



Arab American University
Faculty of Graduate Studies

**Measuring the Impact of E-Service Quality on
Customer Satisfaction
"An Empirical Study on Banking Services in
Ramallah"**

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**This Thesis was submitted in partial fulfillment of the
requirements for the Master's degree in Quality
Management,.**

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Satisfaction
"An Empirical Study on Banking Services in Ramallah"**

By

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Declarations

The work presented in this thesis, unless otherwise referenced, is the researcher's work and has not been submitted elsewhere for any other degree or qualification.

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Dedication

For every word of support from my family and friends that helped me overcome

frustrating thoughts, thank you.

My mother, my father, my husband, and my precious son, to whom I will dedicate all

my success, I love you all.

Acknowledgment

By the grace and mercy of God, I devote this thesis to everyone who helped me to complete this work. I would like to express my true appreciation to my supervisor, DR. Samah Abu Assab, for giving direction and feedback and for invaluable advice that drove me to successfully complete this study. I would like also to thank the family of the College of Graduate Studies and the department of Quality Management at the Arab American University. Dr. Ashraf Almimi truly does deserve great thanks, since he has introduced me to quality, and for his support and kindness. Finally, my heartfelt gratitude to my family and friends, who have been my most loyal supporters.

Abstract

Nowadays, service organization, particularly banks, are operating in a highly competitive environment. The needs of customers are changing and increasing; thus, much have to be done to meet and exceed customer's expectations. Hence, this study aimed to investigate the impact of e-service quality dimensions on customer satisfaction in banks in Ramallah.

The study model was built based on e-service quality models, and in order to achieve the study objective, the analytical descriptive approach was used, and the questionnaire was used as a data collection tool from the study sample, which were 411 bank's clients. The study results revealed that customers tend to use banking e-services more widely, and they are highly satisfied about the quality of provided e-services at banks. Additionally, it was concluded that all e-service quality dimensions influence the level of customer satisfaction, whereas some service quality factors contribute more than other factors.

So, researcher had recommended banks to regularly and periodically measure both their e-service quality and the level of customer satisfaction, and work hardly to maintain and enhance both levels in order to be able to stay competitive at the market. Also, more efforts should be toward developing capabilities and skills of banking staffs, especially those who are dealing directly with customers, in addition to allocate more budgets to develop the banking technological infrastructure, including mobile applications.

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Chapter 1

Introduction

1.1 Overview

Lately, the development of information and technologies has made the world an integrated community. Many businesses are forced to deliver service quality over the web, including banks, which led to the emergence of fundamental changes in the nature of banking in order to keep pace with these developments and maintain survival and competition. Therefore, banks have to reconsider their traditional role to provide sophisticated banking services. (El Talla et al., 2019).

Subsequently, as customers are the basis of success for any business, it should be made sure that customers are receiving the best service, which will help to strengthen the relationship with customers and will bring new ones. Thus, satisfied customers are the main base to achieve competitive advantage and to increase profit (Lewin, 2009).

Electronic banking services have emerged in light of these developments through many electronic channels, such as ATMs, e-bank, Internet banks, and e-mail center phones, which in turn made it easier for customers to complete their transactions, in combination with reducing costs and increasing the level of efficiency and efficiency, and expand the provision of financial services, and attract new customers. (El Talla et al., 2019).

Palestine was not isolated from this perspective; several banks had launched the smart bank service on mobile devices after the launch of electronic banking services years ago via computers by most of the banks in Palestine. Banks accept this advanced form of services to keep pace with global technological developments around the world in the field of electronic banking services, and the use of electronic banking services has become one of the essential tools of competition among banks (Aliqtisadi, 2016).

Thus, banks have taken significant steps towards the transition from traditional to e-banking services to be able to provide e-banking services in a convenient and safe manner and make it easier for the user to use them around the clock and wherever the client is located (El Talla et al., 2019).

This study aims to explore the impact of the e-service dimensions scale (efficiency, reliability, responsiveness, fulfillment, and privacy) on customer satisfaction. The importance of this topic comes from helping banks in Palestine to improve their banking marketing through enhancing e-banking services. This will lead to customer satisfaction, increasing market share, less cost, and more profit (Al-Hawary and Al-Smeran, 2017). And it will assist in establishing a database of customers, which will help banks in improving e-services.

1.2 Research Problem

Due to the huge technological development, competition between the organization, and particularly banks, is continuously increasing, and as a result, banks have moved rapidly from traditional banking services to e-banking services (Agrawal et al., 2014). This competition is primarily serving the customer and aims to increase customer satisfaction, as they are an important element in the success of any company.

Such changes had also played a role in increasing customer's needs, as well as increasing the requirements needed to reach satisfaction. Customers are becoming more aware and informed about the quality level of services provided by other competing banks; thus, they continuously require more and more.

This is in line with what Pasha et al. (2018) said that the quality of service has a significant impact on customer satisfaction and loyalty to the bank. E-services Banking has

become part of the new technological era, because the provision of E-services Banking is of great benefit to the customer, such as Reduction in cost, time and implementation of many personal services to customers (Miah, 2013)

Consequently, Pasha et al. (2018) agreed that the quality of service has a significant impact on customer satisfaction and loyalty to the bank. Additionally, e-banking services have become part of the new technological era, and the provision of e-banking services is great benefit to the customer, such as reduction in cost, time and implementation of many personal services to customers (Shared, 2019).

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According to Nyoni et al. (2017), the increase in e-service quality may increase customer satisfaction as long as there is trust. While other customers, despite e-services advantages, prefer more personal interaction.

