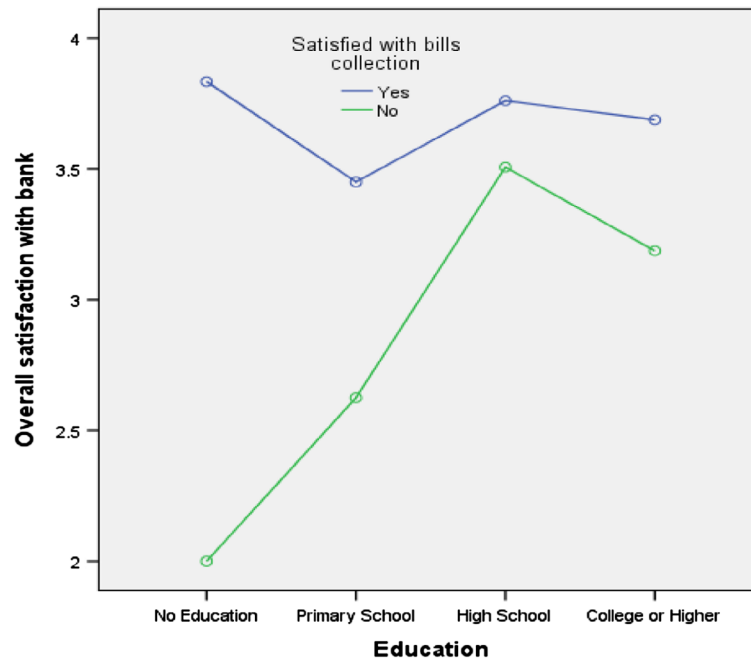
Table 3 and Figure 3 describes the level of satisfaction with overall bill collection varies considerably between the customer with different degrees of academic background. The satisfaction level with

Table 3. Mean level of satisfaction among bank customers by education and bills collection

Source	Sum of squares	df	Mean square	F	Sig.	Partial Eta squared
Corrected model	94.069 ^a	7	13.438	16.448	0.000	0.096
Intercept	2,332.907	1	2,332.907	2.855E3	0.000	0.725
Education	24.260	3	8.087	9.898	0.000	0.027
Bills collection	40.046	1	40.046	49.013	0.000	0.043
Education*Bills Collection	13.431	3	4.477	5.480	0.001	0.015
Error	883.211	1,081	0.817			
Total	14,546.000	1,089				
Corrected total	977.280	1,088				

^a $R^2 = 0.096$ (Adjusted $R^2 = 0.090$).

Figure 3. Mean level of satisfaction on bills collection service by customer's education standard.



bill collection with educational level of bank customers was tested using univariate two-way ANOVA. First, the customer with education variable shows significantly higher level of satisfaction with bill collection ($F(9.898)$, $p < 0.000$, $\eta^2 = 0.027$). Second, the customer with having no education and primary school education showed a low level of satisfaction. Third, the customer with education level up to High School or higher describes level of satisfaction with bills collection is exceeded. At the end, customer having College or Higher educational level represents a significantly higher level of satisfaction with bill collection procedure as indicated in Table 3.

Customers with different opinion with bill collection yes or no groups also showed significantly different levels of satisfaction with bank services ($F(49.013)$, $p < 0.000$, $\eta^2 = 0.043$). The interaction of bill collection and education group was also significant ($F(5.480)$, $p < 0.001$, $\eta^2 = 0.015$). This indicates that education has impact on customer satisfaction with bill collection procedure. The role of education was further confirmed by our ANOVA results where customers having no education are at lower level of satisfaction as compared to highly educated customers.

4.1.3. Regularity and occupation

We can see from Figure 4 that the level of satisfaction with overall bank services varies considerably between routine of customer that how often visit the bank, but that effect might differ across occupational groups of customers. Univariate two-way ANOVA tested the satisfaction level of bank customers having their own business, salaried person, and others among respondents who categorized themselves in rarely, often, very often, and regular. Businessmen showed a significantly higher level of satisfaction with bank services ($F(4.696)$, $p < 0.003$, $\eta^2 = 0.013$) than salaried persons (Table 4). Customers with different occupational groups also showed significantly different levels of satisfaction with bank services ($F(10.830)$, $p < 0.000$, $\eta^2 = 0.020$). The interaction of routine visitors and occupation was also significant ($F(1.325)$, $p < 0.243$, $\eta^2 = 0.007$).

4.1.4. Requirements satisfaction and customer age

The level of satisfaction with overall bank services varies considerably between different age group. A two-way analysis of variance tested the satisfaction level of bank customers who either stated that banks meet all their requirements with age groups of the respondents. Customers stating that bank meeting requirement that showed a significantly higher level of satisfaction with bank services

Figure 4. Mean level of satisfaction among bank customers by regularity and occupation.

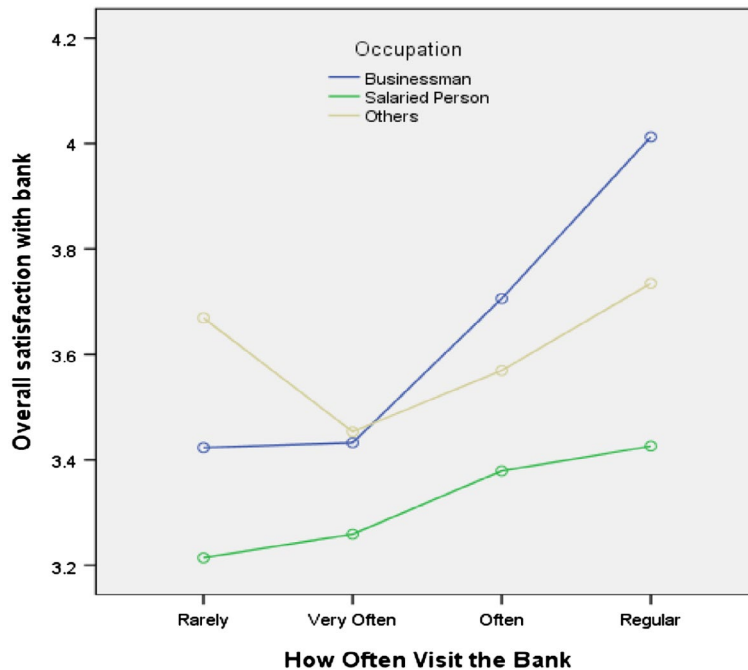


Table 4. Mean level of satisfaction among bank customers by regularity and occupation

Source	Sum of squares	df	Mean square	F	Sig.	Partial Eta squared
Corrected model	48.052 ^a	11	4.368	5.063	0.000	0.049
Intercept	9,933.567	1	9,933.567	1.151E4	0.000	0.914
Occupation	18.688	2	9.344	10.830	0.000	0.020
Regularity	12.156	3	4.052	4.696	0.003	0.013
Regularity*Occupation	6.860	6	1.143	1.325	0.243	0.007
Error	929.228	1,077	0.863			
Total	14,546.000	1,089				
Corrected total	977.280	1,088				

