T.C.

İSTANBUL KÜLTÜR UNIVERSITY

INSTITUTE OF GRADUATE STUDIES

THE IMPACT OF TOTAL QUALITY MANAGEMENT IN INCREASING CUSTOMER SATISFACTION FOR BANKING SECTORS

MASTER OF SCIENCE THESIS

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Date: 2nd February, 2021 Mohsin HUSSAIN

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LIST OF SYMBOLS

TQM	Total quality management
PSQ	Perceived service quality
CS	Customer satisfaction
SPSS	Statistical package for social sciences
IV	Independent variable
DV	Dependent variable
NHPSP	National Health Policies, Strategies and Plans
a	Lilliefors significance correction
α	Cronbach’s alpha
β	Unstandardized coefficient
P	Significance value

Üniversite	**: İstanbul Kültür Üniversitesi**
Enstitü	**: Lisansüstü Eğitim Enstitüsü**
Anabilim Dalı	**: Endüstri Mühendisliği**
Programı	**: Mühendislik Yönetimi**
Tez Danışmanı	**: Assist. Prof. Dr. İbrahim Ethem TARHAN**
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ÖZET

TOPLAM KALİTE YÖNETİMİNİN BANKACILIK SEKTÖRÜNDEKİ MÜŞTERİLER İÇİN ARTAN ETKİSİ

Mohsin HUSSAIN

Bankacılık rekabeti artmaya devam ettikçe, banka hesaplarını elinde tutan topluluk hizmet kalitesinin artırılması beklemektedir. Bu çalışmanın temel amacı, Bankacılık şirketlerinin Toplam Kalite Yönetimini kullanarak müşteri memnuniyetini artırmalarındaki etkiyi kontrol etmektir. Söz konusu anket online olarak yayınlandı ve veriler Pakistan'da bankacılık hizmetleri kullanan rastgele müşterilerden toplandı. Yanıtlayan kişi sayısı 200'dür. Sosyal Bilimler için İstatitik Paketi (SPSS) ver.20.0 sırasıyla tanımlayıcı, regresyon, normallik, korelasyon ve güvenilirlik istatistiksel analizleri hesaplamak için kullanılmıştır. Kolmogorov-Smirnov ve Shapiro-Wilk normallik testlerine göre, veriler normal bir şekilde dağıtılmıyordu. Sonuçlar, Toplam Kalite Yönetiminin algılanan hizmet kalitesi üzerinde olumlu ve önemli bir etkiye sahip olduğunu ortaya koymuştur. Ayrıca toplam kalite yönetimi ile müşteri memnuniyeti arasında olumlu, güçlü ve önemli bir ilişki vardır. Sonuç olarak, incelenen kuramsal kavramsal çerçeve; toplam kalite yönetimi, algılanan hizmet kalitesi ve tüketici memnuniyeti gibi kalite faktörleri arasındaki önemli ilişkiyi doğrulamış ve önerilen hipotezleri desteklemiştir. Bankacılık sektörleri müşteri memnuniyetini artırmak için yeni stratejik planlara giriştiklerinde bu temel faktörleri de dikkate almak isteyebilirler. Kalite hizmetlerin sürdürülmesinden ve sağlanmasından sorumlu olan kişiler de bu yapıları ayrıca karşılamalılardır.

Anahtar Kelimeler: Toplam kalite yönetiminin, algılanan hizmet kalitesinin, müşteri memnuniyeti, bankacılık sektörleri, SPSS

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ABSTRACT

THE IMPACT OF TOTAL QUALITY MANAGEMENT IN INCREASING CUSTOMER SATISFACTION FOR BANKING SECTORS

Mohsin HUSSAIN

As the banking competition continues to rise, the community holding bank accounts expect service quality to increase. The main aim of this study was to check the impact of Total Quality Management in increasing customer satisfaction by the banking companies. The questionnaire was published online and data collected from random customers who were using the banking services in Pakistan. There were 200 respondents. The Statistical Package for Social Sciences (SPSS) ver.20.0 was used to calculate the descriptive, regression, normality, correlation and reliability statistical analyses respectively. According to the Kolmogorov-Smirnov and Shapiro-Wilk normality test, the data were not normally distributed. The results revealed that Total Quality Management has a positive and significant influence on perceived service quality. Where perceived service quality also exhibits a strong positive effect on customer satisfaction. Likewise, total quality management has a strong positive, and significant relationship with customer satisfaction. Collectively, the theoretical conceptual framework investigated confirmed the substantial relationship between quality factors such as total quality management, perceived service quality & consumer satisfaction and supported the proposed hypotheses. The banking sectors may wish to consider these key factors when engaging with new strategical plans to improve customer satisfaction. Those who liable for maintaining and ensuring the quality services should also meet these constructs.

Keywords: Total quality management, perceived service quality, customer satisfaction, banking sectors, SPSS

Science Code: IEM 3900

1. INTRODUCTION

1.1. Chapter outline

Section one gives an outline of banking and its use for people. It describes the detail of banking, its background, and its customer's satisfaction regarding banking. Section two gives an overview of the basic objectives that this study contains. Chapter three includes questions that are going to be discussed and explored in this study. Section four provides the significance of the study that what things make the study significant.

1.2. Background of the research

Since companies are established, it is always witnessed that customers are the priority of every company. It can be seen that every company wants to get a higher position in the market. They always try to give their best to their patrons. For example, HBL has 20 billion customers worldwide. (Allana, 2019) In 2017, the Bank of Punjab recorded 15,000 subscriptions of mobile banking in 45 days. (Khan, 2017) Every company tries its best for gaining a stronger position in the market by satisfying its company. Apple is an eye-catching company in the race of technology. But to get some higher rank in the market, other companies are giving their best to attain the attention. Huawei has crushed Apple and Samsung to save another best rating for one of its prime smartphones. DXOMark and free commentator is known for ranking the photographic aptitudes of smartphones, depicted the Huawei Mate 20X as a ‘multimedia powerhouse’ after it surpassed rankings for sound execution in its most recent tests. Scoring 75 for generally sound quality, the Huawei Mate 20 X beat Apple's iPhone XS Max, as well as Samsung’s World S10+ and Note 10+. (Vincent, 2020) With the fast growth of companies, it has become a mandatory thing for every company to bring something new or something to attract more customers. If any company is providing a high-security alert to its customers, the other company will try its best to provide with some innovative ideas to have better security. Every company gives its most excellent efforts to make their customers gratified. Banks are the most demanding and established companies for any country or nation. It makes the economic condition better and helps its people to save and secure their capital. A bank’s most vital part may be coordinating up lenders and borrowers, but banks are too basic to the household and worldwide installment system and they make cash. (Gobat, n.d) Any company could not be best without paying its attention to forgive better to its customers. To make customers satisfied, it is one of the primary things to make the environment of a company better to attract them. First thing is to give proper management and training to employees for getting better outcomes. Management makes the pillar of any company to make it stronger in position for competing in the market. The as it were way to realize the nice looking sum of benefits compared to a similar kind of organization is to set up skilled and experienced management and administration in any organization. A bank could be a profit-oriented organization; subsequently, its management strategy is more challenging as the administrative framework continuously is there to control the bank administration. (Kangal, 2017) This research work is going to explore the management and its technique to attract customers. How a bank could get a higher quality of customer’s satisfaction and it can be a possible thing by training employees to do best for its buyer. This research will look into the management and training of employees. This will also examine how employees could be given a better environment to attract customers. Banks are the primary resource for making economic conditions good. In Pakistan, the very first bank was HBL and after that, there were more banks to introduce better introduce and economical condition. Banks are the safe side for making money of nation safe. A bank may be a monetary association that is involved in pirating and lending currency. Banks take client goods in return for repaying patrons a yearly collusions installment. The bank at that argument pays the lion’s share of these vittles to loan to other clients for a mixture of credits. The bank plays an imperative part within the economy for advertising a benefit for individuals wishing to spare. Moreover, banks play a vital part in advertising back to businesses who wish to contribute and grow. (Pettinger, 2020) In the Pakistani banking sectors, the Total Quality Management (TQM) method is used to get results about satisfied customers by service of management of banking sectors. Hence, this study will analyze how employees are instructed and given an environment that is suitable for them to attract potential customers. Moreover, this research study will examine the relationship between customers and employees in the light of strong, positive, or weak, null outcomes of the relationship.

To the finest of researcher information, this study could be taken as the new source to get to know about that through which management method, employees could be trained well, and the satisfaction of customers could be gained for making stronger position in the market.

1.3. Research problem

This research study will challenge to give the answers to the following questions that are related to bank management and customer's fulfillment:

- How the banking sectors of Pakistan can attain satisfied customers?
- How does management have effects on employees?
- How does training affect employees?
- How does the Total Quality Management (TQM) technique help to acquire the attention of customers?

1.4. Research objectives

The purposes of this research are:

- ➢ To check the influence of Total Quality Management (TQM) in the banking sectors of Pakistan.
- ➢ To analyze the customer's loyalty towards banking service in Pakistan.
- ➢ To study the effects of Total Quality Management in increasing customer satisfaction.
- ➢ To check the balance and relationship between service quality and consumer satisfaction.

1.5. Research contribution

This research is significant for banking sectors to know the following outcomes:

- ▪ To stumble on the effects of total quality management technique in banking sectors in Pakistan and to examine how it produces better customer satisfaction.

- To give outcomes of using total quality management that how services could be improved by using this administrative method in banking sectors.
- To inspect the relationship between service and consumers and its effects on management.

1.6. Research questions

This research aims to answer the following questions;

1.6.1. Primary questions

Within the context of the administration of banking sectors in Pakistan;

a) What is the significance of total quality management in attaining satisfied customers in the Pakistani banking sectors?

1.6.2. Secondary questions

a. Is there any association or relation between building trust for banks on the loyalty of customers?
b. Does client approval increase the trust of banks?
c. How does total quality management affect the relationship between service and customers?
d. How does TQM play a role of bridge to gain customer satisfaction and better quality management?

1.7. Research hypotheses

This research contributes to the following proposed hypotheses:

H0: *Total quality management has an insignificant and indirect impact on consumers*
H1: *Total quality management has a positive and strong influence on perceived service quality.*

H2: *Perceived service quality has a positive and significant impact on customer satisfaction*
H3: *Total quality management has a significant and strong positive impact on customer satisfaction*

1.8. Research methodology

This research will cope with the qualitative approach of taken data. The data will be analyzed under a conceptual framework of the chosen number of people. Data will be scrutinized under evaluation of Statistical Package for Social Sciences (SPSS) version 20. Data was collected through the common population and questionnaires were conducted online. This chapter provides a glance of a detailed discussion of data and its evaluations.

1.9. Limitations of the study

There are some specific limitations and challenges in every inquiry which researchers face during their time of the collective study. Like that, in this research, the author encountered with few limitations and challenges.

Firstly, this research was categorized only for the banking sectors in Pakistan other than any company or industry. No matter, it could be widespread among different countries over the globe.

Secondly, only customers having a valid bank account were selected from all over the country to compute the results from the questionnaire. It was very challenging because not every person holds an account in banks.

Thirdly, only selected extraneous variables were occupied after reading previous literature on total quality management and service quality in general. Although, there were other variables available the researcher only selected that fits according to the study requirement for better results.

1.10. Structure of the thesis

This study comprises of following steps:

Chapter 1: Introduction

It contains the plan of the study. It gives short but initial details about all aspects of the study. It provides a map of vital points of study and gives a detailed overview of important topics regarding the study.

Chapter 2: Literature Review

This chapter will provide a detailed hypothesis in detail. This chapter will also provide a historical overview of previous work and continuous work. This will also provide a chronological background of the hypothesis.

Chapter 3: Research methodology

It contains information about the method of collecting data that how is this data collected. It will have a detailed glance at research questionnaires. This chapter will give a detail about the questionnaire and its responses and the evaluation of the responses that are done under the Statistical Package for Social Sciences (SPSS).

Chapter 4: Implementations and results

This chapter will provide an overview of the results and their implications under SPSS. Evaluations and results would be discussed by targeting the banking sectors of Pakistan. There would be a detailed discussion about the Total Quality Management method and its implementation in baking sectors.

Chapter 5: Conclusion.