Unfortunately, Conditions in the Occupied Palestinian Territory continue to be characterized by a stalled peace process, political instability, a protracted fiscal crisis, and outbursts of violence in the West Bank and Gaza, political and security tensions, and high levels of deprivation in Gaza due to a crippling blockade (ILO, 2018). Hence, those challenges had put the economic institutions, including banks, in a high competitive and complicated work environment, where customer characteristics are complicated. Thus, hard efforts had to be done to satisfy them.

By focusing on banking sector, this study will assess the e-banking service quality, based on suitable quality dimensions, in order to gain a better understanding of how does the quality of the e-banking service influences customer satisfaction. Thus, this study aims to answer the following question: "What's the impact of e-service quality on Customer Satisfaction among users of e-Banking Services in Ramallah?"

1.3 Research Objectives:

1. Determining the most impacting dimensions of service quality for e-banking evaluation.

2. Determining the way that dimensions of service quality are used to measure the quality of e-banking services.
3. Measuring the overall customer satisfaction at Palestinian Banks in Ramallah.

1.4 Research Questions

1. Which dimensions of service quality are the most important for banks to consider for e-banking evaluation?
2. How can these dimensions of service quality be used to measure the quality of e-banking services?
3. How clients receive and recognize the E-banking service quality dimensions?
4. What is the customer satisfaction level regarding E-banking service at Palestinian Banks in Ramallah?

1.5 Research Hypothesis

- 1. There is a significant effect of dimensions of e-service quality dimensions on customer satisfaction of E-service quality.**

SUB-Hypothesis:

1. There is a statistically significant effect of Efficiency on Customer satisfaction of E-service quality.
2. There is a statistically significant effect of Reliability on Customer satisfaction of E-service quality.
3. There is a statistically significant effect of Responsiveness on Customer satisfaction of E-service quality.

4. There is a statistically significant effect of fulfillment on Customer satisfaction of E-service quality.
 5. There is a statistically significant effect of Privacy on Customer satisfaction of E-service quality.
- 2. There is a significant difference between E-Service Quality and Customer Satisfaction denoted to demographic variables**

1.5 Research Significance

The importance of the study can be highlighted in examining the impact of e-service quality dimensions in reaching customer satisfaction in Palestinian banks, which would enhance the performance of banks, track better customer experience, supports the continuity of providing e-banking services, supports the continuation of the participatory process between the bank and its clients, and meet the needs of customers in a suitable manner to achieve satisfaction towards the services provided

1.6 Research Structure

This research includes seven chapters, and these have been organized as follows:

Chapter one deals with the introduction to the research, including an overview, research problem, research objectives, key questions, research hypotheses, the significance of the research, and research structure.

Chapter two, three, and four address the concepts of services quality and e-service quality, customer satisfaction, and the banking sector in Palestine; in order to deeply understand the critical concepts of the research. In addition to some of the previous studies.

The research methodology and strategy are represented in Chapter 5. In addition, data collection tools and data analysis methods are described.

Chapter six presents data analysis of the quantitative data by using appropriate data analysis methods.

Finally, Chapter seven presents the conclusions of the research, research recommendations, and future research directions.

Chapter 2

Service Quality and E-Service Quality

2.1 Introduction

In the light of recent and rapid technological and economic changes, robust growth in internet access to the entire population has existed. Recent statistics of the Palestinian Central Bureau of Statistics (PCBS) for the year 2017 showed that 27.9% of Palestinian households have a laptop, 51.7% of them have internet access at their homes, and 96.6% have at least one mobile phone at home (PCBS, 2018).

Nowadays, the business world is operating in a continuously changing environment; due to fast technological advancements and developments. Thus, the rise of internet-based services has changed the way that businesses and consumers interact.

Consequently, businesses operating in the service sector are under increasing and continuous pressure to demonstrate that their services are customer-focused and deliver the best performance. Additionally, they are continuously required to understand and measure customer expectations and identify and gaps properly.

Research into service quality areas had gotten academic attention for more than two decades, and it was being recognized as a critical factor in differentiating services and building competitive advantage. Moreover, the preceding literature supports the notion that favorable service quality perceptions lead to improved customer satisfaction and loyalty.

Therefore, Information technology has produced structural changes in the banking sector and provided an opportunity to engage remote banking systems. A few routes have been opened to provide services to customers, such as: ATMs, Internet banking, phone banking, and mobile banking.

So, banks are operating in a very competitive environment where they are offering the same services with the exact cost almost everywhere; therefore, in order to distinguish their services from other banks, banks are looking to increase the efficiency of their e-services (Rostami et al., 2016).

Hence, quality of service is considered a critical success factor for banks to differentiate from competitors, and it is an important tool to maintain their competitive advantage in the marketplace (Al-Azzam, 2015).

2.2 Service Quality and E-Service Quality

Research into service quality areas has gotten academic attention for more than two decades. Today, with increased competition among service providers, service quality has become a popular area for academic studies. It has been recognized as a critical factor in differentiating services, building competitive advantages, and building a supportive relationship with customers (Zeithmal et al., 2002).

Therefore, service quality is an essential concept in the service industry and is more important for financial service providers who have difficulty showing their customers' product differentiation (Al-Azzam, 2015).

Then, nowadays, with the growth of e-commerce, the term "E-service" has recently become a popular research topic, and e-service providers are required to pay more attention to the attributes which customers actually use in their evaluation of e-service quality; thus, they can be able to compete in the competitive market situation.

Additionally, e-service quality is a significant predictor of satisfaction and loyalty. The increase in the level of e-service quality makes e-service providers more appealing, thus

can assist them with achieving higher consumer satisfaction levels and maintenance (Baykal, 2016).