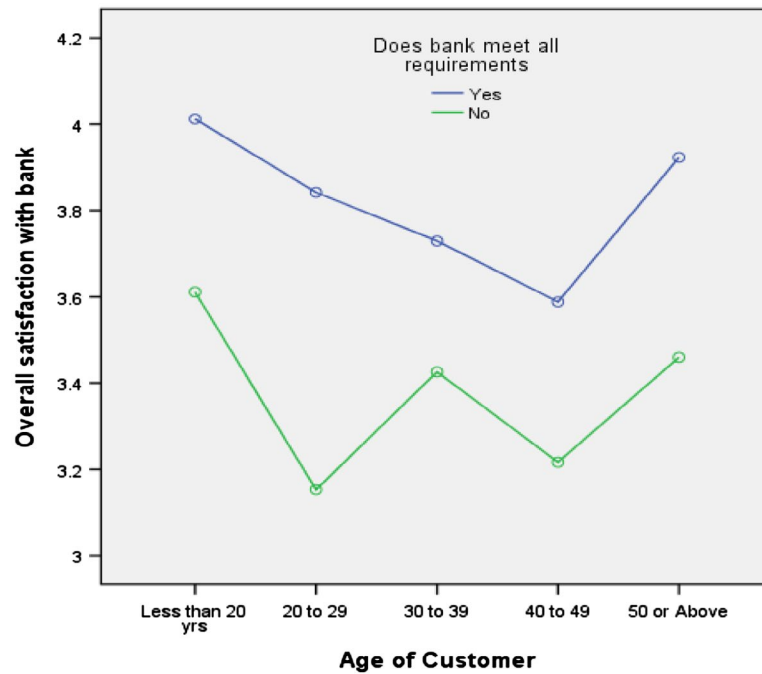
^aR² = 0.049 (Adjusted R² = 0.039).

Table 5. Mean level of satisfaction among bank customers by age and requirements of customers

Source	Sum of squares	df	Mean square	F	Sig.	Partial Eta squared
Corrected model	91.243 ^a	9	10.138	12.346	0.000	0.093
Intercept	8,676.370	1	8,676.370	1.057E4	0.000	0.907
Customer age	14.305	4	3.576	4.355	0.002	0.016
Requirement satisfaction	33.353	1	33.353	40.617	0.000	0.036
Customer age*Requirement satisfaction	7.493	4	1.873	2.281	0.059	0.008
Error	886.037	1,079	0.821			
Total	14,546.000	1,089				
Corrected total	977.280	1,088				

^aR² = 0.093 (Adjusted R² = 0.086).

Figure 5. Mean level of satisfaction among bank customers by age and requirements of customers.



($F(4.355)$, $p < 0.002$, $\eta^2 = 0.016$) (Table 5). Customers with different age groups also showed significantly different levels of satisfaction with bank services ($F(40.617)$, $p < 0.000$, $\eta^2 = 0.036$). The interaction of age of customers and bank meet requirements was also significant ($F(2.281)$, $p < 0.059$, $\eta^2 = 0.008$).

This research showed that less than 20 year young customer’s satisfaction level was very high, but more than 20 were less satisfied. Customers of this age group mostly utilize bank draft facilities to submit utility bills, fees, etcetra, so they don’t observe the all banking procedure are relatively more satisfied as compared to elder aged Customers (Figure 5).

4.1.5. Staff knowledge and occupation

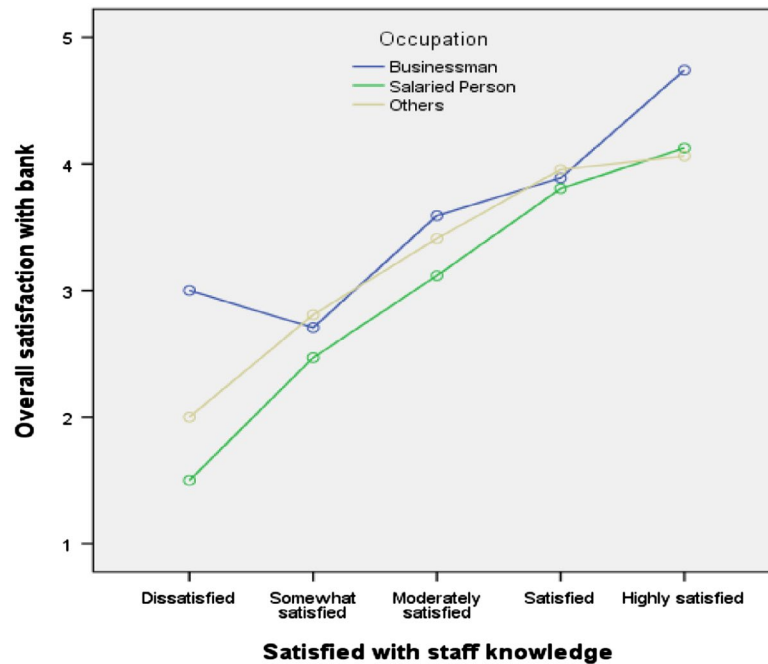
The level of satisfaction with overall bank services varies considerably between occupation and staff knowledge. A univariate general linear model based on a two-way analysis of variance tested the satisfaction level of bank customers having different occupations with bank staff knowledge. Customers type based on occupation group showed a significantly higher level of satisfaction with bank services ($F(26.825)$, $p < 0.000$, $\eta^2 = 0.048$) (Table 6). Customers with different opinion about

Table 6. Mean level of satisfaction among bank customers by staff knowledge and occupation

Source	Sum of squares	df	Mean square	F	Sig.	Partial Eta squared
Corrected model	419.969 ^a	14	29.998	57.809	0.000	0.430
Intercept	5,871.304	1	5,871.304	1.131E4	0.000	0.913
Occupation	27.839	2	13.920	26.825	0.000	0.048
Staff knowledge	317.187	4	79.297	152.814	0.000	0.363
Occupation*Staff knowledge	20.667	8	2.583	4.978	0.000	0.036
Error	557.311	1,074	0.519			
Total	14,546.000	1,089				
Corrected total	977.280	1,088				

^a $R^2 = 0.430$ (Adjusted $R^2 = 0.422$).

Figure 6. Mean level of satisfaction among bank customers by staff knowledge and occupation.



staff knowledge also showed significantly different levels of satisfaction with bank services ($F(152.814)$, $p < 0.000$, $\eta^2 = 0.363$). The interaction of occupation of customers and satisfaction of staff knowledge was also significant ($F(4.978)$, $p < 0.000$, $\eta^2 = 0.036$). As depicted in Figure 6, businessmen were highly satisfied, but salaried person and other account holders were same status. Salaried person were much dissatisfied as compared to businessmen and other account holders.