This chapter will provide a summary of all research work that what are the results and implementations and how does it work in the banking sectors in Pakistan. This chapter will include the conclusion of service quality management and its outcomes, loyalty of customers, quality of employees, and results of impacts of TQM on service and consumer

2. LITERATURE REVIEW

2.1. Total quality management

Total quality management deals with the satisfaction and approval of customers. It holds the success of the company towards its customers in a long-term way through its management techniques. For a customer-focused corporation that embraces all personnel in quality upgrading, TQM can be summed up as a management framework. To unite the quality restraint into the organization's culture and accomplishments, it uses tactic, facts, and competent communication. (Westcott, 2013) TQM is used to achieve triumphs by involving all the workers, their participation, and hard struggle by following the footsteps of the TQM management technique. Total Quality Management describes itself through its title. It is a management technique that is used to attain quality in its work. Total Quality Management (TQM) is an enduring method of detecting and lessening or eliminating production defects, reshuffling the management of the supply chain, improving customer amenity, and ensuring that training is up to date for employees. (Barone, 2020) This is a widespread and planned organization management style that emphasizes constant quality improvement of products and services by using endless feedback. (Vliet, 2014) TQM is found in the early 1940s by American productive managers Deming, Juran, and Feigen Baum in Japan. It is founded and broadened for the quality of productivity and organization. It is all based on the best quality of product and management.

This style has the most distinguished 8 features that are following;

- Focus on customer
- Employee involvement
- Process centered
- Integrated system
- A strategical and systematic approach
- Decision making based on facts
- Communication

- Continuous improvement

This theory is founded on the reaction of down productivity in industrial management in America. They think while Japan could do better then why do we not. In this response, they invent this theory to make their products better and create quality in products and labor. Now after this the question arises in mind about the implementation of TQM. The answer to this is PDCA (Plan, Do Check, Act) and it lies in the reign of the 20th century. In the earlier 1920s, it was originally known as PDSA (Plan, Do, Study, Act) and initiated by an engineer named Walter Shewhart. It was named conception at that time. Later on, it was dispersed as a Shewhart cycle by Deming and now it is known as the Deming cycle. It was developed by a Japanese management consultant, William Deming. (Walters, 2020) In figure 2.1, the hierarchy can be seen between the steps. It is obvious when you plan something then you need to draw it and check its pros & cons relatively. If it gives you a green signal then act otherwise again plan.

Figure 2.1. Deming cycle for total quality management

A company clings to a massive number of customers; TQM leads to a process in which the company can make its big bunch of customers satisfied and loyal. It is not easy to determine the quality of service in any firm either it is the bank or any institution. But TQM tries to determine the quality of its institution and tries to get positive and loyal reactions and reviews from its customers. Since the standard of services cannot be determined objectively, it can be difficult to incorporate TQM in the service industry. In addition by default, the service sector has less control over factors that impact efficiency. Compared to the manufacturing settings, there is a much greater degree of external ambiguity in service settings because resources cannot be processed for later use, and because of the customer's involvement in the process. (Edoun, n.d) Management is always the core to lead any company efficiently and effectively, Total Quality Management gives quality service and satisfaction to its company and customers and tries to hold the backbone of success. Customers are the backbone of any company to get achievements. Total Quality Management (TQM) is regarded as a key instrument that contributes to the strategy of job creation and performance enhancement in order to achieve profitability through good services and quality goods. (Rani, 2017) The world has become a global village where everything is accessible and people have a sense about good and bad, they know quality in goods and services. They need quality, so TQM provides all the processes and methods that try to fulfill the need for quality of service for its customers. In almost all fields, TQM is a management approach that is commonly accepted and adapted by managers and practitioners. TQM has been more oriented towards service sectors. Service managers and experts continue to make full efforts in their organizations to embrace TQM and gain maximum benefits and advantages, sustainability in the worldly economy. (Fathima, 2016)

2.2. Principles of TQM

To implement TQM, one has to learn about the principles of Total Quality Management. TQM paves the path for better administration of its employees to get improved results for its customers. Principles are made for better-quality results. The aim of Total Quality Management is the right thing on an ongoing basis for the first time, thus saving the organization's time to correct errors. The concepts of TQM are beneficial to any company because it decreases costs, improves the morale of workers, reduces mistakes, and increases customer's satisfaction. (Mahey, 2018) To fulfill the conditions and constraints of the company it would be effective for a manager to manage its employees under the training of TQM and its principles so that they can get their set goals. Customer satisfaction can only be accomplished if, from the point of view of the customer, and now from its point of view, the bank determines the customer requirements. The consumer must be the center of all the tasks conducted in the company for this. By doing the right thing the first time and every time, all employees of the company are dedicated to quality by using the resources of an organization to provide consumers with value-added quality. (Joe, 2020) Banks are trying to provide their employees with a better environment and facilities so they can give back their potential to their customers and can get positive results. Baking sectors are the best-emerging institutes that are providing worldwide services. The main concern of this literature review and this dissertation is to focus on TQM in banking sectors.

Every bank is providing its best to its employees and customers by adopting different methods and techniques of management but TQM is the best option that is used by different institutes and organizations. TQM's in the manufacturing sectors has fostered several organizations to view their advantages and effects on organization performances. The system has been studied by many academic papers. The efficient implementation of TQM. In high involvement industries like banks, the service quality of banks, particularly apparent facility, plays an important role. Top scholars and researchers firmly agree that delivering reliable customer service is not just the most essential and actual service. (Talib et al., 2012) Principles of TQM are very crucial to study for better implementation of management techniques and results. To follow these principles, one can get success in the TQM method. A core concept principle of Total Quality Management is that people can make mistakes because of defective systems and procedures. This implies that it is possible to define and eradicate the root cause of such errors, and repetition can be avoided by modifying the procedure. (S, n.d.) These principles help one to understand all the facts and rules of TQM. There are so many hurdles and disturbing things to manage and run an institute or company. One has to have a grip over the management technique he is applying to get accomplishment. Principles must be followed and deeply checked in the institution where TQM is being implemented.

2.3. TQM practices

If one only knows about a thing and have enough knowledge about one thing but he does not apply that practically he would not get a good result. The practice is an important and initial thing to do for having better outcomes. The most critical thing in banking, too, is the standard of services. If you conscientiously look for innovative and successful ways to enhance the efficiency of your customer service processes, business performance can be improved. This makes the company more useful for society as a whole. As far as banking is concerned, productive TQM steps carry the good old well to the new better or best for the internal department of the bank to its front line employees in a transfer form. There are so many banks and other working companies which are implementing TQM to get the best outcome as every company wants to be successful in the matter of customer satisfaction. Employees are trained under the principles and rules of TQM by the manager of the company. TQM is used to guide workers according to new policies and technologies, how to grasp the attention of customers, and how to make its organization limelight of success. An ongoing consisting of several different components is to incorporate a complete quality control program. Banks that have started such a journey claim it is an intense, life-long learning experience. This is the mechanism that operates backward to the organization's utter heart. (Appat, 2011) Time demands mastery in one method or technique to work on, and if someone is not applying it practically, the expecting results cannot be generated. Banks are playing a great role in the world's economy and in the welfare of countries where these are established or for what they are working. Workers must be given an environment according to the TQM technique and they are told about every minute thing to get satisfied customers. Total Quality Management, which is about customer service and continuous satisfaction of customers, is relevant not only in the manufacturing sectors but also in service sectors, where the customer is just as important. In reality, consumers in the service sectors are more receptive than in manufacturing to service quality and service delivery because they are still in touch with the front line staff which is not the case with factory employees. (Domingo, 2003)

2.4. Management functions

The management is regarded as the arrangement of the organization, how does one can run the organization with the best strategies and techniques. It provides a crystal clear meaning that it is about the job of the manager. Management is discussed in this chapter under the following, planning (its further points like strategic planning, tactical and operational planning), organizing, leading, etc. Management is separate from other business things i.e. accounting, finance, etc. It deals with planning, controlling, and leading an organization. Business management is a discipline keen on organizing, analyzing, and planning numerous categories of business procedures. Whereas, such fields cover many grounds due to which it sounds general. (Writers, 2020) According to collegechoice.net business management covers the main fields of an organization which primarily deals with the standing point of an organization. Furthermore; “Having a real desire for the business, your supervision is very important for your victory. But passion alone is not sufficient. You also need primary business talents to properly launch your organization and endure over the long term”. (Mcpherson, 2016) A website that is a project of Harvard University, it is mentioned there that management is a skill that is mandatory for running a successful business or to run a new organization. Management skills pave the path for one to achieve his or her goals.

2.5. Customer loyalty

Customer loyalty is the core point to note and discuss. Customers are the backbone of any company to make a victorious place in the competing market. If a customer is satisfied then he will be loyal towards the company and it will make the company’s position strong in the market. A commercial bank accomplishes its basic objectives by offering its customers banking products and services. As a result, bank customers have an important position; they buy the goods of the bank, and thereby produce sufficient income for the bank and promote their competitive ability. (Chocholáková et al., 2015) If a company is providing its customers with all the facilities in a better and sincere way, they would help them to promote their company and will make it like trump tower in the market of competition. The loyalty of customers could not be gained within days, it takes time and long term hard work.

Customers' loyalty is generated by the customer's continued satisfaction accompanied by emotional attachments formed with the service provider that generates willingness and continuity in the choice, patronage, and premium relationship. (Chiguvi & Guruwo, 2017) Loyal customers are the representative of a company in the market. Loyalty could be gained by providing them satisfactory services. The loyalty of customers could be measured as their long-term purchasing from the company and preferred that company over others in the market and it could be gained through introducing and facilitating them with best. Banking customer service can contribute to a higher level of overall customer satisfaction and also commercial banks' partial operation satisfaction. (Chocholáková et al., 2015) Workers are trained to make sure about getting the loyalty of customers through their service and behavior. The company needs to pay attention to the need of customers so they can get loyal reviews and customers in the market. A person who is given a parcel of personal help or who considers that benefit representatives have taken time to talk with them invitingly may perhaps accept that they have gotten a much superior quality benefit and appreciate not being dealt with cold bureaucratic execution. A marginally longer line may be worth enduring if you are feeling that you get to the front of it, you have got been dealt with the care, regard, and humankind. (Joseph, 2017) Customer care is the prior thing in dealing with customers and to get their loyalty. When a company gives special care to its customers, then customers become their loyal representatives in the market. The market always has faith in customers. When customers would be loyal to its company, it will make the company's position stronger in the market. The client's desires are met by an item or service. Many providers are there to accept that their work is wrapped up once their item is sold into the channel within the starting of the chain of the destination, this can be not sufficient, more is required in this way the investigate advance looked for to see into the significance of client care or retail shops. (Joseph, 2017)

2.6. Customer satisfaction

Customer satisfaction is the core point to have a stronger position in the market as customers are the pillar for a company to stand in the competition of the market. Customers are the priority of the company. They are always in try to meet their customer's needs. Those companies which do not care for their clients' needs, they could not stand longer in the race of the market. Banks may discover themselves in trouble from time to time, either since they damage or select to damage the saves necessities or are confronted with the unexpected nearby conditions that undermine to irritate their operations. So they may either liquidate fewer resources to meet the circumstances. (Mohamed, 2011) When a company could not fulfill the desires and needs of their customers, they are about to lose their customers and their place in the market. When they satisfy their customers by understanding and fulfilling their needs, they have satisfied customers. A satisfied customer will bring another client may go away with the numerous others, performing their work well is what we allude as work performance. (Joseph, 2017) When a company is being established, it is the core point to be understood that what is lacking in the market so we could provide it to attract customers. But when they have a good range of customers, it is obligatory to provide with best so they will bring more to the company when they are satisfied with the company's service. Client care might be seen as serial activities that are planned to upgrade their satisfaction levels. This is often the feeling that the client's desires are met by an item or service. Numerous providers seem to expect that their work is wrapped up once their product is sold into the channel within the starting of the chain of conveyance, this is often not enough more is required hence the inquire about assist looked for to see into the significance of customer care on retail shops. Employees are taken in trust by training them properly that how to attract and satisfy their customers by providing their best to customers. Employees are told to give their best in their training according to TQM. Total Quality Management method copes with the details that how to prepare the worker for getting a high rank in the market in customer satisfaction. Staff is more than an artist than science, but it is inconceivably critical. These ponder looked to investigate how the staff is inspiration influences generation methodology. Impacts of staff inspiration in any company are exceptionally vital and remarkably numerous. It is imagined that the increased motivation within the organization increments the execution of the organization and productivity. (Joseph, 2017) Total Quality Management may be orderly quality improve the approach to firm-wide administration for the reason of making strides execution in terms of quality, efficiency, clients fulfillments, and productivity.