2.2.1 Definition of Electronic Services

The concept of electronic services had emerged due to the rapid expansion of the internet, and it had changed the way companies interact with consumers (Herington and Weaven, 2009). It became a vital source of competitive advantage by enhancing customer relationships, getting services at a lower cost, and achieving excellence in quality.

Rowley and Hsu had defined e-service as "deeds, effort or performances whose delivery is mediated by information technology (including the web, information kiosk, and mobile devices)" (Agrawal et al., 2014).

Also, Boyers et al. (2002) had defined it as "delivering all interactive services via the Internet, and the use of advanced communications and information and multimedia technology". And according to Lemo and Rust (2001), e-service is "a set of business done through information and communications technology" (Al-Hawary and Al-Smeran, 2017).

Consequently, electronic service can be provided via a mobile phone, internet, and self-service centers. According to Akinyele and Olorunleke (2010), it includes several elements: electronic retail, customer support, and service itself, and service delivery.

2.2.2 Definitions of Service Quality

The definition of service quality is an entire evaluation performed by the customer who gets the service (Eshghi et al., 2008). Other researchers have defined the quality of

customer service as the extent to which services meet customers' needs or expectations (Al-Azzam, 2015).

In addition, quality of service was defined as the degree of difference between customers' normative expectations for service and their evaluations of the service's execution (Parasuraman et al., 1994).

Overall, service quality can be defined as "Customer's overall evaluation of a received service and the extent to which service provision process under meet, meet, or over meet their expectations."

2.2.3 Definitions of E-service Quality

E-Service is a service that is provided to a consumer or potential buyer through a website service.

The term "website quality" was originally defined formally by Zeithaml et al. (2002) as: "the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery of product and services" (Sakhaei et al., 2013).

According to Yang (2001), "E-service quality" is a standard of means by which the potential benefits of the internet are realized. Additionally", Santos (2003) had defined e-service quality as "overall customer assessment and judgments in relation to the excellence and the quality of e-service delivery in the virtual marketplace" (Baykal, 2016).

Consequently, e-service quality can be defined as the "difference between the service that a customer or a user of a particular online application expects, and the one actually provided by the application".

Also, Santos had defined e-service quality as "consumers' overall judgment and evaluation of the excellence and quality of e-service offerings in the virtual marketplace." So, e-service quality includes a complete service process experienced by the customer, consisting of pre-website, on-website, and post-website service aspects (Agrawal et al., 2014).

Therefore, electronic service is a self-service by which the service is obtained through mechanical interaction between the applicant and machine, instead of accessing service by speaking to an employee over the phone or behind the desk.

Accordingly, there are many challenges faced by electronic service providers in meeting customers' desires and expectations, as there is no direct contact between employees and customers. Consequently, the website became the basis for interaction between customers and organizations (Al -Hawary and Al Smeran, 2017).

2.2.4 Impacts of Service Quality

Service quality would leave its impact on several aspects of consumer behavior, as it can influence customers' perceived value strongly, satisfaction, revisit, and word-of-mouth intentions.

Consequently, service quality directly or indirectly impacts customer loyalty via satisfaction, according to (Beerli et al., 2004; Lewis and Soureli, 2006; Caruana, 2002; Jamal and Anastasiadou, 2009).

In the context of banking services, Bloemer et al. (1998) revealed that the reliability and efficiency of the provided service impact the level of customers' loyalty (Kranias and Bourlessa, 2013).

2.2.5 Service Quality Gaps

Service quality can be viewed in a structured way called the Gaps. Hence, the customer gaps occur when there is a difference between the customer expectations and perceptions; thus, the organization should close those appearing gaps.

Zeithma et al. (2006) suggested that four types of gaps occur at organization services, which are:

Gap 1: is about knowing what customers want.

Gap 2: refers to not selecting the correct service designs and standards.

Gap 3: refers to not delivering to service designs and standards.

Gap 4: is about not matching performance to promise.

Gap 5: is about not matching the expected service and the perceived service (Molapo, 2008).

2.2.6 Factors Affecting the Growth of E-service

The speed growth in new technology and the emergence of the internet have changed the business landscape. Thus, the growth of e-service in a country depends on many factors such as:

1. The success of internet access.
2. New online service features.
3. Household growth of internet usage.
4. Dependable services to the customers for which they may be relatively satisfied than of manual system of receiving services (Sakhaei et al., 2013).

2.3 E-commerce Activities Available for Internet Users:

As mentioned by Sakhaei et al. (2013), there are four e-commerce activities available to internet users, which are:

1. Shopping.
2. Banking.
3. Investing.
4. Online electronic payment.

2.4 Measuring the Quality of the Website Interface

Many researchers have developed models to measure the quality of website interface, as follows:

Table (1): Quality of Website Interface Models. Source: (Wolfinbargera and Gilly, 2003).

#	Model	Developers	Year	Dimensions
1	WebQualTM	Loiacono et al.	2002	<ol style="list-style-type: none"> 1. Informational fit-to-task 2. Interactivity 3. Trust 4. Response time 5. Ease of understanding 6. Intuitive operations 7. Visual appeal 8. Innovativeness 9. Flow/emotional appeal 10. Consistent image 11. Online completeness 12. Better than alternative
2	SITEQUAL	Yoo and Donthu's	2001	<ol style="list-style-type: none"> 1. Ease of use 2. Aesthetic design (site creativity with multimedia and color graphics) 3. Processing speed (promptness of online processing and interactive responsiveness to consumer requests) 4. Security of personal and financial information.