4.1.6. Staff knowledge and bills collection

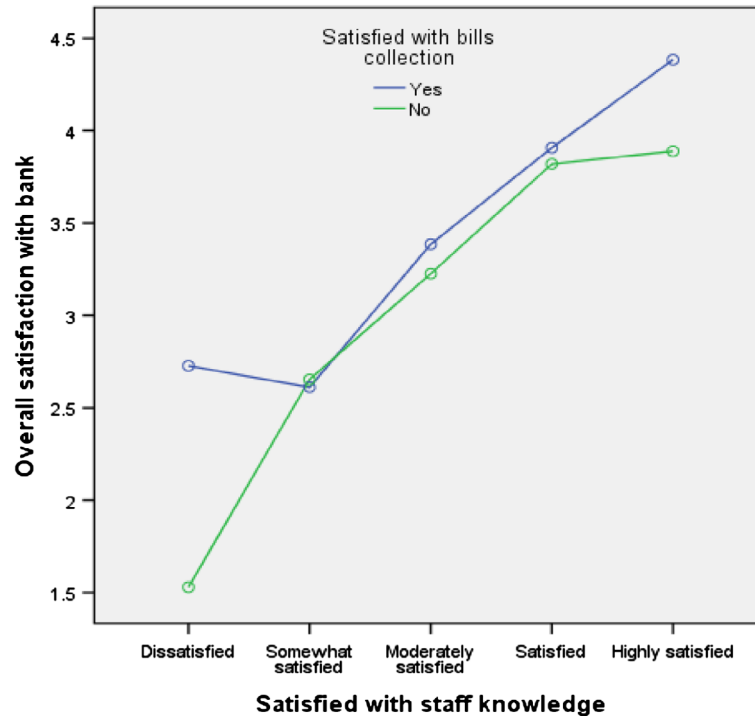
We can see Table 7 and Figure 7 showed the level of satisfaction with overall bank services varies considerably between satisfactions with bills, but that effect might differ across staff knowledge. The level of customer satisfaction, with bill collection showed a significantly higher level of satisfaction with staff knowledge ($F(136.302)$, $p < 0.000$, $\eta^2 = 0.336$) than no (Table 7). Customers with different scale of staff knowledge also showed significantly different levels of satisfaction with bank services ($F(34.206)$, $p < 0.000$, $\eta^2 = 0.031$). The interaction of bill collections and staff knowledge was also significant ($F(8.485)$, $p < 0.000$, $\eta^2 = 0.030$).

Table 7. Mean level of satisfaction among bank customers by staff knowledge and bills collection

Source	Sum of squares	df	Mean square	F	Sig.	Partial Eta squared
Corrected model	407.676 ^a	9	45.297	85.807	0.000	0.417
Intercept	5,178.675	1	5,178.675	9.810E3	0.000	0.901
Staff knowledge	287.815	4	71.954	136.302	0.000	0.336
Bills collection	18.058	1	18.058	34.206	0.000	0.031
Staff knowledge*Bills collection	17.917	4	4.479	8.485	0.000	0.030
Error	569.604	1,079	0.528			
Total	14,546.000	1,089				
Corrected total	977.280	1,088				

^a $R^2 = 0.417$ (Adjusted $R^2 = 0.412$).

Figure 7. Mean level of satisfaction among bank customers by staff knowledge and bills collection.



4.1.7. Complaints handling and customer locking

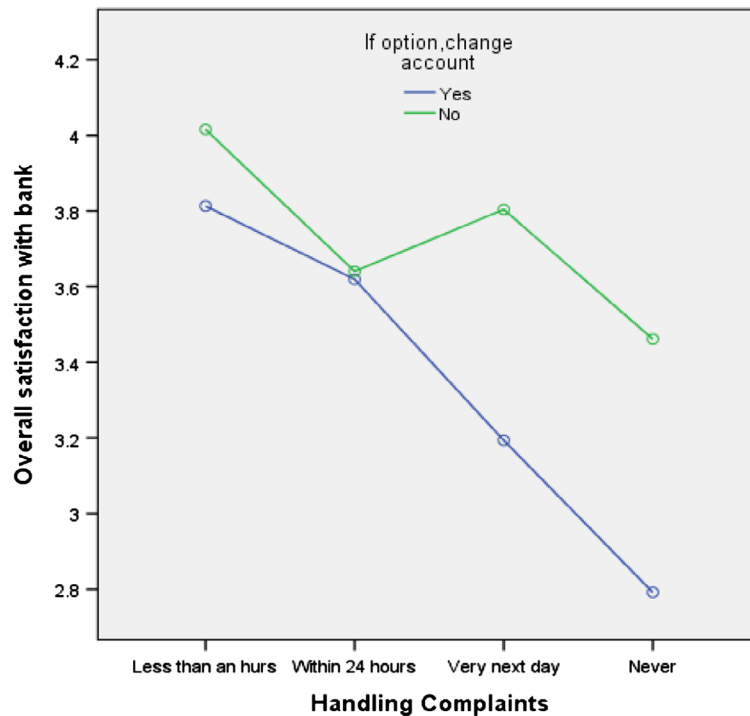
The level of satisfaction with overall bank services varies considerably between complaint handling and customer locking. Based on a two-way analysis of variance (univariate general linear model), the satisfaction level of bank customers was tested for customers who want to change account or not, with the responses obtained to categorize the level of complaints handling. The handling of complaints was categorized as; handling within 24 h, very next day, and never. Customers of both types who were either willing to change their accounts or not showed a significantly higher level of satisfaction with bank services ($F(39.165), p < 0.000, \eta^2 = 0.035$) than females (Table 8 and Figure 8). Customers with different opinion about handling of complaint groups also showed significantly different levels of satisfaction with bank services ($F(22.870), p < 0.000, \eta^2 = 0.060$). The interaction of handling of complaint categories and willingness to change account or not was also significant ($F(8.217), p < 0.000, \eta^2 = 0.022$).

Table 8. Mean level of satisfaction among bank customers by complaints handling and customer locking

Source	Sum of squares	df	Mean square	F	Sig.	Partial Eta squared
Corrected model	126.657 ^a	7	18.094	22.994	0.000	0.130
Intercept	10,941.713	1	10,941.713	1.391E4	0.000	0.928
Complaints handling	53.989	3	17.996	22.870	0.000	0.060
Customer locking	30.818	1	30.818	39.165	0.000	0.035
Complaints handlings*Customer locking	19.397	3	6.466	8.217	0.000	0.022
Error	850.623	1,081	0.787			
Total	14,546.000	1,089				
Corrected total	977.280	1,088				

^a $R^2 = 0.130$ (Adjusted $R^2 = 0.124$).

Figure 8. Mean level of satisfaction among bank customers by complaints handling and customer locking.



4.1.8. Complaints handling and occupations

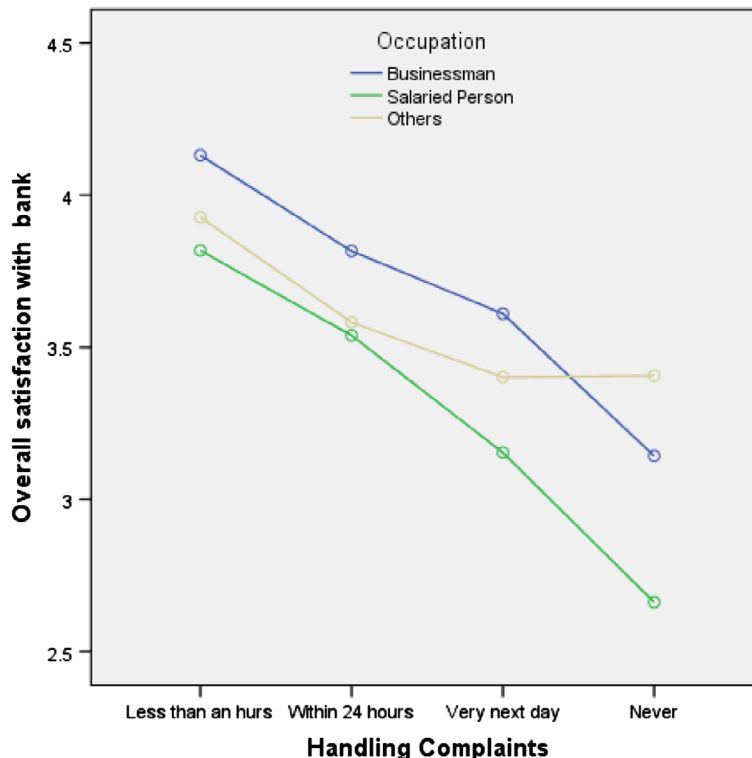
General linear model based on a two-way ANOVA was applied to see the effect of account type (businessmen, salaried person or others) on the satisfaction level of customers who categorized that their complaints were handled in less than an hour, within 24 h, very next day, and never Figure 8. The level of satisfaction with overall bank services varies considerably between handling of complaint group, but that effect might differ across occupational groups of customers. Customer group whose complaints were solved in less than an hour showed a significantly higher level of satisfaction with bank services ($F(28.498)$, $p < 0.000$, $\eta^2 = 0.074$) than within 24 h (Table 9). Customers with different occupational groups also showed significantly different levels of satisfaction with bank services ($F(14.279)$, $p < 0.000$), $\eta^2 = 0.026$). The interaction of complaint handling variation and occupation was also significant ($F(2.548)$, $p < 0.019$, $\eta^2 = 0.014$). Figure 9 showed businessmen complaint solving ratio in half an hour is greater than salaried person and other account holders.