2.7. Relationship between TQM and customer satisfaction

Customers and their satisfaction have a direct relationship with the company and its management. TQM is a method in which a company is told how to educate its employees to get satisfied customers in the market and get a stronger position in the market. TQM devices and methods (corporate arranging, prepare center, data, and investigation) contribute to the effective usage of TQM. Too, they consider finds that the measure of the company (huge or little), the company's appropriation of TQM, and the length of a company's encounter with TQM influence the thoroughness of execution and the coming about the level of quality execution. Be that as it may, the nature of the company (fabricating or benefit) does not appear to have a noteworthy impact on the meticulousness of quality administration usage and level of quality execution. (Brah et al., 2002) The first core point in TQM is to prepare their employees for getting better quality customers in the marketplace. Customers are the leading point in the company's progress. Every company first teaches its workers how to give their maximum effort for gaining the best results and to satisfy its customers. They are provided proper train g and TQM is one of the methods to train employees and workers for attaining better-convinced customers. TQM has been characterized as an "organizational methodology of commitment for moving forward client fulfillment by creating methods to carefully oversee yields quality. Add up to Total Quality Management (TQM) may be logical with the point of view of accomplishing by a large execution. TQM has gotten to be all exclusive key constrain, which may lead to a few benefits; progressed client fulfillments, more noteworthy representative center and inspiration, diminished squander and progressed in general execution. (AGUS, 2004)

2.8. Strategic planning

It is based on the core objectives of the company. It works on the planning of the main objectives of the organization that how to achieve those. It is the associate structure management activity that set priorities, focus energy and assets, support operations, and gives surety to the staff and different sponsors towards operating similar goals, establish an agreement for excellent values, and change the organization's direction as a result to forever ambiances. Furthermore, it is a wellmannered effort in the way of basic choices and actions that transform and guide the true image of a corporation. (Institute, n.d.)

2.9. Tactical planning

It is the planning which takes place at a less wide level than strategic planning. Tactical coming up with an Associate in Nursing management is an extension of management at the higher-up level. Its interval is a smaller amount than one year however not as usual as each day. Analysis of inventory-control limits, coming up with for suppliers improvement, carrier choice, vehicle routing, and programming coming up with for seasonal house and transportation desires are examples of military science coming up with. (Asadi, 2011)

2.10. Operational planning

This planning has a shorter time than strategic and tactical planning. It has a maximum of one week to one year. Operational designing is that the link between strategic objectives of the national health policy, strategy, or arrangement (NHPSP), and also the implementation of activities. It's regarding remodeling the strategic-level arrange into unjust tasks. At this stage, most steps of the NHPSP are completed, and also the budgeting has been done. Operational designing is completed by the budget center and can determine the activities to be doled out to realize the objectives of the strategic arrangement. (Schmets, 2016)

2.11. Organizing

It generates and maintains coherent relationships between human, substantial, financial, and knowledge resources by demonstrating that resources area unit to be used for the required activities and additionally once, where, and the way they're to be used. The organizing implements results in an Associate in the nursing structure that defines correctly the authorities and therefore the responsibilities. Organizational structure is the arrangement of relationships among mixed parts or elements of the organization that commends the relations among varied activities and positions. It defines the system of relations between portions, dynamics, and activities inside the organization. (Satyendra, 2015) Organizing is the most important part to run an organization. Carelessness and the wrong decisions for organizing the matters and management of resources of the organization could lead to a big loss. The organizer is answerable to the manager for his work because he is organizing what is going on in the institute. Wrong organizing could make suffer from the company. Nowadays, various corporations have managed to attain stability between the need for specialization of workers and also the needs of staffs to enjoy jobs that involve diversity and independence. Principles like job upgrading and workers coordination area unit unbroken in mind once coming up with employment description. (Dess et al., 2004)

2.12. Leading

Leading is providing attention and path to others and encouraging them to accomplish structured goals. As possessor and chair of Notes-4-You, you might consider yourself as an Associate in nursing orchestra forerunner. You have got prearranged your choirs (employees) their slice of melody (plans). You have positioned them in divisions (departments) and organized the units (legislative structure) therefore the music can sound nearly as decent as potential. Currently, your job is to knock your stick and leads the orchestra so that its adherents form stunning music together. (Parsons et al., 2016) A leader is someone who makes things clear and helps its employees to know how to achieve the goals. A leader is one who knows the nature of his work and how to push up his work to achieve the goal of his company. He must be aware of his employee’s attitude, nature, morals, and traits. It is directed to behavioral science to know about the behaviors of employees so the manager can take good work from them. Motivational theories and analysis studies provide important info concerning ways to encourage workers to perform profitably. Communication analysis studies provide steering on however managers will communicate effectively and convincingly. (Hunger & Wheelen, 2013) There are so many theories that allow one to be a person who can lead others by knowing their personnel. It is the responsibility of the manager to go through some behavioral science theories so he can run his company in a better way by encouraging and taking good responses in work from his employees.

2.13. Perceived service quality

TQM progress can be seen as benefit quality. Advance in TQM and seen benefit quality but clients are emphatically, but as it were to a restricted degree, connected to trade execution. In any case, this may be due to the common level of quality administration within the segment considered. In common, we conclude that advance in TQM leads to higher commerce execution of the healing center, showing the efficiency/cost-effective, and to a better-seen benefit quality by patients, demonstrating the adequacy. (KUNST,P. & LEMMINK, J., 2000) Quality is examined under TQM. Perceived quality management is a key chain for improving the quality of productivity and employee performance. All the work and productivity are analyzed under the TQM method for the company's success and progress in the market. The suitability of quality administration programs at coming about in upgraded commerce accomplishment has been a major matter of intrigue for commerce and the intellectual world identical. In benefit organizations, customer perceived benefit quality is considered as one of the key determinants of trade execution. The current ponder deeds to look at the impact of add up to quality benefit (TQM) measurements on customer perceived benefit quality. Several reversion investigations have been utilized to examine the relationship between the varied extents of TQM and the variable of benefit quality. They come about have demonstrated that the TQM measurements, as an entirety, are great signs of benefit quality. (Sureshchandar et al., 2002) TQM deals with the give and gains policy. How much employees and company is giving to its customers, they will gain that much in payback. Total Quality Management is used in this research study as a methodological tool to examine the quality of employees and the company's service and the customer's attraction towards the institute. This study will discuss the research gap by working on the service and customer satisfaction in banking sectors by using TQM as a methodological tool.

2.14. Management efficiency

Total Quality Management is a method to deal with employees in a firm or institute and this method is considered one of the effective and better methods to deal with employees for getting better outcomes for the company. Every sector either it is the banking sector or something else, need a management technique to qualify their employees for the sake of getting better results in the market. Most financiers would like to accept that bankers are in the finance division, and not within the benefits industry. Hence they tend to race in the standings of budgetary ability (e.g. asset base, a sum of advances discharged, cash stream, etc) rather than benefit quality. In any case, banks depend on customer satisfaction to precede trade. This sorts them as an overhaul company. When the client interacts with the forward-facing workforce and requires some confident benefits, it is this moment of truth that elects whether the clients will come back and traffic to the neighboring competitor. In this way, banks tend to advantage of the Total Quality Management client, to begin with, witticism. (Essalam et al., 2010) Every company always has its competitors in the market and to make the position stronger. To make the company's position stronger, the institute must have to give maximum to its employees and every company tries to give its best to its customers for gaining better results. The pyramid steps for TQM are shown in figure 2.2. For a company that wants to achieve profitable goals then these optimal levels are a better strategy for them.

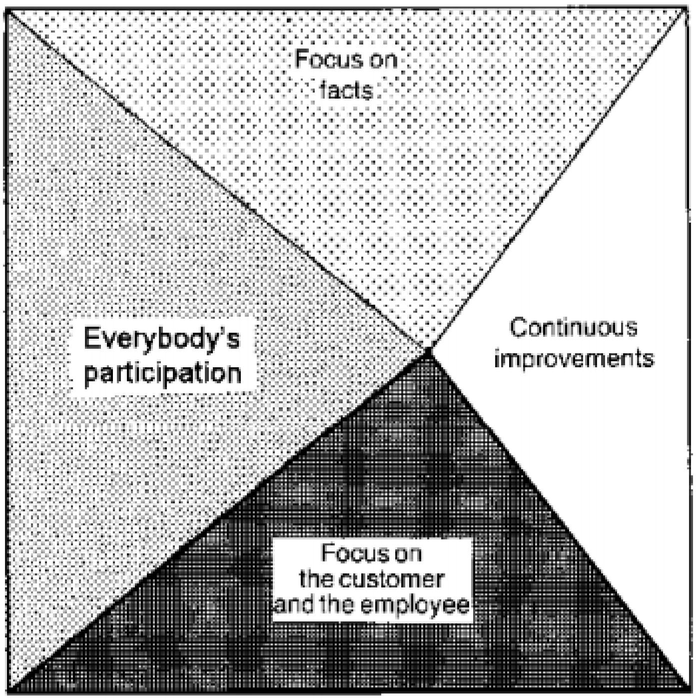


Figure 2.2. TQM optimal pyramid **(Dahlgaard et al, 1995)**

The environment is developed by employees and their trainees. Trainees are always in need of a method to prepare their workers for getting healthier results. Total quality Management includes collaboration and commitment on the portion of the workers and administration, well-conceived preparing, and monitoring, and input frameworks have illustrated that they serve vital parts in relieving workers' resistance to alter. If Total Quality Management succeeds in moving forward execution, the origination's clients may pick up through brought down costs and moved forward fulfillment; its shareholders pickup through made strides returns on the venture, and administration pickup through higher remuneration. (Pattanayak, D. & Maddulety, K., n.d)

2.15. Effects of TQM on culture and quality

The culture of a company decides the input and outcomes of the institute. To make culture effective, there must be a method of administration that will be used to make its employees able to get highly satisfied customers in the market. Employees are asked how to get the attention of customers in the markets by management and management uses techniques to instruct their workers. Client fulfillment is one of the cornerstone concepts in a vital promotion. Its determinant and consequents have been or may be well considered over the final thirty a long time. Not as it was done academicians concede the significance of client fulfillment for a firm's advancement but moreover, specialists and businessmen pay extraordinary consideration to its estimation and administration. The instinct behind the scene that the client's fulfillment is vital. Fulfilled clients tend to illustrate steadfast conduct. (Eklof et al., 2020) TQM is applied by many banking sectors to get a target position in the market full of competitors. Culture is maintained in which customers could be attracted. Benefit quality and aircraft execution can be made strides by concentrating on Total Quality Management enablers. These are motivating forces which can move forward organization execution. To achieve superior comes about in operations will depend on the correct choice and usage of Total Quality Management enablers so that expectations can be met. Choice making within the determination and keeping up the TQM enablers has gotten much attention as of late. Although each criterion is exceptionally imperative to preserve and sustain great client benefit and nearness of multiple criteria and the seeds from the experts will increment the complexity of the right choice of the TQM enablers, but prioritizations may be exceptionally supportive for an organization to execute TQM enablers effortlessly. (Prakash et al., 2015)

2.16. TQM meets requirements

Total quality management is directly related to customers and workers and workers depend on the management and its training. Clients are directly influenced by employees that how they treat them and what product they are introducing them. Clients are always looking for a place where they can meet all their needs and they can find the solution to their problems. Total quality management is used as a method to instruct employees that how to satisfy customers and how to meet up with all their needs with effective quality because quality makes a customer permanent. Fulfillment is the post-purchase assessment of items or administration taking into thought the desires. Analysts are isolated over the predecessors of benefit quality and fulfillment. While a few accept benefit quality leads to fulfillment, most analysts suggest that a tall level of benefit quality ought to be conveyed by the benefits supplier as benefit quality is normally considered a forerunner of client fulfillment. As service quality progresses, the likelihood of customer satisfaction increases. (Shanka, 2012) Satisfied customers are bone for a company to run its business successfully. Banks are the companies, people think of thousands of times before utilizing their facilities. Banks have to provide a better start to their customers so they can pursue their future finance in the same bank in which they take the first step to be facilitated. The bank could be client arranged administration industry. A bank depends upon the client for survival within the advertise. The client is the center and the client benefit is the separating variables. A bank can separate itself from competitors by giving tall quality customers benefits. Adequacy of client benefit is related to the progressive operation. Within the competitive keeping money industry, client fulfillment is considered as the substance of victory. Organizations working in benefit businesses ought to consider benefit quality a key vital issue for the commerce victory. Those benefit suppliers who build up a tall level of benefit quality hold a tall level of client satisfaction. (Karim & Chowdhury, 2014)

2.17. Similarities and differences of the study

This study has have a detailed glimpse of the management styles and methods that how management can be effective to instruct the employees by using different management styles especially Total Quality Management. Total quality management is focused on banking sectors that how this style is effective and fruitful for instructing and managing its employees. This research study has discussed that what is Total Quality Management and how is this technique used in the banking sectors of Pakistan. Today’s hard and harsh competition at a worldwide level in all circles of action forces companies around the world to create supported endeavors in arrange to make strides in their items, administrations, and forms. (Toma, S. G. & Naruo, S., 2017)

This literature review deals that how banking sectors in Pakistan survive in the market of competition by using one of the better techniques of management, Total Quality Management. Every company needs a technique to survive in the market. Pakistan is also having a competitive market where it is a very skillful task to survive and grow up. This review provides an overview that how banks are facing tough times and they are dealing with that by using the Total Quality Management method. In a multifarious and energetic trade atmosphere, supervisors broadly propose cutting edge stratagems. Strategies that would offer support them to settle in the rivalry and offer their consumers modern, attractive, and great quality substance and administrations and at competitive costs. In this setting, add up to value management may be practical and maintainable alternatives that can methodically contribute to a union of the capacity of the organization. (Androniceanu, 2017)

This research study has discussed how TQM is one of the valid and reliable methods to attain customer satisfaction and loyalty by training its employees to entertain clients. The literature review has shed light that is it effective to use Total Quality Management to gain the target in the banking sectors of Pakistan. How is it used and what are the impacts of using this method to gain customer quality in the market, this is what this literature gap has been given a detailed view about.