#	Model	Developers	Year	Dimensions
3	Attitude toward the site "AST."	Chen and Wells	1999	<ol style="list-style-type: none"> 1. Website relationship building 2. Intentions to revisit 3. Satisfaction with service 4. Comfort in surfing 5. The judgment that surfing the website is a good way to spend time
4	Electronic commerce (EC)	Liu and Arnett	2000	<ol style="list-style-type: none"> 1. Information and service quality 2. System use (including ease of use and privacy) 3. Playfulness and system design quality (including processing speed) 4. A balance between security and ease-of-use for payment method

2.5 Measurement of E-service Quality

Many methods can be used to measure the e-service profile of any organization, and the most known methods are:

1. WEBQUAL, which Loiacono, Watson, and Goodhue developed in 2002.
2. E-SERVQUAL, which Zeithaml, Parasurman, and Malhotra developed in 2002.
3. ETailQ, which was developed by Wolfinbarger, and Gilly in 2002.
4. E-S-QUAL, which was developed by Parasuraman, Zeithaml, and Malhotra in 2005.

Additionally, many methods depend on measuring the commercial performance of a website, such as the number of clicks or purchase orders generated by the website. (Agrawal et al., 2014).

2.6 Web Usability

Simply, usability refers to the "quality in use," which means how users understand and use a product or a system with minimum effort. Accordingly, International Organization

for Standardization (ISO-9421, 1998) defines usability as "the extent to which specified users could use a product to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use," and it considers effectiveness, efficiency, and satisfaction as the three dimensions of usability.

Hence, Agarwal and Venkatesh (2002) had defined web usability as "the extent to which specified users can use websites to achieve specified goals to visit with effectiveness, efficiency, and satisfaction in a specified context of website use." So, websites that are designed with the users in mind are the ones that are usable at the end of the day.

Consequently, the three components or characteristics of web usability are:

1. Effectiveness: this refers to the accuracy and completeness by which online users can achieve their intended goals from visiting the website.
2. Efficiency: refers to the resources expended by the customer to achieve his intended goals while visiting a website. Efficiency can be reached when a customer can achieve goals with a quick visit without putting forth much cognitive effort.
3. Satisfaction: This refers to the pleasant degree to which a customer feels when he is using the website, and most of the time, if any website fulfills the above list of characteristics, and then it has a high likelihood of satisfying the user (Kebkab, 2012).

2.7 E-Services Quality Models

With the increased adoption of e-service in the business field, and as the channels of service delivery shifted from traditional to electronic, the need for a scale to measure the

e-service quality was felt. Thus, numerous systems and models are dealing with the evaluation of the e-service quality (Firdous, 2017).

The researcher had viewed many studies such as (Sakhaei et al., 2013), (Kumar and Dash, 2015), (Al-Azzam, 2015) and (Baykal, 2016), and had summarised them in the following table the major models that have been established and used to measure the e-service quality:

Table (2): E-service Quality Models.

#	Model/ Study	Developer/s	Year	Dimensions
1	A confirmatory factor analysis of the end-user computing satisfaction instrument	Doll and Torkzadeh	1988	1. Content 2. Accuracy 3. Format 4. Ease of use 5. Timelines
2	SERVQUAL	Parasuraman, et al.	1988	6. Tangibles 7. Reliability 8. Responsiveness 9. Empathy and security
3	E-SQ (e-service quality model through Web Sites)	Zeithmal, et al.	2002	1. Information availability 2. Ease of use 3. Privacy/security 4. Graphic style 5. Reliability
4	E-servqual measure for electronic service quality	Zeithaml, et al.		1. Efficiency 2. Reliability 3. Fulfillment 4. Privacy 5. Responsiveness 6. Recovery 7. Contact
5	Web Qual,	Lociacono, et al.	2002	Measurement of website quality by using 12 dimensions
6	E-tail	Wolfenberger and Gilly	2002	1. website design 2. reliability 3. security/privacy 4. customer service
7	Consumer perceptions of internet retail service quality	Janda, et al.	2002	1. Performance 2. Access 3. Security 4. Sensation 5. Information quality.

#	Model/ Study	Developer/s	Year	Dimensions
8	Dimensions of e-quality	Madu and Madu	2002	<ol style="list-style-type: none"> 1. Performance 2. Features 3. Structure 4. Aesthetics 5. Reliability 6. Storage capacity 7. Serviceability 8. Security and system integrity 9. Trust, responsiveness, 10. Product/service differentiation 11. Web store policies 12. Reputation 13. Assurance 14. Empathy
9	Internet retail service quality	Trocchia and Janda	2003	<ol style="list-style-type: none"> 1. Performance 2. Access 3. Security 4. Sensation 5. Information
10	A model of virtual service quality dimensions	Santos	2003	<ol style="list-style-type: none"> 1. Incubative dimension: <ul style="list-style-type: none"> – Ease of use – Appearance – Linkage content 2. Active dimension <ul style="list-style-type: none"> – Reliability – Efficiency – Support – Communication – Security – Incentive
11	Online service quality dimensions and their relationships with satisfaction	Yang and Fang	2004	<ol style="list-style-type: none"> 1. Reliability 2. Responsiveness 3. Competence 4. Ease of use 5. Security 6. Product portfolio
12	Service quality dimensions in internet banking	Saha and Zhao	2005	<ol style="list-style-type: none"> 1. Efficiency 2. Reliability 3. Responsiveness 4. Fulfillment 5. Privacy 6. Communications 7. Personalization 8. technology update 9. logistic/technical equipment

#	Model/ Study	Developer/s	Year	Dimensions
13	E-S-QUAL and E-RecS-QUAL	Parasuraman, et al.	2005	1. 22 items for the E-S-QUAL scale in four dimensions <ul style="list-style-type: none"> – Efficiency – Fulfillment – system availability – privacy 2. 11 items for the E-RecS-QUAL scale in three dimensions: <ul style="list-style-type: none"> – responsiveness – compensation – contact
14	Perceived e-service quality: measurement Validity and effects on consumer satisfaction and website loyalty.	Cristobal, et al.	2007	1. Web design 2. Customer service 3. Assurance 4. Order management
15	Measuring service quality in e-retailing	Collier and Bienstock	2009	1. Process 2. Outcome 3. Recovery
16	The antecedents and consequents of relationship quality in internet shopping	Chung and Shin	2010	1. Convenience 2. Site design 3. Informativeness 4. Security

It has been argued that there is a broad consensus among researchers that there are **five main dimensions** for service quality, which are: tangibles, reliability, responsiveness, assurance, and empathy.