Table 9. Mean level of satisfaction among bank customers by complaint handlings and occupation

Source	Sum of squares	df	Mean square	F	Sig.	Partial Eta squared
Corrected model	120.534 ^a	11	10.958	13.775	0.000	0.123
Intercept	9,862.686	1	9,862.686	1.240E4	0.000	0.920
Complaints handling	68.009	3	22.670	28.498	0.000	0.074
Occupation	22.717	2	11.359	14.279	0.000	0.026
Complaints handling*Occupation	12.160	6	2.027	2.548	0.019	0.014
Error	856.746	1,077	0.795			
Total	14,546.000	1,089				
Corrected total	977.280	1,088				

^a $R^2 = 0.123$ (Adjusted $R^2 = 0.114$).

Figure 9. Mean level of satisfaction among bank customers by complaint handlings and occupation.



The analysis on multiple regressions was performed to predict the satisfaction of bank customers using 12 predictors. Out of these, nine variables were statistically significantly predicted the customers’ satisfaction. The full model is significant ($F = 94.097, df = 12, p < 0.000$). The model summary has indicated a fairly moderate relationship between dependent and independent variables as shown by multiple correlation coefficient value ($R = 0.51$). The overall satisfaction of bank customers “Y” and the 12 predictor variables: staff behavior, seating arrangements, lack of guidance, time wastage, less service product, cash counter services, online services, handling complaints, easy access to ATM, cash availability in ATM, access to account statements, and satisfied with staff knowledge depicted that upon inclusion of all predictor variables (X_1-X_{12}) in the model the adjusted R^2 value is 0.51. This shows that overall 51% variance is explained in the dependent variable from the 12 predictors.

Table 10. Coefficients of linear regression analysis used for predicting customer satisfaction

Variable	B	T-score	p-value
(Constant)	1.926	12.985	0.000
Staff behavior	0.187	9.614	0.000
Seating arrangements	-0.061	-3.222	0.001
Lack of guidance	0.046	2.753	0.006
Time waste	0.025	1.669	0.095
Less service products	0.035	2.167	0.030
Cash counter	-0.051	-3.106	0.002
Online services	-0.003	-0.231	0.817
Handling complaints	-0.051	-2.224	0.026
Easy access to ATM	0.111	5.654	0.000
Cash availability in ATM	0.116	5.131	0.000
Satisfied with staff knowledge	0.404	16.569	0.000
Access to account statements	0.027	1.701	0.089

Notes: $R^2 = 0.51$; Adjusted $R^2 = 0.50$.

Table 11. Correlation matrix for problems indicated by bank customers

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Staff behavior	1										
2. Seating arrangements	0.619**	1									
3. Lack of guidance	0.402*	0.398*	1								
4. Time waste	0.246*	0.211*	0.303*	1							
5. Less services	0.230*	0.227*	0.283*	0.369*	1						
6. Cash counter	0.180*	0.229*	0.282*	0.212*	0.419*	1					
7. Online services	0.290*	0.259*	0.299*	0.133*	0.269*	0.306*	1				
8. Access to bank statements	0.312*	0.280*	0.275*	0.155*	0.215*	0.225*	0.427*	1			
9. Handling complaints	0.214*	0.189*	0.117*	0.200*	0.201*	0.080*	0.138*	0.108*	1		
10. Easy access to ATM	-0.208*	-0.119*	-0.099*	-0.154*	-0.085*	-0.115*	-0.086*	-0.086*	-0.204*	1	
11. Cash availability in ATM	-0.148*	-0.074*	-0.132*	-0.229*	-0.077*	-0.063*	-0.086*	0.029*	-0.154*	0.359*	1
12. Satisfied with staff knowledge	-0.280*	-0.182*	-0.229*	-0.302*	-0.185*	-0.150*	-0.082*	-0.118*	-0.318*	0.390*	0.358*

Note: Coefficients of Spearman rank correlation.

*Level of significance $p < 0.05$

**Level of significance $p < 0.01$.

From result of ANOVA, it is evident that model used here is capable in explaining the variation in the dependent variable (overall satisfaction with bank). It further shows that using the model is better than guessing the mean because the significant F statistics value is higher than mean square (Table 10). While looking at un-standardized coefficients and absolute standardized coefficient (β), it is further revealed that out of 12 independent predictors used, nine showed the significant impact on customer satisfaction. The complete regression model is therefore stated as:

$$\text{OSB} = 1.92 - 0.187\text{SB} - 0.06\text{SA} + 0.05\text{LG} - 0.03\text{TW} + 0.04\text{LSP} - 0.05\text{CCS} \\ + 0.003\text{OS} + 0.11\text{EAATM} + 0.12\text{CAATM} - 0.05\text{HC} + 0.40\text{SK} + 0.03\text{AAS} + \text{Error} \quad (3)$$

The satisfaction and intention scale provided high reliability level, (Oliver, Rust, & Varki, 1997). All correlation are highly significantly less than 1 (Palmatier, Scheer, Houston, Evans, & Gopalakrishna, 2007) indication internal reliability.

The correlation matrix for all the 12 predictor variables is presented in Table 11. The coefficient of correlation for almost all cases is observed statistically significant. However, level of significance varies from 5% ($p < 0.05$) to 1% ($p < 0.01$), which is a meaningful way to analyze the multiple correlation effects and decide minimum contribution of factor either 1 or 5% (Cattel & Vogelmann, 1977). The relationship between these variables shows a great deal of information indicating that banking services of different types are strongly linked with customer satisfaction which has been reported in different other studies as well (Gremmler et al., 2001).