Figure 2.3. Literature gap points

This chapter encounters with three leading points as shown in figure 2.3 to meet the gap of the literature of this research work. This literature review has viewed that how does Total Quality Management work in the banking sectors of Pakistan to maintain its competitiveness in the market and to gain customer attraction that includes their loyalty, satisfaction, and helping this company to make a stand in the market.

3. METHODOLOGY

This chapter describes the in-depth knowledge of the research approaches to computing the study framework through which the hypotheses are generated. Moreover, the selected population, questionnaire design, sample size, country selection, and sample selection are explained periodically.

This study aims to check the impact of total quality management (TQM) in increasing customer satisfaction which will furthermore check the customer loyalty within the banking sectors in Pakistan.

A quantitative approach was used in this study to collect the data by using a structured questionnaire survey that explained customer loyalty and satisfaction in banking sectors in Pakistan.

This chapter includes the proper methodological approach in different sections.

3.1. Research framework

The conceptual theoretical framework created for this research is shown in Figure 3.1.

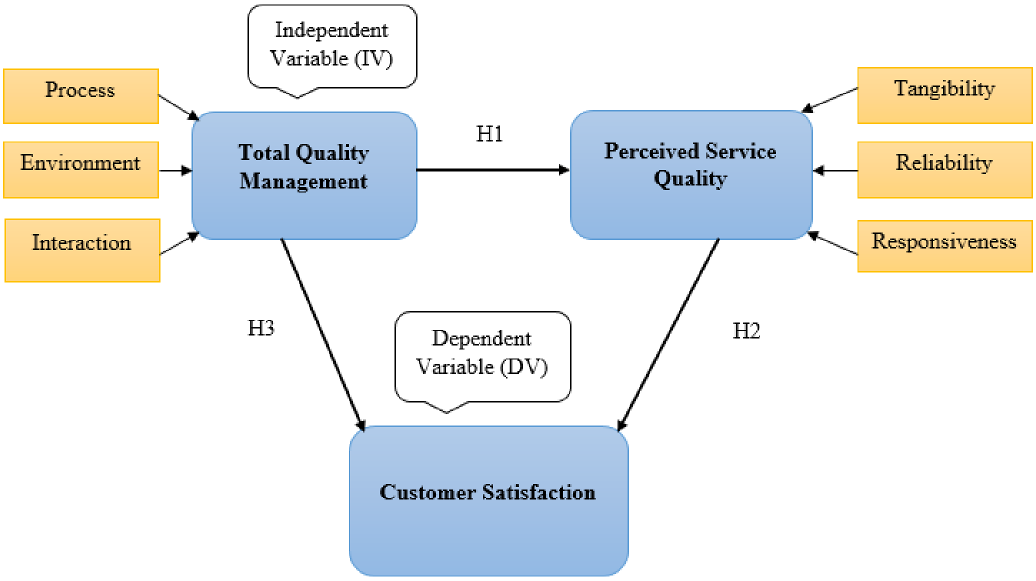


Figure 3.1. Conceptual framework of research

The idea of creating this model was adapted from a previous study on Total Quality Management. (Nguyen & Nagase, 2019) In this model, it shows that there are three main variables (in blue color) interlinked with the help of hypotheses. Where other extraneous variables or factors of main variables (in yellow color) showing the dependence on them. Moreover, TQM is representing as an independent variable (IV) and CS as a dependent variable (DV). Here, PSQ playing the role of consumer loyalty towards a company or industry.

3.2. Target population

This is the main section in any research to select the targeted population. In this study, the banking customers have participated through the researcher's colleagues, friends, and family. For this purpose, the questionnaire is made on Google forms which is a very convenient tool to design a structured survey. Then the researcher distributed it to the target population. There are 40 questions in the researcher's questionnaire and they are grouped into 4 sections. The researcher gets a very impressive response rate, more than 90% for the questionnaire.

3.2.1. Country selection

Like all other Asian countries, Pakistan is a leading and developing country itself. It is considered the hub of Asian trading not only by road and but also by sea. The population of Pakistan on the latest 2020 calculated around 222.5 million as 2.87% of the whole world population. (Pakistan Population, n.d.) Therefore, in this research banking sectors of Pakistan are taken to check their valuable customer's satisfaction on their service qualities.

3.2.2. Sample selection

The sample of this research comprises the people who are related to the banking companies of Pakistan. There are two categories of banking government and private but the overall experience of customers is taken by the researcher. Therefore, the selected samples for this study are the banking consumers who are using their facilities and services on regular basis.

3.2.3. Sample size

It is difficult and time taking to collect the target data from a big populated country. In this regard, some selected areas are considered to be helpful in collecting proficient data. Also, every businessman and job holding persons are using the services of banks in Pakistan.

So, a suitable method is applied to distribute the questionnaires equally among the convenient population. Multiple regions of Pakistan are used by the researcher to compute the sample size collectively.

3.3. Questionnaire design

It is a very important part of every research because all the data and their results depend on it. To design a questionnaire, the following rules must be kept in account always, appearance, content, and validity.

Firstly, the appearance of the questionnaire must be easily readable, short length, simple fonts. As this is the era of technology, everyone is using PC, laptop, and mobile devices, so select the appropriate tools of appearance which could look the same on each device.

Secondly, the content should be meaningful, easily translatable, use simple words taking into consideration of the education level of multiple backgrounds.

Thirdly, the validity of a questionnaire should be logical, matching the reliability with previous literature, using appropriate scaling methods and principle functions to calculate the validity and reliability of the tested data.

Keeping in mind, all these aspects of questionnaire design, the researcher structured a questionnaire survey after reading and relating the previous studies and resources. The previous research studies give you better insights to incline your conceptual model hypotheses and the validity of the proposed questions.

The questionnaire in this research is designed into 4 sections that contain demographics and other constructs which collectively results in 43 questions. The 1st section is for demographics and it contains 3 questions which describe the gender of respondent, age of respondent, and in which bank respondent holds an account. The 2nd section is for TQM and it contains 12 questions which describe the different variable. The 3rd section is for perceived service quality (PSQ) and it contains 16 questions which describes also multiple variables defining customer loyalty. The 4th section is for customer satisfaction (CS) containing 12 questions to engage the satisfaction.

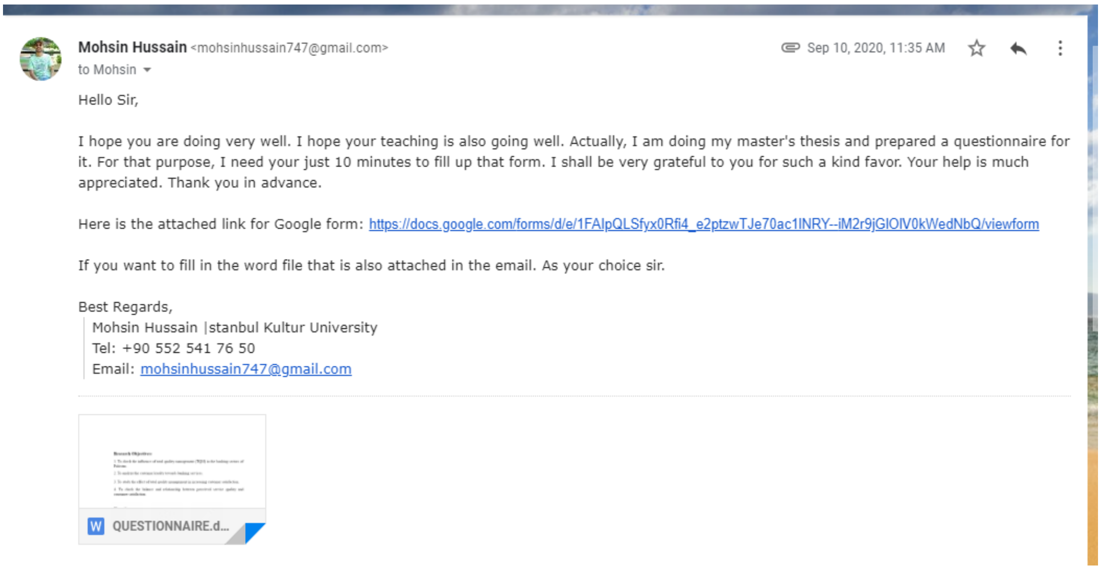
3.3.1. Online Google form

As the questionnaire was made into two versions: the paper version and the online version. The paper version was created by using Microsoft Word and the online version by using the world's most popular professional tool named Google forms as shown in figure 3.2. It is an online form making tool used for creating multiple research surveys and scaling questionnaires. It is used widely by numerous industries and companies over the globe.

Figure 3.2. Online questionnaire

3.3.2. Face validity

The researcher chose convenient and topic related questions in the study, translated the English language into Urdu for the easiness of customers. Then the researcher tested the face validity by sending some samples through email to professionals as shown in figure 3.3. Because in Pakistan, the official language is English but some communities cannot interpret it easily and for them, the questionnaire was translated into the national language (Urdu). After this, the researcher opened the questionnaire to be filled by the participants.



Mohsin Hussain <mohsinhussain747@gmail.com> Sep 10, 2020, 11:35 AM
to Mohsin

Hello Sir,

I hope you are doing very well. I hope your teaching is also going well. Actually, I am doing my master's thesis and prepared a questionnaire for it. For that purpose, I need your just 10 minutes to fill up that form. I shall be very grateful to you for such a kind favor. Your help is much appreciated. Thank you in advance.

Here is the attached link for Google form: https://docs.google.com/forms/d/e/1FAIpQLSfyx0Rfi4_e2ptzwTJe70ac1INRY--iM2r9jGIOlV0kWedNbQ/viewform

If you want to fill in the word file that is also attached in the email. As your choice sir.

Best Regards,
Mohsin Hussain |stanbul Kultur University
Tel: +90 552 541 76 50
Email: mohsinhussain747@gmail.com

QUESTIONNAIRE.d...

Figure 3.3. Sample email sent to professional

3.4. Research analysis methodology

After distributing the questionnaire online, it was remained open to collect responses for 5 weeks and within this duration, the researcher received 200 successful respondents based on different demographics.

Then the data were converted into an excel sheet, where all responses were arranged accordingly. This helped the researcher to transform the data into statistical software named statistical package for social sciences (SPSS) version 20. Before continuing the statistical analysis the responses were checked to remove any incompatible data but luckily all responses were well-matched. The researcher used the Statistical Package for Social Sciences (SPSS) 20 version up to date to analyze the data.

SPSS is a statistical tool that comforts to collect and calculate the data. The compiled primary and secondary data can be entered or arranged as same as Microsoft excel. (Arkkelin, 2014)

Correlation is a numerical tool that calculates how strong a relationship subsists between variables. The numeric range value of correlation is in between -1 and +1. The relationship will be weak if the value of correlation is near to zero. Likewise, the relationship will be stronger and higher if the value of correlation is near to one. It concludes that, association between variables are explained with the help of correlation. (Gupta, S.C. & Kapoor, V.K., 2014) It does not clear which of the variable is a cause and which one is the consequence. Learning of correlation between two variables is known as simple and between more than two variables may be partial or multiple. There are two methods to study the correlation, diagrammatic, and mathematical method. The first one uses the scatter diagram to interpret the data. The second one uses formulae, however, Karl Pearson method is famous among them. (Magnello, 2009) In this research, the mathematic method (Pearson Correlation) is used.