In particular, **tangibles** indicate customer perceptions of the service provider's physical evidence, while **reliability** is associated with the accurate performance of the service. Likewise, **responsiveness** reflects employees' willingness to help their customers, whereas **assurance**, on the other hand, is tied to employee behavior and competence. **Empathy** is related to client views of the service provider's attention to the customer. (Kranias and Bourlessa, 2013).

2.8 Integrating E-service Among Banking Sector "E-Banking":

Banks are operating in a very competitive market where they offer the same services with relatively the exact cost almost everywhere; therefore, to differentiate their services from other competing banks, they are looking to increase their e-services (Rostami et al., 2016).

Thus, E-banking has become a crucial phenomenon in the banking business, and it will continue as more information technology advances, and improvements are produced (Sakhaei et al., 2013). E-Banking is also called Internet banking, online banking or PC banking, and according to Pikkarainen et al. (2004), internet banking can be defined as an "Internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments" (Khalil, 2011).

A review on Internet banking e-service quality dimensions shows that besides the dimensions used in ESERVQUAL, some researchers noted site aesthetics, assurance, and personalization as dimensions to be considered.

Hence, Joseph et al. (1999) indicated that internet banking e-service quality in the USA has three dimensions: Efficiency, Contact, and Customizations.

Also, Noel and Jeremy (2005) found efficiency to be a significant component of Internet banking e-service quality in Hong Kong. The same finding was indicated by (Kenova and Jonasson, 2006) in Sweden.

Moreover, Yu-Lung Wu et al. (2008) indicated Efficiency, Fulfillment, System Availability, Privacy, Contact, Compensation, Site Aesthetics, and customization to be a major dimension that constitutes Internet banking e-service quality in Taiwan (Agrawal et al., 2014).

2.8.1 Internet Banking Portal:

The wide popularity of using the internet and technology in almost all life aspects has led to change in customer needs and satisfaction requirements in all sectors. The banking sector has been undergoing tremendous transformation, and it has experienced new technological innovations such as the internet banking portal.

The use of the internet banking portal means that all stages of financial transactions can be processed electronically, and personal interaction and physical facilities are replaced with technological solutions. Thus, customers can carry out different financial transactions at one site, including paying bills, booking railway and air tickets, charging mobile phones, donating money, paying taxes, filing the tax return, viewing bank statements, purchasing financial products (such as stocks and insurance).

Hence, it is important to identify and measure the dimensions of portal quality, key service quality dimensions, and customers' perception of the internet banking portal. In turn, this will lead to improve customer satisfaction, build customer trust, and create loyal customers (Halvadia and Halvadia, 2018).

2.8.2 Benefits of Integrating E-service Among Banking Sector

Internet Banking has been considered as the main way to:

1. Reduce cost, specifically operational costs.
2. Maintain or enhance services for consumers.
3. Thus, retain and expand the customer base.
4. Internet is the least expensive delivery channel for banking products as by using the internet as a channel of delivering services- banks can reduce the number of its operating branches as well as the number of required staff. (Firdous, 2017).

Also, e-banking services would particularly be helpful for old and sick individuals and customers who live in the outskirts or in small towns without banks. Consequently, it helps in avoiding bank trips and time in queues; from the bank's viewpoint, e-banking effectiveness increases, and operational expense decreases (Kumar et al., 2020).

2.9 Models of Internet Banking Service Quality

The banking industry was going strongly to adopt and integrate technology in its operations and shift from traditional to electronic services delivery. Thus, this trend was also a significant issue among researchers.

E-banking offers customers more options to approach their financial data and make financial transactions whenever and any place. Then, they would have better control of overseeing accounts and budgets and arranging their money-related records, which in turn helps reduce costs.

According to Halvadia and Halvadia (2018), a set of researches was conducted in the field of measuring the quality and customer satisfaction of internet banking, such as:

Table (3): Measuring the Quality and Customer Satisfaction of Internet Banking Models.

#	Model/ research	Developer/s	Year	Dimensions
1	The key determinants of internet bank service quality: a content analysis.	Jun and Cai	2001	<ol style="list-style-type: none"> 1. Reliability 2. Responsiveness 3. Competence 4. Courtesy 5. Credibility 6. Access 7. Communication 8. Understanding the customer 9. Collaboration 10. Continuous improvement 11. Content 12. Accuracy 13. Ease of use 14. Timeliness