5. Conclusion

To attract customers, every bank describes its best services and every bank ensures that customer satisfaction will be guaranteed. However, unless customers are involved in retail banking and gain first-hand experience, it is impossible to gage their satisfaction level. We believe that the banking sector in Pakistan is resilient and growing despite economic constraints. Increase in customer number is inevitable to banks for their future expansion. This study has identified key factors which banks need to focus in order to increase number of customer and their satisfaction. Staff behavior, seating arrangements, lack of guidance, prevent time wastages, and online service quality are important predictors. By solving such problems, a bank can gain more trust from its customers and can progress easily. Findings presented here have demonstrated a methodological approach, which can be applied to other sectors apart from Pakistani retail banks to tap the response of customers. It is assumed that the statistical analysis presented is distinct in clarifying various interesting insights for the retail banking sector. Specifically, it means that reputation is a highly critical, basic quality and this is a possible highlight for the banking business. This research work also concludes that being a reputed bank does not amuse a customer, and a poor perception of quality would instantly support high dissatisfaction. Hence, three important predictors of satisfaction that emerge in our study are the staff behavior, online services, and service product.

The present study concludes with the recommendations to the retail banking sector in Pakistan to focus on the investigated predictors, specially on staff training, service products, consumption of customer's time, online banking network, and ATM facilities on top priority basis in order to achieve maximum customer satisfaction, eventually leading to the growth in the business of bank.

Acknowledgments

We acknowledge the cooperation rendered by the interviewed bank customers for sparing their precious time and sharing their experiences about services of banks.

Funding

This work was supported by National Natural Science Foundation of China [grant numbers 11401556, 11471304, 11171321].

Author details

Muhammad Naeem Anjum^{1,2}
E-mail: naeem_anjum@uos.edu.pk
ORCID ID: <http://orcid.org/0000-0002-7129-3977>
Bi Xiuchun²
E-mail: xcbi@ustc.edu.cn
Jaffar Abbas³
E-mail: abbas.jaffar@hotmail.com
Zhang Shuguang²
E-mail: sgzhang@ustc.edu.cn

¹ Department of Business and Administrative Studies, University of Sargodha Sub-Campus Bhakkar, Bhakkar, Pakistan.

² Department of Statistics and Finance, School of Management, University of Science and Technology of China, Hefei 230026, Anhui, P.R. China.

³ Glorious Sun School of Business and Management, Donghua University, No.1882, West Yan'an Road, Post Code 200051 Shanghai, P.R. China.

Citation information

Cite this article as: Analyzing predictors of customer satisfaction and assessment of retail banking problems in Pakistan, Muhammad Naeem Anjum, Bi Xiuchun, Jaffar Abbas & Zhang Shuguang, *Cogent Business & Management* (2017), 4: 1338842.

References

- Adeoye, B., & Lawanson, O. (2012). Customers satisfaction and its implications for bank performance in Nigeria. *British Journal of Arts & Social Sciences*, 4, 13–29.
- Aghamirian, B., & Dorri, B. (2015). Customer knowledge management application in gaining organization's competitive advantage in electronic commerce. *Journal of Theoretical and Applied Electronic Commerce Research*, 10, 63–78. <https://doi.org/10.4067/S0718-18762015000100006>
- Al Khulaifi, A., Al Sulaiti, K., & Al Khatib, F. (2005). Banking services and customer's Satisfaction in Qatar, A statistical analysis.
- Al-Hawari, M., & Ward, T. (2006). The effect of automated service quality on Australian banks' financial performance and the mediating role of customer satisfaction. *Marketing Intelligence & Planning*, 24, 127–147. <https://doi.org/10.1108/02634500610653991>
- Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994). Customer satisfaction, market share, and profitability: Findings from Sweden. *Journal of Marketing*, 53–66. <https://doi.org/10.2307/1252310>
- Anderson, E. W., Fornell, C., & Rust, R. T. (1997). Customer satisfaction, productivity, and profitability: Differences between goods and services. *Marketing Science*, 16, 129–145. <https://doi.org/10.1287/mksc.16.2.129>
- Anderson, E. W., & Mittal, V. (2000). Strengthening the satisfaction-profit chain. *Journal of Service Research*, 3, 107–120. <https://doi.org/10.1177/109467050032001>
- Athanassopoulos, A., Gounaris, S., & Stathakopoulos, V. (2001). Behavioural responses to customer satisfaction: An empirical study. *European Journal of Marketing*, 35, 687–707. <https://doi.org/10.1108/03090560110388169>
- Babakus, E., & Boller, G. W. (1992). An empirical assessment of the SERVQUAL scale. *Journal of Business Research*, 24, 253–268. [https://doi.org/10.1016/0148-2963\(92\)90022-4](https://doi.org/10.1016/0148-2963(92)90022-4)
- Baesens, B., Verstraeten, G., Van den Poel, D., Egmont-Petersen, M., Van Kenhove, P., & Vanthienen, J. (2004). Bayesian network classifiers for identifying the slope of the customer lifecycle of long-life customers. *European Journal of Operational Research*, 156, 508–523. [https://doi.org/10.1016/S0377-2217\(03\)00043-2](https://doi.org/10.1016/S0377-2217(03)00043-2)
- Banerjee, M. (2014). Misalignment and its influence on integration quality in multichannel services. *Journal of Service Research*, 17, 460–474. <https://doi.org/10.1177/1094670514539395>
- Barrutia, J. M., & Echebarria, C. (2005). The internet and consumer power: The case of Spanish retail banking. *Journal of Retailing and Consumer Services*, 12, 255–271. <https://doi.org/10.1016/j.jretconser.2004.10.001>
- Berger, A. N., & DeYoung, R. (1997). Problem loans and cost efficiency in commercial banks. *Journal of Banking & Finance*, 21, 849–870. [https://doi.org/10.1016/S0378-4266\(97\)00003-4](https://doi.org/10.1016/S0378-4266(97)00003-4)
- Bonaccorsi di Patti, E. B., & Hardy, D. C. (2005). Financial sector liberalization, bank privatization, and efficiency: Evidence from Pakistan. *Journal of Banking & Finance*, 29, 2381–2406. <https://doi.org/10.1016/j.jbankfin.2005.03.019>
- Burki, A. A., & Ahmad, S. (2010). Bank governance changes in Pakistan: Is there a performance effect? *Journal of Economics and Business*, 62, 129–146. <https://doi.org/10.1016/j.jeconbus.2009.08.002>
- Busacca, B., & Padula, G. (2005). Understanding the relationship between attribute performance and overall satisfaction. *Marketing Intelligence & Planning*, 23, 543–561. <https://doi.org/10.1108/02634500510624110>
- Cattell, R. B., & Vogelmann, S. (1977). A comprehensive trial of the scree and KG criteria for determining the number of factors. *Multivariate Behavioral Research*, 12, 289–325.
- Chi, C. G., & Gursoy, D. (2009). Employee satisfaction, customer satisfaction, and financial performance: An empirical examination. *International Journal of Hospitality Management*, 28, 245–253. <https://doi.org/10.1016/j.ijhm.2008.08.003>
- Cohen, D., Gan, C., Yong, H. H. A., & Chong, E. (2007). Customer retention by banks in New Zealand. *Banks and Bank Systems*, 2, 40–55.
- Cronin Jr., J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76, 193–218. [https://doi.org/10.1016/S0022-4359\(00\)00028-2](https://doi.org/10.1016/S0022-4359(00)00028-2)
- Ehigie, B. O. (2006). Correlates of customer loyalty to their bank: A case study in Nigeria. *International Journal of Bank Marketing*, 24, 494–508. <https://doi.org/10.1108/02652320610712102>
- Farquhar, J. D., & Panther, T. (2008). Acquiring and retaining customers in UK banks: An exploratory study. *Journal of Retailing and Consumer Services*, 15, 9–21. <https://doi.org/10.1016/j.jretconser.2007.02.001>
- Finazzi Santos, P. M., & Porto, R. B. (2014). Environmental responsibility and customers loyalty in retail bank. *Revista de Administração de Empresas*, 54, 606–618. <https://doi.org/10.1590/S0034-7590201406002>
- Fornell, C. (1992). A national customer satisfaction barometer: The Swedish experience. *The Journal of Marketing*, 6–21.
- Frank, B., Abulaiti, G., & Enkawa, T. (2014). Regional differences in consumer preference structures within China. *Journal of Retailing and Consumer Services*, 21, 203–210. <https://doi.org/10.1016/j.jretconser.2013.12.001>
- Füller, J., & Matzler, K. (2008). Customer delight and market segmentation: An application of the three-factor theory of customer satisfaction on life style groups. *Tourism Management*, 29, 116–126. <https://doi.org/10.1016/j.tourman.2007.03.021>
- Fullerton, G. (2011). Creating advocates: The roles of satisfaction, trust and commitment. *Journal of Retailing and Consumer Services*, 18, 92–100.
- Gremler, D. D., Gwinner, K. P., & Brown, S. W. (2001). Generating positive word-of-mouth communication through customer-employee relationships. *International Journal of Service Industry Management*, 12, 44–59. <https://doi.org/10.1108/09564230110382763>
- Grieco, N., Ieva, F., & Paganoni, A. M. (2012). Performance assessment using mixed effects models: A case study on coronary patient care. *IMA Journal of Management Mathematics*, 23, 117–131. <https://doi.org/10.1093/imaman/dpr007>
- Hallowell, R. (1996). The relationships of customer satisfaction, customer loyalty, and profitability: an empirical study. *International Journal of Service Industry Management*, 7, 27–42.
- Homburg, C., & Giering, A. (2001). Personal characteristics as moderators of the relationship between customer satisfaction and loyalty—An empirical analysis. *Psychology & Marketing*, 18, 43–66. [https://doi.org/10.1002/\(ISSN\)1520-6793](https://doi.org/10.1002/(ISSN)1520-6793)