The association between two or more variables can also be measured using regression analysis with the help of an equation named as the regression line. It is obtained by the least square method and is also known as the line of best fit. The least-square method assessment of factors of regression equation by reducing the error sum of the square of dependent. (Kafle, 2019) Regression analysis recognized the nature of the relationship between two or more variables and then evaluates the indefinite variable (dependent variable) with the help of a definite variable (independent variables). In other arguments, there are two categories of variables in a regression analysis. To forecast the variable of interest is known as the independent, and the variable whose value is to be projected is known as the dependent variable. Where regression attempts to explain the affiliation between variables using a mathematical meaning. (Montgomery, 1982) In this research, simple or linear regression is used.

Statistical Package for Social Sciences (SPSS) is being used to test the data under this software. Data that is normal and has hidden things under surface is being tested under SPSS to check the normality of data. The normality tests are complementary to the graphical evaluation of typicality. (Ghasemi, A. & Zahediasl, S., 2012)) Data that is taken from any resource has to be analyzed either data is normal and evaluated under the SPSS normality test statistically or graphically. There are so many subtests that are used under the normality test but SPSS Kolmogorov and SPSS Shiparo are used to analyze the data. Kolmogorov gives the impression elude to either test (but more often than not alludes to the one-sample Kolmogorov test) and had higher to be sustained a strategic distance from. (Van den Berg, 2020)) Kolmogorov is used to analyze statistical data that is taken from the population but not at a vast level. In this research study, Kolmogorov is used to analyze data that is taken from Google forms from the population and that is evaluated to know the validity of data. The Shapiro test looks at in case a variable, is regularly dissolved in a populace. Like so, the Shapiro serves the precise same reason as the Kolmogorov test. A few analysts claim that the last mentioned is more awful due to its lower factual control. Both tests are used to show the importance and legitimacy of a given or taken population.

The description has its meaning in itself as define something or explain something. The description is a detailed overview of a thing. Descriptive statistics are utilized fundamentally to recapitulate the information. SPSS is an accurate program that is used to consume to compute clear statistics. (McPherson, 2001) This method is used to represent data in summarized form to give the conclusion of analyzed and calculated data. In this research study, descriptive analysis is used to summarize the data and data calculation that is evaluated under the described testing software of SPSS. Data is given in a statistical form and analyzed under SPSS software statistically to know the weight, authenticity, and validity of work. The descriptive statistic represents the explained summary of all those. In this research study, descriptive analysis is used to embody the explanation and summary of analyzed data.

All the statistical tests used by the researcher and their results according to the standards are defined thoroughly in upcoming chapter no.4

3.5. Operational builds

After demographics, the 40 questions divided into 3 main sections. The first one, total quality management (TQM), the second is perceived service quality (PSQ and the third into customer satisfaction (CS). The questionnaire was adapted from (Nguyen & Nagase, 2019) and then modified to fit accordingly to the banking industry. In this study, TQM was selected as an independent variable (IV) and its influence was checked on a dependent variable (DV) CS.

The researcher used a Likert scaling method ranging from 1 to 5 to design the questionnaire questions to cover the agreement and disagreement statements of respondents. The scale selected for this research is as follows:

1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

The operational part of the questionnaire contained 40 questions, distributed into 3 parts as shown in table 3.1. Twelve questions related to the TQM: four for the process (PQ1, PQ2, PQ3, and PQ4), three for interaction (IQ5, IQ6, IQ7), and five for the environment (EQ8, EQ9, EQ10, EQ11, EQ12) Sixteen questions related to the perceived service quality: five for tangibility (PST13, PST14, PST15, PST16, and PST17), five for responsiveness (PRN18, PRN19, PRN20, PRN21, PRN22) and six for reliability (PR23, PR24, PR25, PR26, PR27, PR28). Twelve questions related to the customer satisfaction: (CS29, CS30, CS31, CS32, CS33, CS34, CS35, CS36, CS37, CS38, CS39, CS40).

Table 3.1. Operational builds of the questionnaire

	Statements
Total Quality Management	
PQ1	Services were provided on time
PQ2	I was informed when services would be implemented
PQ3	Employees are available when needed
PQ4	Account information and balance inquiry services were provided promptly
IQ5	Employees are polite and friendly
IQ6	Employees always had my best interests in heart
IQ7	Employees understood my specific needs
EQ8	Bank environment is clean and tidy

EQ9	Employees are well dressed and neatly presented
EQ10	Employees are reliable in handling my problems
EQ11	Employees are friendly and courteous
EQ12	Employees show genuine interest in attending to my problems
Perceived Service Quality	
PST13	ATM’s are easily available at public points
PST14	ATM’s work properly whenever I need it
PST15	Online banking option is available in every ATM
PST16	Technology and equipment are up to date
PST17	I was approached by the employees frequently
PRN18	I was provided with adequate information about my account details
PRN19	I was informed quickly regarding my account error
PRN20	Special offers are given to loyal customers
PRN21	The directions of the bank are clear and visible
PRN22	The ambiance of the bank is comfortable
PR23	The account opening process is fast and easy
PR24	A help desk is available for new customers
PR25	The communication of the employees is polite and humble

PR26	The bank meets complete health & safety measures
PR27	All customers are treated equally
PR28	Given services are very easy to understand
Customer Satisfaction	
CS29	I am satisfied with the service quality according to my expectations
CS30	I am satisfied with the professionality and experience of the employees
CS31	I am satisfied with the locations of the bank branches and ATM’s
CS32	I am satisfied with the technology of the bank
CS33	I am satisfied with the customer policy of the bank
CS34	I am satisfied with the help of employees
CS35	I am satisfied with the performance of the bank
CS36	I am satisfied with my account security and privacy
CS37	I am satisfied with the banking system in Pakistan
CS38	I am satisfied with the bank service charges
CS39	How likely do you recommend the overall bank services?
CS40	Based on the recent feature updates, how likely do you recommend?

4. IMPLEMENTATION AND RESULTS

This chapter illustrates the whole image of this research study with in-depth information on various tests on multiples variables. It is considered as a major chapter in the findings of the study.

Firstly, the case processing summary was calculated by using a professional statistical tool name Statistical Package for Social Sciences (SPSS) version 20. Following table 4.1, openly describing that there were no missing data located in the research and it concluding that all the questionnaires filled and responded accurately.

Table 4.1. Case processing summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Total quality management	200	100%	0	0.0%	200	100%
Perceived service quality	200	100%	0	0.0%	200	100%
Customer satisfaction	200	100%	0	0.0%	200	100%

4.1. Normality test

To analyze the normal distribution of the data, the researcher used a famous numerical software Statistical Package for Social Sciences (SPSS) version 20. For this purpose, the normality test was carried out.

Table 4.2, is showing the Kolmogorov-Smirnov and Shapiro-Wilk values. For normal data distribution, the value of significance should be ($p > 0.05$). According to the test, the data is not normally scattered because here the value of p (Sig.) is less than

0.05. Thus, instead of parametric methods, for this study, the non-parametric methods will be used for in-depth statistical research.

Table 4.2. Tests of normality

TQM	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Services provided on time	.305	200	.000	.820	200	.000
Informed when services would be implemented	.281	200	.000	.852	200	.000
Employees are available when needed	.291	200	.000	.835	200	.000
Account information and balance inquiry services were provided promptly	.274	200	.000	.803	200	.000
Employees are polite and friendly	.270	200	.000	.832	200	.000
Employees always had best interests in heart	.219	200	.000	.885	200	.000
Employees understood specific needs	.246	200	.000	.865	200	.000
Bank environment is clean and tidy	.287	200	.000	.803	200	.000
Employees are well dressed and neatly presented	.294	200	.000	.787	200	.000
Employees are reliable in handling problems	.306	200	.000	.821	200	.000
Employees are friendly and courteous	.252	200	.000	.850	200	.000
Employees show genuine interest in attending to problems	.269	200	.000	.861	200	.000
PSQ	**Kolmogorov-Smirnov[a]**			**Shapiro-Wilk**		
ATM's are easily available at public points	.274	200	.000	.819	200	.000
ATM's work properly whenever need it	.226	200	.000	.893	200	.000

Online banking option is available in every ATM	.237	200	.000	.858	200	.000
Technology and equipment are up to date	.251	200	.000	.874	200	.000
Approached by the employees frequently	.230	200	.000	.887	200	.000
Provided with adequate information about my account details	.280	200	.000	.841	200	.000
Informed quickly regarding account error	.235	200	.000	.874	200	.000
Special offers are given to loyal customers	.222	200	.000	.875	200	.000
The directions of the bank are clear and visible	.260	200	.000	.840	200	.000
The ambiance of the bank is comfortable	.253	200	.000	.857	200	.000
The account opening process is fast and easy	.266	200	.000	.853	200	.000
A help desk is available for new customers	.265	200	.000	.859	200	.000
The communication of the employees is polite and humble	.272	200	.000	.846	200	.000
The bank meets complete health & safety measures	.261	200	.000	.867	200	.000
All customers are treated equally	.170	200	.000	.891	200	.000
Given services are very easy to understand	.238	200	.000	.879	200	.000
CS	**Kolmogorov-Smirnov[a]**			**Shapiro-Wilk**		
Satisfied with the service quality according to expectations	.295	200	.000	.842	200	.000
Satisfied with the professionality and experience of the employees	.242	200	.000	.874	200	.000
Satisfied with the locations of the bank branches and ATM’s	.259	200	.000	.866	200	.000
Satisfied with the technology of the bank	.260	200	.000	.864	200	.000

Satisfied with the customer policy of the bank	.234	200	.000	.886	200	.000
Satisfied with the help of employees	.260	200	.000	.859	200	.000
Satisfied with the performance of the bank	.271	200	.000	.845	200	.000
Satisfied with account security and privacy	.269	200	.000	.822	200	.000
Satisfied with the banking system in Pakistan	.289	200	.000	.851	200	.000
Satisfied with the bank service charges	.169	200	.000	.904	200	.000
How likely do recommend the overall bank services?	.261	200	.000	.857	200	.000
Based on the recent feature updates, how likely do recommend?	.294	200	.000	.835	200	.000

a. Lilliefors Significance Correction

4.2. Demographic

In every research questionnaire, demographic is the first segment to know very well your respondents. The researcher included three major categories in this study for calculating the demographic.

4.2.1. Age

The age of respondents is divided into three units. The first part includes the participants who are below twenty-five years of age (Below 25 years). The second part includes participants, who are between the age of twenty-five and thirty (In b/w 25 – 30 years). The third part includes people who are above thirty-five years of age (Above 35 years). According to figure 4.1, the respondents aged between 25-30 years gave maximum response including 107 respondents with a high percentage of (53.5%). On the other hand, youngsters especially participants below 25 years of age responded on the second number including 79 respondents with a middle percentage of (39.5%).

Furthermore, a low ratio of people above 35 years of age participated in this research including 14 respondents with a very low percentage of (7%).

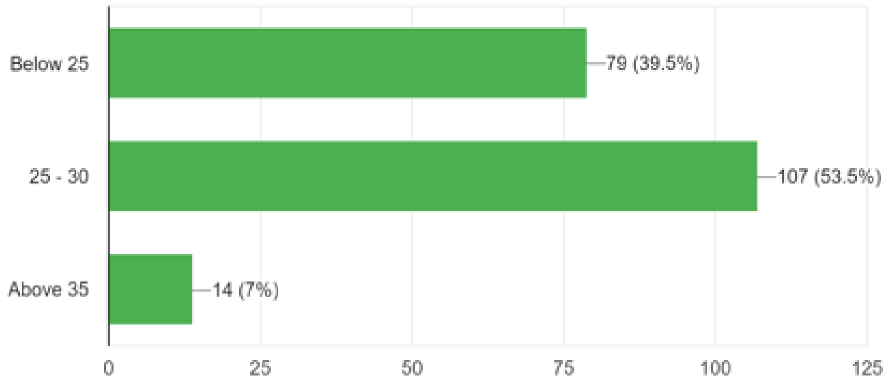


Figure 4.1. Age of respondents

4.2.2. Gender

The gender of respondents was portioned into 2 categories. The first contains the participants who are male and secondly, the participants who are female. In light of figure 4.2, the majority of males participated in this research including a high percentage of (70.5 %). Whereas, the 1/3 part of female participated including the normal percentage of (29.5%).

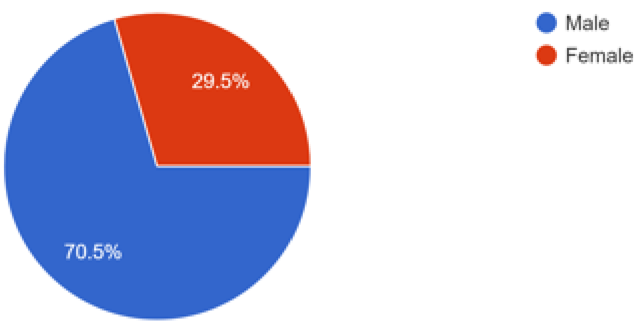


Figure 4.2. Gender of respondents

4.2.3. Bank category

In this study, the bank category is divided into 2 sections. The first unit, those who hold an account in the government banks, and secondly, those who hold an account in the private bank. According to figure 4.3, a very high percentage of participants hold an account in private bank with number of (85.5%). On the other side, few participants hold an account in the government bank with a percentage number of (14.5%).