				15. Aesthetics 16. Security 17. Diverse features
2	Service quality in internet banking: the importance of customer role.	Broderick and Vachirapornpu	2002	1. Reliability 2. Efficiency 3. Responsiveness 4. Assurance 5. Ease of use 6. Information.
3	The measurement of end-user computing satisfaction of online banking services: empirical evidence from Finland	Pikkarainen et al.	2006	1. Content 2. Accuracy 3. Format 4. Ease of use 5. Timeliness
4	Internet banking and quality of service: perspectives from a developing nation in the middle east	Sohail and Shaikh	2008	1. Efficiency 2. Security 3. Fulfilment 4. Responsiveness.
5	Exploring e-service quality: a study of Irish online banking.	Loonam and O'Loughlin	2008	1. Web usability 2. Security 3. Information quality 4. Access 5. Trust 6. Reliability 7. Flexibility 8. Responsiveness 9. Self-recovery 10. Personalization/customization
6	An examination of the relationship between service quality dimensions, overall internet banking service quality, and customer satisfaction: A New Zealand study.	Rod et al.	2009	1. Online customer service quality 2. Online information system quality 3. Banking service product quality
7	Service quality evaluation in internet banking: an empirical study in India	Khan et al.	2009	1. Reliability 2. Accessibility 3. User-friendliness 4. Privacy/security 5. Efficiency 6. Responsiveness 7. Fulfillment.
8	Exploring customer perception of e-banking services	Chuang and Hu	2010	1. Transaction technicalities 2. Decision-making convenience 3. Interactive interrogation 4. Specialty information 5. Security 6. Exploration
9	Customer satisfaction factors (CSFs) with online	Sadeghi and Hanzae	2010	1. Convenience 2. Accessibility

	banking services in an Islamic country, Iran			3. Accuracy 4. Security 5. Usefulness 6. Image 7. Web site design
10	E-service quality dimensions and their effects on e-customer satisfaction in internet banking services.	Zavareh et al.	2012	1. Efficiency 2. Availability 3. Responsiveness/ contact 4. Ease of use 5. Fulfillment 6. Security/trust.

Hence, Halvadia and Halvadia (2018) had grouped the dimensions into ten groups, by which each group contains common dimensions together. Thus, the ten groups and their description are the following:

1. Information quality: the group of dimensions which is related to the ability of internet banking portal to provide sufficient, real-time services, in addition to accurate information and valid hyperlink
2. Web site design: which includes visually appealing, well-designed pages, proper size and colour of fonts, well-labelled hyperlink, and easy browsing
3. Ease of use: includes navigation and connecting easily with other related websites
4. Reliability: involves providing correct services at the first time to users, and accessibility of internet banking portal from anywhere and at anytime
5. Security and privacy: include the protection of personal information of users and protecting users from the risk of fraud and financial loss, which may result from using the financial information of their financial cards
6. Interactive interrogation: which include the ability to share opinions and information, ask problem or query, and ability to apply electronic complaint
7. Personalization/Customisation: This is related to the ability to provide customized or personalized services to users, which may include providing a recommendation

of financial and non-financial products to users as per their personal needs, providing personalized investment tips, and responding to customer queries.

8. Basic Service Quality: this involves dimensions of service quality of classic bank processes such as payment processing (cash management, transfers, viewing bank statements), online requests for a credit card, debit card, checkbook or loan, online stock trading, and online fixed deposit facility.
9. Other Financial Products' Service Quality: includes availability and performance of financial products like insurance and mutual fund.
10. Added Values which is related to entertainment and non-financial products' services, which may include connectivity with social networks, availability of newsroom and chat room, railway or airline ticket reservation, hotel reservation, online shopping, donation facilities, paying bills online, TV and data card, and paying income tax.

Chapter 3

Customer Satisfaction

3.1 Introduction

The intangible elements of a service, which are: inseparability, heterogeneity, and perishability, are the critical determinants that are influencing its quality. This means that the provider must define a service in terms of its characteristics to understand how the consumer perceives service quality (Douglas and Connor 2003; Parasuraman et al., 1985; and Ladhari, 2008, p.172).

The contrasts in service industries are based on the characteristics of service, which incorporate; intangibility, heterogeneity, perishability, and inseparability. Intangibility implies there is no physical item, nothing to be touched, tasted, noticed, or listened to before being acquired. Therefore, it is difficult for the consumer to understand the nature of what they receive. Furthermore, heterogeneity is related to the distinction between delivery of service due to the distinction in human behavior of those advertising services and the customer. Besides, perishability means that, since services cannot be stored for later usage when they are produced and consumed simultaneously, if the service is not used then, it cannot be used again (Daniel and Berinyuy, 2010).

Every business organization's success is dependent on the satisfaction of its customers, and a business that is succeeding to satisfy its customers will remain in the top positions in a market. Today's business understands that customer satisfaction is critical to the company's success. At the same time, it is critical in raising its market value.

Customers, in general, are those who purchase goods and services from a market or business that suit their needs and wants (Khadka and Maharjan, 2017).

Thus, Customer satisfaction was defined because of a cognitive and affective evaluation, where some comparison standard is compared to the actual perceived performance.

Hence, in the case of perceiving a product/service that is less than expected, customers will be dissatisfied. On the other hand, if the perceived product/service exceeds expectations, customers will be satisfied (Sakhaei et al., 2013).

The importance of customer satisfaction in today's dynamic business environment is evident as it critically influences customers repurchase intentions; simultaneously, dissatisfaction has been seen as a primary reason for customers' intentions to switch. Satisfied customers are most likely to share their positive experiences with five or six people around them, and happy customer is like free advertising.

In the banking industry, the relationship between the customer and the service provider is a key element of customer satisfaction. Service quality is commonly noted as a critical prerequisite for satisfying and retaining valued customers (Mohsan et al., 2011). Additionally, by satisfying customers, banks will be able to retain and reap maximum benefit from this relationship, which leads to higher rates of profit and customer retention, which has become one of the most important goals of the marketing strategy of any bank (Njoki, 2012).

3.2 Defining Customer Satisfaction

By reviewing the literature, the researcher noted a diversity of definitions for customer satisfaction. Customer satisfaction had become a focus of academic marketing research since Cardozo's (1965) initial study of customer effort, expectations and satisfaction, and it refers to "the summary psychological state resulting when the emotion

surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience" (Bao, 2015).