- He, L.-h., Li, S.-B., Gao, Q., & Zhang, Z. G. (2015). Improving operational efficiency for a two-way highway toll station. *Quality Technology and Quantitative Management*, 12, 355–368. <https://doi.org/10.1080/16843703.2015.11673386>
- Ganguli, S., & Roy, S. K. (2011). Generic technology-based service quality dimensions in banking: Impact on customer satisfaction and loyalty. *International Journal of Bank Marketing*, 29, 168–189.
- Jamal, A., & Naser, K. (2003). Factors influencing customer satisfaction in the retail banking sector in Pakistan. *International Journal of Commerce and Management*, 13, 29–53. <https://doi.org/10.1108/eb047465>
- Johnson, M. D., Gustafsson, A., Andreassen, T. W., Lervik, L., & Cha, J. (2001). The evolution and future of national customer satisfaction index models. *Journal of Economic Psychology*, 22, 217–245. [https://doi.org/10.1016/S0167-4870\(01\)00030-7](https://doi.org/10.1016/S0167-4870(01)00030-7)
- Kemal Avkiran, N. (1994). Developing an instrument to measure customer service quality in branch banking. *International Journal of Bank Marketing*, 12, 10–18. <https://doi.org/10.1108/02652329410063223>
- Kheng, L. L., Mahamad, O., Ramayah, T., & Mosahab, R. (2010). The impact of service quality on customer loyalty: A study of banks in Penang, Malaysia. *International Journal of Marketing Studies*, 2, 57.
- Kim, S.-Y., Jung, T.-S., Suh, E. H., & Hwang, H. S. (2006). Customer segmentation and strategy development based on customer lifetime value: A case study. *Expert Systems with Applications*, 31, 101–107. <https://doi.org/10.1016/j.eswa.2005.09.004>
- Kotler, P., & Armstrong, G. (2010). *Principles of marketing*. Upper Saddle River, NJ: Pearson Education.
- Levesque, T., & McDougall, G. H. (1996). Determinants of customer satisfaction in retail banking. *International Journal of Bank Marketing*, 14, 12–20. <https://doi.org/10.1108/02652329610151340>
- Mägi, A., & Julander, C.-R. (1996). Perceived service quality and customer satisfaction in a store performance framework. *Journal of Retailing and Consumer Services*, 3, 33–41. [https://doi.org/10.1016/0969-6989\(95\)00040-2](https://doi.org/10.1016/0969-6989(95)00040-2)
- Manrai, L. A., & Manrai, A. K. (2007). A field study of customers' switching behavior for bank services. *Journal of Retailing and Consumer Services*, 14, 208–215. <https://doi.org/10.1016/j.jretconser.2006.09.005>
- Matzler, K., Bailom, F., Hinterhuber, H. H., Renzl, B., & Pichler, J. (2004). The asymmetric relationship between attribute-level performance and overall customer satisfaction: A reconsideration of the importance–performance analysis. *Industrial Marketing Management*, 33, 271–277. [https://doi.org/10.1016/S0019-8501\(03\)00055-5](https://doi.org/10.1016/S0019-8501(03)00055-5)
- Matzler, K., & Sauerwein, E. (2002). The factor structure of customer satisfaction. *International Journal of Service Industry Management*, 13, 314–332. <https://doi.org/10.1108/09564230210445078>
- Matzler, K., Würtele, A., & Renzl, B. (2006). Dimensions of price satisfaction: A study in the retail banking industry. *International Journal of Bank Marketing*, 24, 216–231.
- McDonald, L. M., & Rundle-Thiele, S. (2008). Corporate social responsibility and bank customer satisfaction. *International Journal of Bank Marketing*, 26, 170–182. <https://doi.org/10.1108/02652320810864643>
- Mittal, V., Ross, W. T., & Baldasare, P. M. (1998). The asymmetric impact of negative and positive attribute-level performance on overall satisfaction and repurchase intentions. *Journal of Marketing*, 33–47. <https://doi.org/10.2307/1251801>
- Molaei, M., Ansari, R., & Teimuori, H. (2013). Analyzing the impact of service quality dimensions on customer satisfaction and loyalty in the banking industry of Iran. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3(3), 1–9.
- Nguyen, B., & Rowley, C. (2015). *Ethical and social marketing in Asia*. Sawston: Chandos Publishing.
- Oh, H. (1999). Service quality, customer satisfaction, and customer value: A holistic perspective. *International Journal of Hospitality Management*, 18, 67–82. [https://doi.org/10.1016/S0278-4319\(98\)00047-4](https://doi.org/10.1016/S0278-4319(98)00047-4)
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 460–469. <https://doi.org/10.2307/3150499>
- Oliver, R. L., Rust, R. T., & Varki, S. (1997). Customer delight: Foundations, findings, and managerial insight. *Journal of Retailing*, 73, 311–336. [https://doi.org/10.1016/S0022-4359\(97\)90021-X](https://doi.org/10.1016/S0022-4359(97)90021-X)
- Oppewal, H., & Vriens, M. (2000). Measuring perceived service quality using integrated conjoint experiments. *International Journal of Bank Marketing*, 18, 154–169. <https://doi.org/10.1108/02652320010349049>
- Palmatier, R. W., Scheer, L. K., Houston, M. B., Evans, K. R., & Gopalakrishna, S. (2007). Use of relationship marketing programs in building customer–salesperson and customer–firm relationships: Differential influences on financial outcomes. *International Journal of Research in Marketing*, 24, 210–223. <https://doi.org/10.1016/j.ijresmar.2006.12.006>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1994). Alternative scales for measuring service quality: A comparative assessment based on psychometric and diagnostic criteria. *Journal of Retailing*, 70, 201–230. [https://doi.org/10.1016/0022-4359\(94\)90033-7](https://doi.org/10.1016/0022-4359(94)90033-7)
- Reichheld, F. P., & Sasser, W. E. (1990). Zero defections: Quoliiy comes to services. *Harvard Business Review*, 68, 105–111.
- Rust, R. T., & Zahorik, A. J. (1993). Customer satisfaction, customer retention, and market share. *Journal of Retailing*, 69, 193–215. [https://doi.org/10.1016/0022-4359\(93\)90003-2](https://doi.org/10.1016/0022-4359(93)90003-2)
- Shah, S. Q., & Jan, R. (2014). Analysis of financial performance of private banks in Pakistan. *Procedia – Social and Behavioral Sciences*, 109, 1021–1025. <https://doi.org/10.1016/j.sbspro.2013.12.583>
- Siddiqi, K. O. (2011). Interrelations between service quality attributes, customer satisfaction and customer loyalty in the retail banking sector in Bangladesh. *International Journal of Business and Management*, 6, p12.
- Sivadas, E., & Baker-Prewitt, J. L. (2000). An examination of the relationship between service quality, customer satisfaction, and store loyalty. *International Journal of Retail & Distribution Management*, 28, 73–82. <https://doi.org/10.1108/09590550010315223>
- Wallin Andreassen, T., & Lindestad, B. (1998). Customer loyalty and complex services. *International Journal of Service Industry Management*, 9(1), 7–23. <https://doi.org/10.1108/09564239810199923>
- Wu, C. R., Lin, C. T., & Tsai, P.-H. (2009). Analysing alternatives in financial services for wealth management banks: The analytic network process and the balanced scorecard approach. *IMA Journal of Management Mathematics*, 20, 303–321. <https://doi.org/10.1093/imaman/dpp002>
- Wu, Y. M., & Zhao, L. (2006). Magnitude estimation using the first three seconds P-wave amplitude in earthquake early warning. *Geophysical Research Letters*, 33(16).
- Yeung, L. L., & Azevedo, P. F. (2011). Measuring of efficiency of Brazilian courts with data envelopment analysis DEA. *IMA Journal of Management Mathematics*, 1–14.
- Yoon, C. (2010). Antecedents of customer satisfaction with online banking in China: The effects of experience. *Computers in Human Behavior*, 26, 1296–1304. <https://doi.org/10.1016/j.chb.2010.04.001>