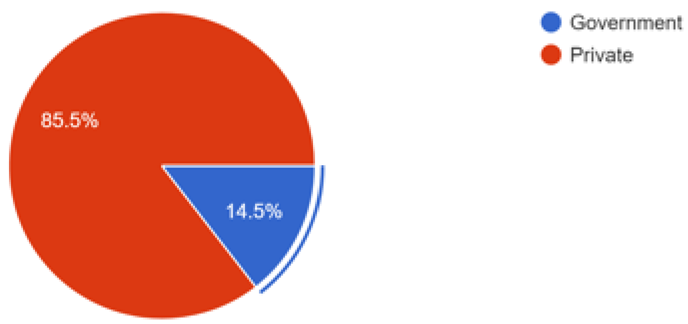


Figure 4.3. Bank category of respondents

4.3. Variables statistics

Following variables were calculated in the study to analyze the collected data.

4.3.1. Total quality management (TQM) analysis

This variable was divided into 3 sections. Process, interaction, and environment were the vital factors of total quality management. To analyze the statistical data, a very famous tool Statistical Package for Social Sciences (SPSS) version 20 was used.

4.3.1.1.Process

This is the first factor in total quality management. The reliability was calculated with the help of Statistical Package for Social Sciences (SPSS) version 20. From table 4.3, the reliability of the data is computed equal to (0.894). It showed the value of Cronbach’s alpha for the process to be very high (excellent).

Table 4.3. Reliability scale for process

Reliability Statistics	
Cronbach's Alpha	N of Items
0.894	4

After this, the descriptive analyses was performed to check the mean of the factors. Table 4.4, shows the descriptive measurement of a process variable. It clearly states that more consumers agreed on account information and balance inquiry services with a high mean number of (3.81). Where the information about implementing services has a low mean value of (3.54). However, the services provided on time and availability of employees when needed illustrate approximate same mean values of (3.62) and (3.61). Collectively, the participants were satisfied at these points.

Table 4.4. Descriptive statistics for process

	N	Min.	Max.	Mean	Std. Deviation
Services were provided on time	200	1.00	5.00	3.6200	1.14550
Informed when services would be implemented	200	1.00	5.00	3.5450	1.17254
Employees are available when needed	200	1.00	5.00	3.6100	1.21047
Account information and balance inquiry services were provided promptly	200	1.00	5.00	3.8150	1.25244

4.3.1.2. Interaction

This is the second factor in total quality management. These items were used to check the interaction between employees and customers. From table 4.5, the value of reliability for interaction is measured to be (0.883). Here the value of Cronbach's alpha is considered as very high (excellent).

Table 4.5. Reliability scale for interaction

Reliability Statistics	
Cronbach's Alpha	N of Items
0.883	3

Table 4.6, shows the descriptive measurement of interaction variable. It clearly states that more consumers agreed on the employees are polite and friendly with a high mean value of (3.63). Where the best interest for clients from employees has a low mean value of (3.34). However, the understanding of specific needs by employees stated a better mean value of (3.42). According to the statistics, the participants were satisfied at these points.

Table 4.6. Descriptive statistics for interaction

	N	Min.	Max.	Mean	Std. Deviation
Employees are polite and friendly	200	1.00	5.00	3.6300	1.21262
Employees always had best interests in heart	200	1.00	5.00	3.3450	1.13243
Employees understood specific needs	200	1.00	5.00	3.4250	1.12280

4.3.1.3. Environment

This is the third factor of total quality management. It dictates the ambiance of the company. From table 4.7, the reliability statistics calculated the value of Cronbach's alpha for the environment to be (0.929). This is considered the highest range of reliable data.

Table 4.7. Reliability scale for environment

Reliability Statistics	
Cronbach’s Alpha	N of Items
0.929	5

Table 4.8, shows the descriptive measurement of environment factor. It clearly states that the majority of respondents agreed on the employee's well dressing and neat presentation with a very high mean value of (3.88). Where the genuine interest in attending problems by employees got less agreement from respondents with a low mean value of (3.39). Overall, the participants agreed and were satisfied with the environment of the banks.

Table 4.8. Descriptive statistics for the environment

	N	Min.	Max.	Mean	Std. Deviation
Bank environment is clean and tidy	200	1.00	5.00	3.8200	1.15075
Employees are well dressed and neatly presented	200	1.00	5.00	3.8850	1.16988
Employees are reliable in handling problems	200	1.00	5.00	3.6550	1.07786
Employees are friendly and courteous	200	1.00	5.00	3.5850	1.18312
Employees show genuine interest in attending to the problems	200	1.00	5.00	3.3950	1.12931

4.3.2. Perceived service quality (PSQ) analysis

This variable was also partitioned into 3 main factors like tangibility, responsiveness, and reliability. This variable is taken into account to analyze the loyalty of the customers towards a company or industry. For this, the same statistical tool Statistical Package for Social Sciences (SPSS) version 20 was used to measure the data.

4.3.2.1. Tangibility

This is the first factor of perceived service quality. From table 4.9, the reliability test measured the value of Cronbach's alpha for the tangibility to be (0.856). This value is considered to be very high (excellent).

Table 4.9. Reliability scale for tangibility

Reliability Statistics	
Cronbach's Alpha	N of Items
0.856	5

Table 4.10, shows the descriptive measurement of the tangibility factor. It clearly states that the majority of respondents agreed on the easy availability of ATM's at public areas employees with a very high mean value of (3.84). Where the respondents less agreed on the frequent approach by employees to them with a low mean value of (3.40). Respondents also agreed on the other points of tangible statistics. Overall, the participants agreed and were pleased with the tangibility of the banks.

Table 4.10. Descriptive statistics for tangibility

	N	Min.	Max.	Mean	Std. Deviation
ATM's are easily available at public points	200	1.00	5.00	3.8400	1.17101
ATM's work properly whenever needed	200	1.00	5.00	3.4400	1.19311
Online banking option is available in every ATM	200	1.00	5.00	3.6350	1.17417

Technology and equipment are up to date	200	1.00	5.00	3.5250	1.10702
Approached by the employees frequently	200	1.00	5.00	3.4050	1.16523

4.3.2.2. Responsiveness

This is the second factor of perceived service quality. From table 4.11, the reliability test measured the value of Cronbach's alpha for the responsiveness to be (0.894). This value is considered to be very high (excellent).

Table 4.11. Reliability scale for responsiveness

Reliability Statistics	
Cronbach's Alpha	N of Items
0.894	5

Table 4.12, shows the descriptive measurement of the responsiveness factor. It clearly states that most respondents agreed on providing enough information about account details with a high mean value of (3.66). Where the few respondents agreed on the special offers given to loyal customers with a low mean value of (3.36). Other respondents also agreed on the ambiance and directions of the bank having near to similar numbers of (3.62) and (3.60). Overall, the participants agreed and delighted with the responsiveness factor.

Table 4.12. Descriptive statistics for responsiveness

	N	Min.	Max.	Mean	Std. Deviation
Provided with adequate information about account details	200	1.00	5.00	3.6600	1.10930
Informed quickly regarding account error	200	1.00	5.00	3.5250	1.19015
Special offers are given to loyal customers	200	1.00	5.00	3.3650	1.30009
The directions of the bank are clear and visible	200	1.00	5.00	3.6050	1.24367
The ambiance of the bank is comfortable	200	1.00	5.00	3.6200	1.11436

4.3.2.3. Reliability

This is the third factor of perceived service quality. From table 4.13, the reliability test measured the value of Cronbach's alpha for the reliability to be (0.905). This value is considered to be the highest near the ending range.

Table 4.13. Reliability scale for factor reliability

Reliability Statistics	
Cronbach's Alpha	N of Items
0.905	6

Table 4.14, shows the descriptive analyses of the reliability factor. It clearly states that most respondents agreed and recorded the communication of employees polite and with a maximum mean value of (3.63). Where other such respondents nearly disagreed on the equal treatment with all customers with a low mean value of (3.07). Other respondents agreed with bank health & safety precautionary measures in the

medium range of mean value (3.55). Generally, the participants agreed with the reliability of the company.

Table 4.14. Descriptive statistics for reliability

	N	Min.	Max.	Mean	Std. Deviation
The account opening process is fast and easy	200	1.00	5.00	3.4350	1.31698
A help desk is available for new customers	200	1.00	5.00	3.4500	1.24711
The communication of the employees is polite and humble	200	1.00	5.00	3.6350	1.12611
The bank meets complete health & safety measures	200	1.00	5.00	3.5500	1.20197
All customers are treated equally	200	1.00	5.00	3.0750	1.37068
Given services are very easy to understand	200	1.00	5.00	3.5000	1.15180

4.3.3. Customer satisfaction (CS) analysis

This is the main dependent variable, which shows the vital change in this research. Customer satisfaction is considered to be the key to success towards a successful company. To analyze in this section, the similar statistical tool Statistical Package for Social Sciences (SPSS) version 20 was used.

From table 4.15, the reliability statistics calculated the value of Cronbach's alpha for customer satisfaction to be (0.960). As this variable has significant reliable data and the value considered to be touching the highest range (excellent).

Table 4.15. Reliability scale for customer satisfaction

Reliability Statistics	
Cronbach's Alpha	N of Items
0.960	12

Table 4.16, shows the descriptive statistics for the customer satisfaction variable. It clearly states that a huge ratio of respondents agreed on a very important point as the account security and privacy with a high mean value of (3.84). Where the respondents nearly disagreed with the bank services charges with a low mean value of (3.08). Collectively, the participants agreed and enchanted with the customer satisfaction variable.

Table 4.16. Descriptive statistics for customer satisfaction

	N	Min.	Max.	Mean	Std. Deviation
Satisfied with the service quality according to my expectations	200	1.00	5.00	3.5750	1.10019
Satisfied with the professionality and experience of the employees	200	1.00	5.00	3.5600	1.20984
Satisfied with the locations of the bank branches and ATM's	200	1.00	5.00	3.6450	1.12486
Satisfied with the technology of the bank	200	1.00	5.00	3.6100	1.04564
Satisfied with the customer policy of the bank	200	1.00	5.00	3.4100	1.19962
Satisfied with the help of employees	200	1.00	5.00	3.5650	1.20958
Satisfied with the performance of the bank	200	1.00	5.00	3.6000	1.24004
Satisfied with my account security and privacy	200	1.00	5.00	3.8450	1.13464

Satisfied with the banking system in Pakistan	200	1.00	5.00	3.5650	1.18014
Satisfied with the bank service charges	200	1.00	5.00	3.0800	1.27740
How likely do recommend the overall bank services?	200	1.00	5.00	3.6200	1.09618
Based on the recent feature updates, how likely do recommend?	200	1.00	5.00	3.6050	1.15135

4.4. Correlation of variables

In this part, the link between the main variables is computed to supervise the correlation among each variable and supporting the created hypotheses in the study.

4.4.1. Correlation b/w TQM and PSQ

To check the relationship between total quality management and perceived service quality the statistical software Statistical Package for Social Sciences (SPSS) version 20 was used.

Table 4.17, is showing the correlation between TQM and PSQ. The Pearson correlation test computed the value to be (0.860). It concludes that there is a positive significant and very strong relationship between total quality management and perceived service quality. Therefore, TQM and PSQ are strongly interlinked with each other.

Table 4.17. Pearson correlation b/w TQM and PSQ

		Total quality management	**Perceived service quality**
Total quality management	Pearson Correlation	1	.860**
	Sig. (2-tailed)		.000
	N	200	200

Perceived service quality	Pearson Correlation	.860**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

4.4.2. Correlation b/w PSQ and CS

To check the connection between perceived service quality and customer satisfaction the statistical software Statistical Package for Social Sciences (SPSS) version 20 was used.

The table 4.18, is showing the correlation between PSQ and CS. The Pearson correlation test computed the value to be (0.927). It concludes that there is a highest positive and strongest relationship between perceived service quality and customer satisfaction. Therefore, PSQ and CS are solidly connected.