Njoki (2012) had noted the definition of Kotler et al. (2002), which is a person's feeling of joy or disappointment that results from comparing the perceived characteristics of a product or result with the person's expectations.

Additionally, Kang et al. (2004) had described customer satisfaction as a subjective evaluation of the outcomes and experiences associated with consuming or using a product or service; thus, satisfaction exists when customer expectations are fulfilled or surpassed, and the purchase choice is reinforced (Njoki, 2012).

As well, satisfaction refers to the feeling or attitude toward a product or service after it has been used (Yacob et al., 2016).

Satisfaction can also be defined as "a judgment that a product or service feature, or the product of service itself, provided or (is providing) a pleasurable level of consumption-related fulfillment, including levels of under-or-over fulfillment" (Ilieska, 2013).

So, customer satisfaction means customer judgment and feeling about the product or service characteristics and features and how and where they get it.

Consequently, Oliver had classified satisfaction into two types: transactional and overall or (cumulative) satisfaction. Hence, transactional satisfaction reflects a specific purchase occasion, while the overall satisfaction reflects the accumulated experience and impressions for the product or service, and it can be a better predictor of customer loyalty (Bao, 2015).

3.3 The importance of Customer Satisfaction

Customer satisfaction is a key factor that affects any operating business. According to LaBarbera and Mazursky (1983), "satisfaction influences repurchase intentions whereas dissatisfaction has been seen as a primary reason for customer defection or discontinuation of purchase." Additionally, JochenWirtz (2003) noted that customer satisfaction might lead to creating a customer who is more likely to come back to repurchase and generate customer loyalty and introduce the product to other people around them. Consequently, this will lead to an increase in the long-term profitability of the company.

On the other hand, dissatisfaction can also leave effects on many business aspects. Hoyer and MacInnis (2001) stated that dissatisfied consumers could decide to:

- Stop buying the good or service.
- Complain to the firm or to a third party and consider returning the item.
- Engage in negative word-of-mouth communication (Phuong, 2017).

Unfortunately, often dissatisfaction about one particular feature of service leads to dissatisfaction about the service as a whole, even if the satisfaction level about the other features is high (Ilieska, 2013).

So, customer satisfaction can have direct effects on repurchase intentions and customers' positive word of mouth, which will, in turn, affect customer loyalty, competitive business advantage, and revenues.

3.4 Difficulties Associated with the Concept of Satisfaction

According to Abdullah and Rozario (2009), the level of customer satisfaction maybe influenced by several internal and external factors, making it difficult to measure and

determine the level of satisfaction. So, it is not a static process, but it keeps on changing by each time the customer experiences the service.

In the same vein, Communities Scotland cited in the European Institute of Public Administration (2008) has listed the following as the difficulties associated with the concept of satisfaction:

- It is not static, and it changes over time; with new experiences and levels of awareness.
- It is likely to be complex and the result of a mix of experiences before, during, and after the point at which it is measured.
- It is highly connected with social contexts, which are changing and varied, and may be unpredictable or inexpressible to the service user.
- It may be difficult to express the reasons for satisfaction, mainly where less tangible aspects of services are being considered.
- It may be easier to express the reasons for dissatisfaction, mainly if this is an exceptional state.
- Without understanding the causes of satisfaction, there is a danger that we might treat a “good result” as a reason not to change anything (Mensah, 2010).

3.5 Customer Satisfaction Measurement Techniques

There has been a lot of approach to customer satisfaction as well as many ways to measure customer satisfaction. Kotler and Keller (2006) had highlighted some of the techniques to measure satisfaction as:

1. Periodic surveys tracking customer satisfaction directly

2. The customer loss rate. Thus, customers who have stopped buying should be contacted, and their feedback would help design winning back strategies.
3. Mystery shoppers posted to service provision halls to pose as customers and report back on strong and weak points experienced.
4. Suggestion and complaints boxes (Njoki, 2012).

In 2001, Bel and Chiao stated that product quality, service quality, and price are fatal factors that influence customer satisfaction. Consequently, Zeithaml and Bitner (2000) proved that customer satisfaction is not only influenced by product and service quality and price but also by situation factors and personal factors. The figure below illustrates Zeithaml and Bitner's theory.

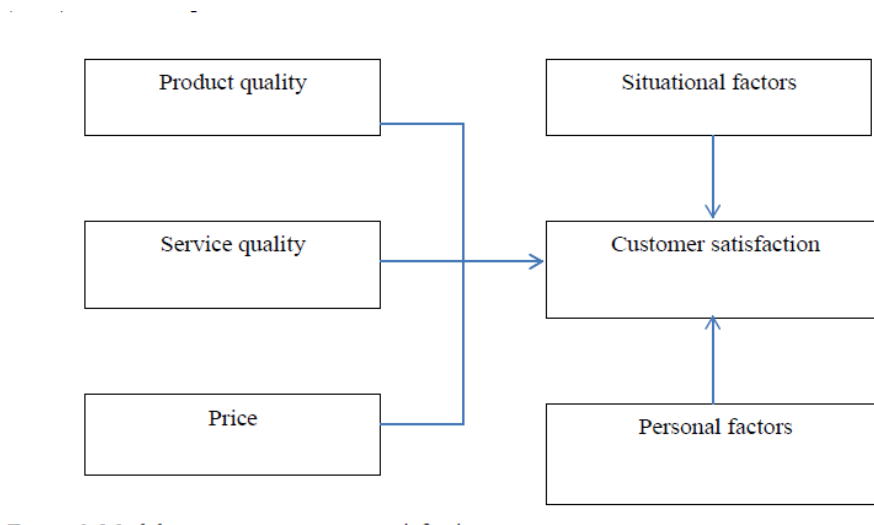


Figure (1): Zeithaml and Bitner Model to Measure Customer Satisfaction.