Appendix 1

Figure A1, A2. Frequency distribution pie diagram for bank customers used in ANOVA to analyzed between subject effects (a) gender, (b) occupation.

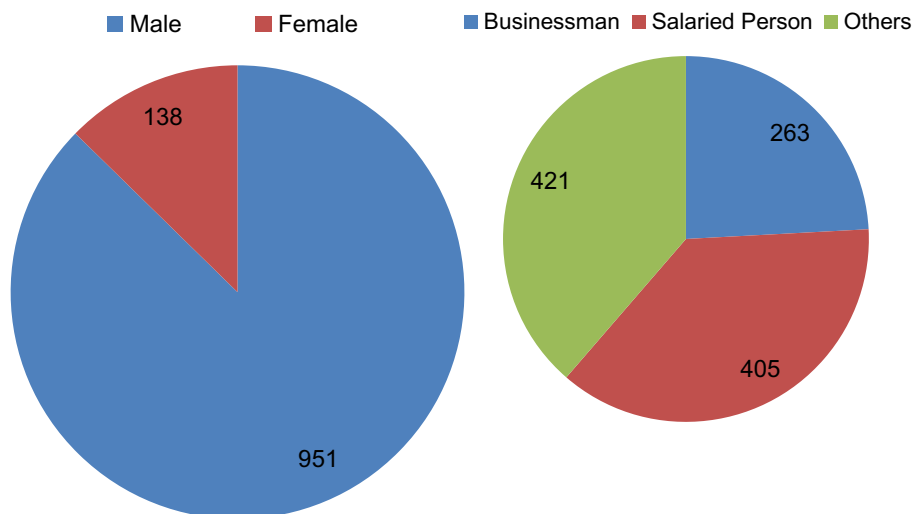


Figure A3, A4. Frequency distribution pie diagram for bank customers used in ANOVA to analyzed between subject effects (a) education, (b) bills collection.

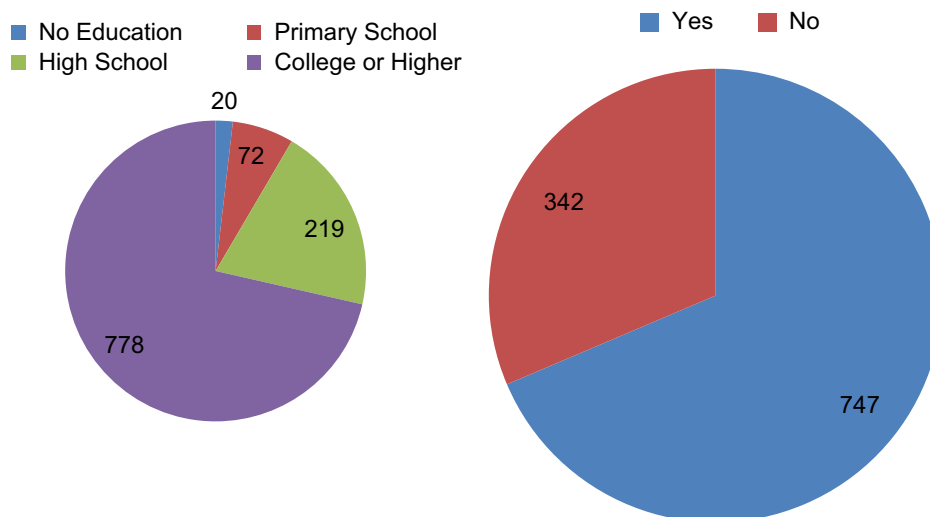


Figure A5, A6. Frequency distribution pie diagram for bank customers used in ANOVA to analyzed between subject effects (a) occupation, (b) regularity.