Table 4.18. Pearson correlation b/w PSQ and CS

		Perceived service quality	**Customer satisfaction**
Perceived service quality	Pearson Correlation	1	.927**
	Sig. (2-tailed)		.000
	N	200	200
Customer satisfaction	Pearson Correlation	.927**	1
	Sig. (2-tailed)	.000	

	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

4.4.3. Correlation b/w TQM and CS

To check the relationship between total quality management and customer satisfaction the statistical software Statistical Package for Social Sciences (SPSS) version 20 was used.

Table 4.19, is showing the correlation between TQM and CS. The Pearson correlation test calculated the value to be (0.861). It concludes that there is a positive major and very strong relationship between total quality management and customer satisfaction. Hence, TQM and CS are strongly linked with each other.

Table 4.19. Pearson correlation b/w TQM and CS

		Total quality management	**Customer satisfaction**
Total quality management	Pearson Correlation	1	.861**
	Sig. (2-tailed)		.000
	N	200	200
Customer satisfaction	Pearson Correlation	.861**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

4.5. Hypotheses testing

The linear regression analysis and Pearson correlation tests were performed to check the support of research hypotheses. For this purpose, the researcher used the SPSS version 20 tool.

Total quality management has a positive and strong influence on perceived service quality (H1)

According to the research findings, the confidence level was recorded as 95%. It means more people responded in filling the survey and shown a positive and strong relationship between TQM and PSQ. The items included for these two variables in the questionnaire were process (PQ1-PQ4), interaction (IQ5-IQ7), environment (EQ8-EQ12), tangibility (PT13- PT17), responsiveness (PRN18- PRN22), and reliability (PR23-PR28). This hypothesis relationship tested using the Pearson correlation test (2-tailed) and found significant at 0.860 as shown in table 4.20.

Table 4.20. Hypothesis test result for TQM & PSQ

Path	Sig.	Pearson correlation
TQM ↔ PSQ	***	.860

The symbol *** shows that the null hypothesis H0 is rejected at the 0.001 level of significance.

Perceived service quality has a positive and significant impact on customer satisfaction (H2)

According to the research findings, likewise, the population responded in a handsome confidence level of 95% which showed there is a strongly positive and significant bonding between PSQ and CS. The items included for customer satisfaction were from CS29 to CS 40. This hypothesis relationship also tested using the Pearson correlation (2-tailed) test and found highly significant at 0.927 as shown in table 4.21.

Table 4.21. Hypothesis test result for PSQ & CS

Path	Sig.	Pearson correlation
PSQ ↔ CS	***	.927

The symbol *** shows that the null hypothesis H0 is rejected at the 0.001 level of significance.

Total quality management has a significant and strong positive impact on customer satisfaction (H3)

According to the research findings, the main independent and dependent variables indicated an empirical relationship. The confidence level noted in this hypothesis is 95% same as above. This hypothesis exhibited that there is a strong and positive relation of customer satisfaction on independent total quality management at a significant Pearson correlation (2-tailed) value of 0.861 as shown in table 4.22.

Table 4.22. Hypothesis test result for TQM & CS

Path	Sig.	Pearson correlation
TQM ↔ CS	***	.861

The symbol *** shows that the null hypothesis H0 is rejected at the 0.001 level of significance.

In figure 4.4, the variables result showing the standardized coefficient values (in other words correlation indices) in between the proposed construct hypotheses. Furthermore, it representing the reliability of each variable accordingly which is named as Cronbach's alpha in the image.

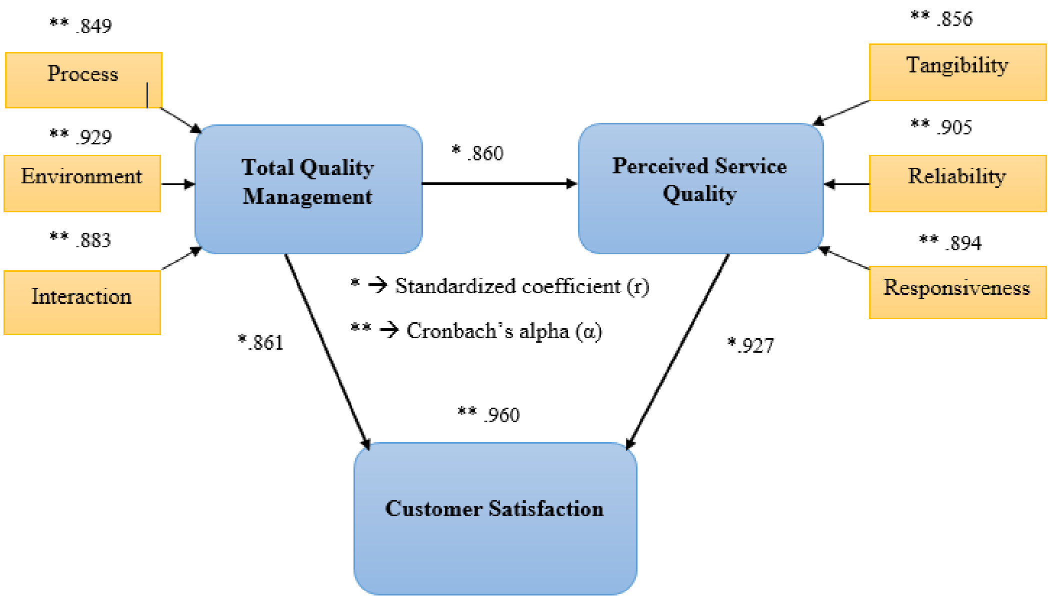


Figure 4.4. Hypotheses findings variables framework

In table 4.23, the results showed that TQM has a significant positive impact on PSQ ($\beta = 1.09$, $P < 0.01$) accepting the first hypothesis. Where, PSQ also disclosed a significant impact on CS ($\beta = 0.743$, $P < 0.01$) accepting second hypothesis. Similarly, TQM exhibited a strong positive impact on CS ($\beta = 0.874$, $P < 0.01$) accepting the third hypothesis of the study.

Table 4.23. Regression analysis for hypotheses testing

Hypotheses	**Path**	**β**	**R^2**	**P**	**Result**
H1	TQM ↔ PSQ	1.09	0.740	***	Accepted
H2	PSQ ↔ CS	0.743	0.860	***	Accepted
H3	TQM ↔ CS	0.874	0.741	***	Accepted

Note: Here (β) indicates the unstandardized coefficient and (R^2) illustrates the variation in the dependent variable due to an independent variable. Where, (P) denotes significance value. The symbol *** shows that the null hypothesis H0 is rejected at the 0.001 level of significance.

5. CONCLUSION

5.1. Chapter summary

This chapter illustrates the framework and conclusion of the research. It collectively helps the banking companies in Pakistan to understand the needs and gain the loyalty of their special customers. It will also help them to improve the management and services negligence's within the company to attain maximum positive feedback and trust from customers.

This chapter is divided into different sections and every section has its importance. For example, a complete overview of the research is explained in the upcoming section 5.2 after which the conclusion and recommendations are described in the next section 5.3 with the help of previous studies and literature review. Likewise, the theoretical and practical implications are elaborated in section 5.4. Future research recommendations are clarified in section 5.5.

5.2. Overview of the study

This study aimed to investigate the impact of total quality management in increasing customer satisfaction. A quantitative approach is used to check the association between the variables of the study such as TQM, PSQ, and CS. All of these constructs helped to analyze the customer satisfaction in the banking sectors in Pakistan through their quality management and services.

Previous literature studies helped in building a theoretical framework. The constructs developed in the light of former research studies and built into a model diagram then used to produce the hypotheses to analyze the relationship between main variables like total quality management, perceived service quality, and customer satisfaction.

After this, a questionnaire survey was designed and distributed online Google forms to the people of Pakistan who hold accounts in the banks. The researcher circulated the survey randomly through personal contacts to regular consumers. The questionnaire was differentiated into two sections simultaneously.

The first section consists of demographics which includes the age, gender and holding a bank account of respondents. On the other hand, the second section is divided into three partitions. The first one focused on total quality management including three extraneous variables process, environment, and interaction. The second one focused on perceived service quality including three extraneous variables tangibility, reliability, and responsiveness. The third one is the main and focused on customer satisfaction.

The data collected, tested, and validated with the help of the famous statistics tool SPSS version 20.

5.3. Conclusion and recommendation

Every research combines its findings and results in the shape of a conclusion. Like that, this study also provides a very good conclusion based on research findings.

In the conclusion, total quality management has a more operative and significant impact in increasing customer satisfaction in the banking sector of Pakistan. The results disclosed that no company or industry can prosper by denying the hard work of their employees because it is said that "every company grows only due to its customers". (Syed Isa, 2020) No doubt, the whole management of a company works efficiently to meet the true needs of a customer but the designated employee pushes more fruitful efforts in enlightening the quality services to their respectful and loyal consumers. The data analysis in this study also supporting previous literature work for (Nguyen & Nagase, 2019) where they served in the medical organization but used regular satisfaction constructs to develop the study.

The hypotheses were calculated and supported this research. The data gained and information gathered through this study has positive and significant implications in the banking industries. The quality services provided by these companies are key points that affect consumer satisfaction through perceived service qualities including tangibility, reliability, and responsiveness, likewise TQM itself independently. Where total quality management has a strong and positive relationship with customer satisfaction. The research framework supported the constructs and accepted them with the help of linear regression analysis. The extraneous variables of TQM also sustained positively. Therefore, banking companies should always cogitate these dynamics in their tactical planning to progress the ratio of customer satisfaction. Those who accountable for maintaining and ensuring quality services should also meet these paradigms.

The values of Cronbach's alpha showed the strong and positive reliability of the data. Moreover, the objectives supporting this research in a significant manner including primary and secondary questions. In conclusion, the total quality management in the banking sectors has a positive and strong relationship with service qualities along with customer satisfaction.

5.4. Implications

According to this research, two main implications could be carried out one is practical and the other one is theoretical.

5.4.1. Practical implication

This study has strong and significant practical implications for the banking industries nationally and internationally. The banking managers who wish to take into account these key features conferred earlier when fetching in strategical planning to enhance customer satisfaction, add significance to the company's reputation, understanding the problems of employees and improve the aptitude in utility to compete in a competitive atmosphere globally.

Similarly, the researchers, who also wishes to enrich service modeling should include these factors.

5.4.2. Theoretical implication

This research explained in detail the service quality factors that impacted the total quality management, perceived service quality, and customer satisfaction. The conceptual framework in the previous literature used for the medical organization to meet the needs of patient customers but that in this study that framework modified to test the relationships for newly developed constructs.

The modified conceptual framework was implemented among the banking sectors of Pakistan to study in-depth the true desires of the respected community. There is no such work done before in Pakistan on this specific topic which means it is the first kind of research using TQM as a base to fulfill customer satisfaction.

Day by day, new businesses arising in the world, and competition is gaining fire to provide the unique and best services to pupils. In such a condition, the banking managers should take a step in developing market competitive strategies and theoretical frameworks to earn the loyalty and trust of their consumers.

5.5. Future recommendations

This study confirmed the proposed construct hypotheses and resulted in a significant positive direction. Following future recommendations would be suggested to enrich more loyalty and satisfaction from customers in the banking companies of Pakistan.

Firstly, every banking company that is not giving attention to modify the strategies towards customers must include the present study quality factors to enhance the profit and gaining healthy feedback from the regular community.

Secondly, the employees must be considered as valuable assets in banking management because they are responsible for making the balance between the customers and the company. If their needs are met effectively then not even a small company would face a loss in profit. There should be yearly or twice in year feedback collected from them as well.

Thirdly, more variables could be added up in the customer satisfaction section to get more real and effective results because wide options provide better results. Not only in Pakistan but also should this strategy be implemented in other country's banking companies.

BIBLIOGRAPHY

Abd Essalam, B., Mabrouk, K., & Samia, L. (2010). Elaboration of Supervision Process Applied to The Pressurized Nuclear Reactor Using Graphical Approach. EDITORIAL BOARD, 4(2), 234.

AGUS, A. (2004, July-August). TQM as a Focus for Improving Overall Service Performance and Customer Satisfaction: an Empirical Study on a Public Service Sector in Malaysia. *Total Quality Management, 15*(5-6), 615-628.

Allana, S. A. (2019). *HBL Annual Report.* Habib Bank Limited.

Androniceanu, A. (2017). THE THREE-DIMENSIONAL APPROACH OF TOTAL QUALITY MANAGEMENT, AN ESSENTIAL STRATEGIC OPTION FOR BUSINESS EXCELLENCE. *Amfiteatru Economic*(44), 61-78.

Appat, B. (2011, December 25). TOTAL QUALITY MANAGEMENT IN BANKING Some Newer Approaches. Pullipparambu, Chelembra, India.

Arkkelin, D. (2014). *Using SPSS to Understand Research and Data Analysis.* Psychology Curricular Materials.

Asadi, S. (2011). Tactical Planning and Control and Decision Analyses. In R. Z. Farahani, *Logistics Operations and Management* (pp. 109-126). ELSVIER.

Barone, A. (2020, July 7). *BUSINESS ESSENTIALS*. Retrieved from Investopedia: https://www.investopedia.com/terms/t/total-quality-management-tqm.asp

Brah, S. A., Tee, S. S., & Rao, B. M. (2002). Relationship between TQM and performance of Singapore companies. International Journal of Quality & Reliability Management.

Chiguvi, D., & Guruwo, P. T. (2017). Impact of customer satisfaction on customer loyalty in the banking sector. International Journal of Scientific Engineering and Research (IJSER), 5(2), 55-63.

Chochoľáková, A., Gabčová, L., Belás, J., & Sipko, J. (2015). Bank customers' satisfaction, customers' loyalty and additional purchases of banking products and services. A case study from the Czech Republic. Economics and Sociology.

Dahlgaard, J. J., Kristensen, K., & Kanji, G. K. (1995). *Total quality management and education. Total Quality Management, 6(5), 445–456.* doi:10.1080/09544129550035116

Dess, G. G., Lumpkin, G. T., & Eisner, A. B. (2008). Strategic management: Creating competitive advantages.

Domingo, R. T. (2003). *TQM IN BANKING*. Retrieved from rtdonline.com: https://www.rtdonline.com/BMA/BSM/7.html

Edoun, E. I. (n.d). APPLICATION of Total Quality Management (TQM) in the South African Banking Sector: The Case of First National.

Eklof, J., Podkorytova, O., & Malova, A. (2020). Linking customer satisfaction with financial performance: an empirical study of Scandinavian banks. Total Quality Management & Business Excellence, 31(15-16), 1684-1702.

Fathima, J. (2016). A STUDY ON TOTAL QUALITY MANAGEMENT (TQM) OF BANKING SECTORS IN MADURAI CITY. *Shanlax International Journal of Management*, 54-61.

Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: a guide for non-statisticians. International journal of endocrinology and metabolism, 10(2), 486.

Gobat, J. (n.d). *Banks: At the Heart of the Matter*. Retrieved from International Monetary Fund: https://www.imf.org/external/pubs/ft/fandd/basics/bank.htm#:~:text=A%20bank's%20most%20important%20role,system%E2%80%94and%20they%20create%20money

Gupta, S.C. & Kapoor, V.K. (2014). *Fundamentals of Mathematical Statistics.* Mumbai: Sultan Chand & Sons.

Hunger, J. D., & Wheelen, T. L. (2013). Essentials of Strategic Management: Pearson New International Edition. Pearson Higher Ed.

Institute, B. S. (n.d.). *Strategic Planning Basics*. Retrieved from balancedscorecard: https://balancedscorecard.org/strategic-planning-basics/

Joe. (2020). *TOTAL QUALITY MANAGEMENT IN THE BANKING INDUSTRY*. Retrieved from iProject: https://iproject.com.ng/business-admin-and-management/total-quality-management-in-the-banking-industry/index.html

Joseph, N. M. (2017). *THE RELATIONSHIP BETWEEN EMPLOYEE TRAINING AND SERVICE PROVISION AMONG RETAIL SHOPS IN NYAHURURU TOWN*. Management University of Africa.

Kafle, S. C. (2019). Correlation and Regression Analysis Using SPSS. *Management,Technology & SocialSciences*, 126 - 132.

Kangal, S. (2017). *Bank Management*. Retrieved from iEduNote: https://www.iedunote.com/bank-management

Karim, R., & Chowdhury, T. (2014). Customer satisfaction on service quality in private commercial banking sector in Bangladesh. British Journal of Marketing Studies, 2(2), 1-11.

Khan, N. (2017). *Continuosly Growing Journey to 500+ Branches.* Lahore: The Bank of Punjab.

Kunst, P., & Lemmink, J. (2000). Quality management and business performance in hospitals: A search for success parameters. Total Quality Management, 11(8), 1123-1133.

McPherson, G. (2001). Applying and interpreting statistics: A comprehensive guide (2nd ed.). New York: Springer-Verlag.

Magnello, M. (2009). Karl Pearson and the Establishment of Mathematical Statistics. *MInternational Statistical Review / Revue Internationale De Statistique*, 3-29.

Mahey, D. (2018, September 26). *Total Quality Management Principles, Concept and Importance*. Retrieved from DrAminu.com: https://draminu.com/total-quality-management-principles/

Mcpherson, D. (2016, March 1). *6 Fundamentals of Business Management*. Retrieved from edX: https://blog.edx.org/6-fundamentals-of-business-management/

Mohamed, I. A. (2011, March 7). Analysis of Impact of Cash Out-Flow from the Banking Sector on the Sudanese Economy. *Banking and Financial Institutions Journal, 3*(29), 1-76. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1767387

Montgomery, D. C. (1982). *Introduction to Linear Regression Analysis.* New Delhi: Willy.

Nguyen, T. L. H., & Nagase, K. (2019). The influence of total quality management on customer satisfaction. International Journal of Healthcare Management, 12(4), 277-285.

Pakistan Population. (n.d.). Retrieved from worldometer: https://www.worldometers.info/world-population/pakistan-population/

Pattanayak & Maddulety. (n.d). Effect of TQM on customer satisfaction in Indian Banking industry: A literature review. *European Journal of Business and Management*, 1-13.

Pettinger, T. (2020). *Purpose of Banks*. Retrieved from EconomicsHelp: https://www.economicshelp.org/blog/glossary/banks/

Prakash, C., Barua, M. K., & Balon, V. (2015). Prioritizing TQM enablers to improve Indian airlines performance under fuzzy environment. Industrial Engineering Journal, 8(8), 28-34.

Rani, A. (2017, November). Role of total quality management in banking sector. *International Journal of Academic Research and Development, 2*(6), 1236-1238. Retrieved from www.academicsjournal.com

S, R. (n.d.). *Total Quality Management Principles*. Retrieved from economicsdiscussion: https://www.economicsdiscussion.net/quality-management/total-quality-management-principles/31865

Satyendra. (2015, August 7). *Organizing – A Management Function*. Retrieved from ispatguru: https://www.ispatguru.com/organizing-a-management-function/

Schmets, G., Rajan, D., & Kadandale, S. (2016). Strategizing national health in the 21st century: a handbook.

Shanka, M. S. (2012, December). Bank Service Quality, Customer Satisfaction and Loyalty in Ethiopian Banking Sector. *Journal of Business Administration and Management Sciences Research, 1*(1), 1-9.

Skripak, S. J. (2016). Fundamentals of business. Virginia Tech.

Sureshchandar, G. S., Rajendran, C., & Anantharaman, R. N. (2002). The relationship between management's perception of total quality service and customer perceptions of service quality. Total Quality Management, 13(1), 69-88.

Syed Isa, S. I. (2020). WOW Your Customers: Tips to Retain Customers. *Journal of Undergraduate Social Science and Technology, 2*(2).

Talib F, Rahman Z, Qureshi MN (2012) Impact of Total Quality Management and Service Quality in the Banking Sector. J Telecommun Syst Manage 1:102. doi:10.4172/2167-0919.1000102

Toma, S. G., & Naruo, S. (2017). Total quality management and business excellence: the best practices at Toyota Motor Corporation. *Amfiteatru Economic Journal*, *19*(45), 566-580.

Van den Berg, R.G. (2020, April 29). *SPSS Kolmogorov-Smirnov Test for Normality*. Retrieved from SPSS Tutorials: https://www.spss-tutorials.com/spss-kolmogorov-smirnov-test-for-normality/

Vincent, M. (2020, August 27). *Huawei smartphones are rated higher than the latest iPhone and Samsung Galaxy models in camera and audio quality tests*. Retrieved from MailOnline: https://www.dailymail.co.uk/sciencetech/article-7730767/Huawei-smartphones-rated-higher-iPhone-Galaxy-camera-audio-quality-tests.html

Vliet, V. V. (2014, March 4). *Total Quality Management (TQM)*. Retrieved from toolshero: https://www.toolshero.com/quality-management/total-quality-management-tqm/

Walters, M. (2020). *A Quality Principle: Everything You Need to Know about Total Quality Management*. Retrieved from smartsheet: https://www.smartsheet.com/total-quality-management

Westcott, R. T. (2013). *The Certified Manager Of Quality/Organizational Excellence Handbook, Fourth Edition.* ASQ Quality Management Division. Retrieved from American Society for Quality (ASQ): https://asq.org/quality-resources/total-quality-management

Writers, S. (2020, June 4). *What is Business Management?* Retrieved from CollegeChoice: https://www.collegechoice.net/faq/what-is-business-management/

APPENDIX A_ INFORMATION CONSENT

QUESTIONNAIRE

The Impact of Total Quality Management in increasing customer satisfaction

The purpose of this study is to check the influence of total quality management on customer satisfaction. The information you are providing will help to improve the service quality of the banking sectors in Pakistan. Moreover, your responses will be purely used for research purposes only. Therefore, there is no need for insecurity about your details. It will be kept confidential.

Please mark "x" in the box provided.

1. What is your age?

20 – 25 ☐	25 – 30 ☐	30 – 35 ☐	35 above ☐

2. What is your gender?

Male ☐	Female ☐

3. In which banking sector you hold an account?

Government ☐	Private ☐

Please use cross "x" in the corresponding box to the level of your answer to agree/disagree according to the following statements.

1. Strongly Disagree	2. Disagree	3. Neutral	4. Agree	5. Strongly Agree

		1	2	3	4	5
1	Services were provided on time	☐	☐	☐	☐	☐
2	I was informed when services would be implemented	☐	☐	☐	☐	☐
3	Employees are available when needed	☐	☐	☐	☐	☐
4	Account information and balance inquiry services were provided promptly	☐	☐	☐	☐	☐
5	Employees are polite and friendly	☐	☐	☐	☐	☐
6	Employees always had my best interests in heart	☐	☐	☐	☐	☐
7	Employees understood my specific needs	☐	☐	☐	☐	☐
8	Bank environment is clean and tidy	☐	☐	☐	☐	☐
9	Employees are well dressed and neatly presented	☐	☐	☐	☐	☐
10	Employees are reliable in handling my problems	☐	☐	☐	☐	☐
11	Employees are friendly and courteous	☐	☐	☐	☐	☐
12	Employees show genuine interest in attending to my problems	☐	☐	☐	☐	☐
13	ATM’s are easily available at public points	☐	☐	☐	☐	☐
14	ATM’s work properly whenever I need it	☐	☐	☐	☐	☐

15	Online banking option is available in every ATM	☐	☐	☐	☐	☐
16	Technology and equipment are up to date	☐	☐	☐	☐	☐
17	I was approached by the employees frequently	☐	☐	☐	☐	☐
18	I was provided with adequate information about my account details	☐	☐	☐	☐	☐
19	I was informed quickly regarding my account error	☐	☐	☐	☐	☐
20	Special offers are given to loyal customers	☐	☐	☐	☐	☐
21	The directions of the bank are clear and visible	☐	☐	☐	☐	☐
22	The ambiance of the bank is comfortable	☐	☐	☐	☐	☐
23	The account opening process is fast and easy	☐	☐	☐	☐	☐
24	A help desk is available for new customers	☐	☐	☐	☐	☐
25	The communication of the employees is polite and humble	☐	☐	☐	☐	☐
26	The bank meets complete health & safety measures	☐	☐	☐	☐	☐
27	All customers are treated equally	☐	☐	☐	☐	☐
28	Given services are very easy to understand	☐	☐	☐	☐	☐
29	I am satisfied with the service quality according to my expectations	☐	☐	☐	☐	☐
30	I am satisfied with the professionality and experience of the employees	☐	☐	☐	☐	☐

31	I am satisfied with the locations of the bank branches and ATM’s	☐	☐	☐	☐	☐
32	I am satisfied with the technology of the bank	☐	☐	☐	☐	☐
33	I am satisfied with the customer policy of the bank	☐	☐	☐	☐	☐
34	I am satisfied with the help of employees	☐	☐	☐	☐	☐
35	I am satisfied with the performance of the bank	☐	☐	☐	☐	☐
36	I am satisfied with my account security and privacy	☐	☐	☐	☐	☐
37	I am satisfied with the banking system in Pakistan	☐	☐	☐	☐	☐
38	I am satisfied with the bank service charges	☐	☐	☐	☐	☐
39	How likely do you recommend the overall bank services?	☐	☐	☐	☐	☐
40	Based on the recent feature updates, how likely do you recommend?	☐	☐	☐	☐	☐