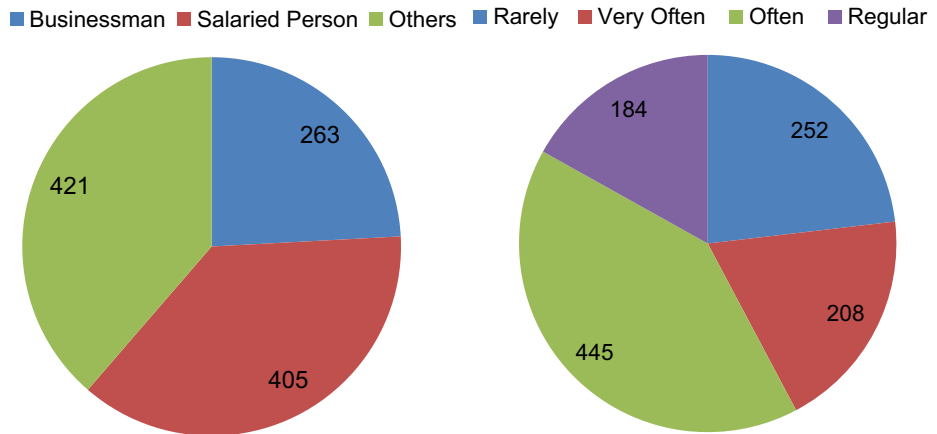


Figure A7, A8. Frequency distribution pie diagram for bank customers used in ANOVA to analyzed between subject effects (a) age group, (b) customer requirements.

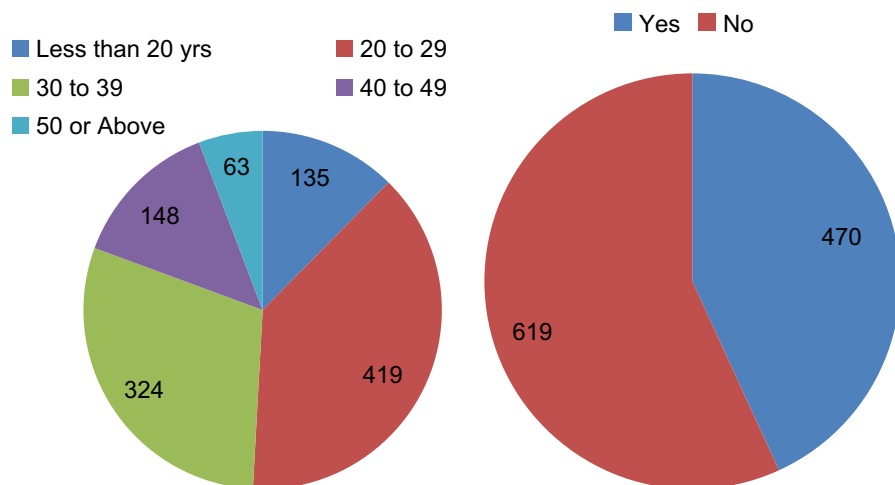


Figure A9, A10. Frequency distribution pie diagram for bank customers used in ANOVA to analyzed between subject effects (a) occupation, (b) staff knowledge.

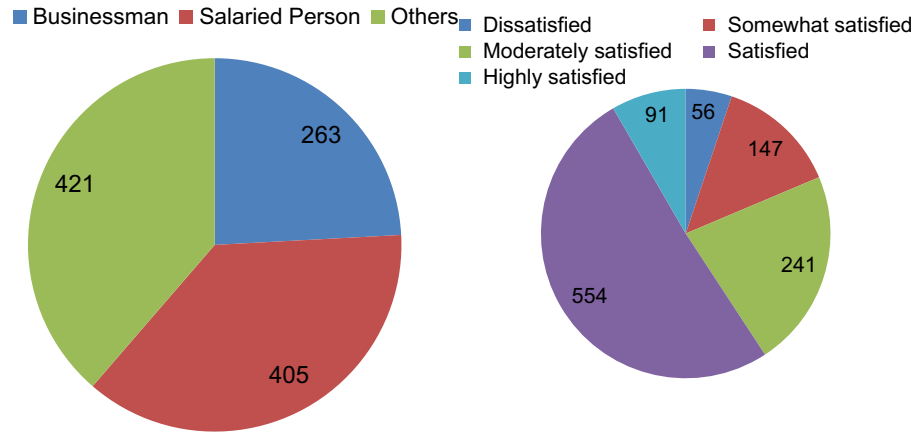


Figure A11, A12. Frequency distribution pie diagram for bank customers used in ANOVA to analyzed between subject effects (a) staff knowledge, (b) bill collection.

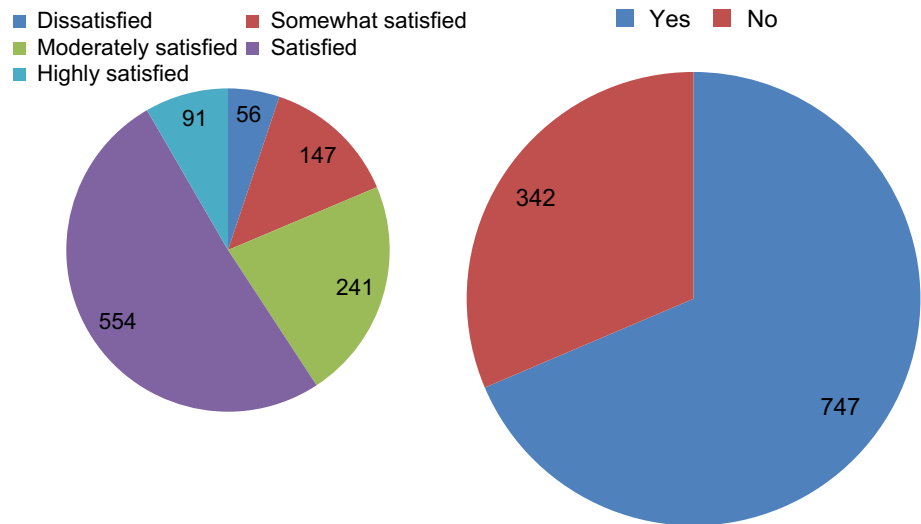


Figure A13, A14. Frequency distribution pie diagram for bank customers used in ANOVA to analyzed between subject effects (a) complaints handling, (b) customer locking.

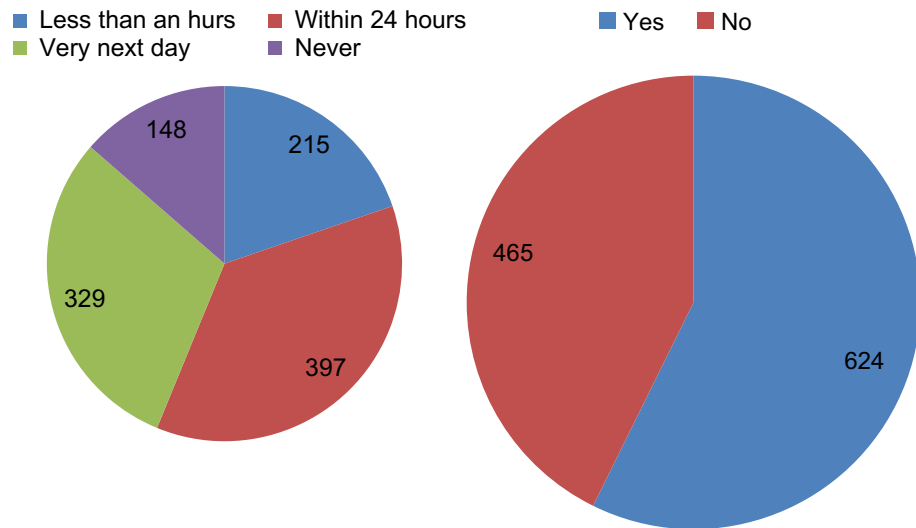


Figure A15, A16. Frequency distribution pie diagram for bank customers used in ANOVA to analyzed between subject effects (a) Complaints handling, (b) occupation.