3.6 Value, Satisfaction, and Quality

According to Zeithaml and Bitner (2000), four main factors constitute customers' perceptions of service quality, satisfaction, and value, which are:

1. Service encounters: which refers to both verbal and non-verbal attitudes which form the basis for intangible service quality, such as the environment where the service is (equipment and layout of the place).
2. The evidence of service: as services are intangible and produced and consumed simultaneously; customers based their search of the level of service provided on specific proof like employees, process, and physical evidence. Zeithaml and Bitner (2000) have furnished three proofs; employees, process, and physical evidence.
3. Image: image has been described as subjective knowledge, as an attitude, and as a combination of product characteristics that are different from the physical product. MacInnis and Price (1987) described image formation as a procedure by which ideas, feelings, and previous experiences with an organization are stored in memory and transformed into meaning based on stored categories.
4. Price: Zeithaml and Bitner (2000) noted that a high service price is associated with an equal high-quality consumer expectation. Usually, a low price of things, in general, does not connote inferior or superior quality.

On the other hand, satisfaction is derived from the value proposition offered in specific products/markets. Cronin et al. (2000) claim that value precedes satisfaction. They further accentuated that quality affects value. Nguyen and LeBlanc (1998) also recommend in the results of their study that there is a correlation between service satisfaction, quality, and value. It is clear from the literature that value is the worth or importance of gains and losses derived from purchases or consumption of services. Also, satisfaction and quality are seen as the meeting of the requirements of customers. Therefore, it could be inferred that the requirements are the same as the importance

attached to the services. Therefore, the three concepts, quality, satisfaction, and value, could be used interchangeably (Mensah, 2010).

3.7 Disconfirmation Theory

Disconfirmation theory was developed by Oliver (1980), and it is one of the most popular schools that seek to explain the satisfaction process.

Theory proponents believe that satisfaction is formed due to the discrepancy between the perceived performance of a product/service and the customer's expectation.

Thus, customers come to the received service with some expectation. By comparing their expectations with the perceived performance of the product they purchase or consume, they either confirm or disconfirm their expectations, resulting in satisfaction or dissatisfaction, illustrated in the figure below. (Wandaogou and Jalulah, 2011)

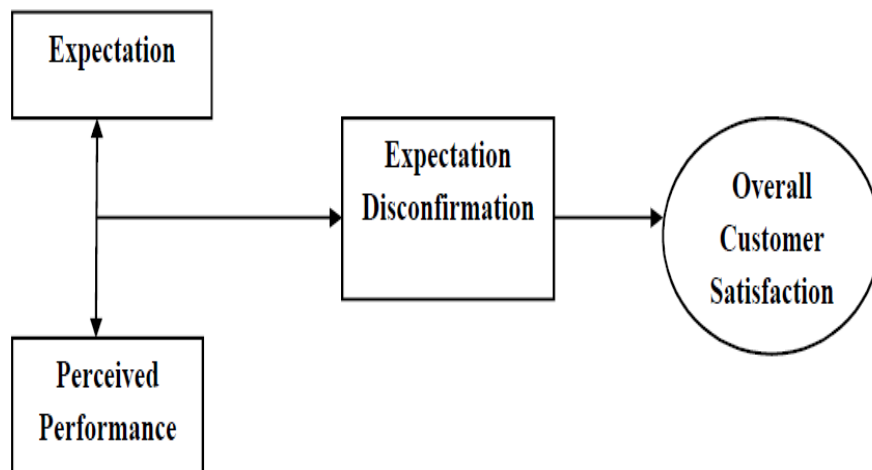


Figure (2): Disconfirmation Theory

Consequently, Liu et al. (2008) had listed four criteria for measuring the satisfaction level of customers regarding the purchase and subsequent consumption of goods or services, which are:

1. Content: The characteristics of products or services, as well as the underlying advantages, provide the client with a pleasurable consuming experience.
2. Relived: The alleviation of the negative state of customers' minds by the goods or services provided
3. Novelty: The level of freshness and excitement that a good or service may bring in to customers
4. Surprise: The level of amazement and unexpected pleasure brought to people buy goods or services consumed.

The study of the many stages of the customer relationship life-cycle reveals critical concerns and aids in depicting the level of customer satisfaction at each stage; thus, at each step of the relationship, it would be beneficial to emphasize unique consumer wants and expectations. Client satisfaction denotes the relationship that exists between the customer and the service provider. It fosters client loyalty and fosters a long-term relationship between both parties. (Munawar and Fasih, 2014).

3.8 Objectives of Customer Satisfaction Measurement Programs:

1. Measuring and tracking customer satisfaction.
2. Creating profiles of one's strengths and limitations.
3. Determining the importance of certain performance elements in terms of overall satisfaction.
4. Creating a list of measures to boost client loyalty (Ilieska, 2013).

3.9 Potential Uses of Collected Customer Satisfaction Information:

1. Assist in recognizing certain satisfaction dimensions' strengths and weaknesses.

2. Identifying important customer requirements. Thus focus efforts on those areas that are most important to the customer.
3. Monitoring customer satisfaction results at different points of time, This aids in recognizing trends and patterns that emerge as a company matures and changes, allowing the organization to adapt and adjust services and products to meet changing customer requirements.
4. Provide comparisons to other organizations or within the organization by department or sub-group, providing a wealth of information to determine strengths and weaknesses, the effectiveness of product/service components, and product/service delivery.
1. Analyze the effectiveness of company processes. Customer satisfaction survey data can give useful and reliable information to aid in the evaluation of product/service components and delivery. (Ilieska, 2013).

3.10 Customer Loyalty

Duffy (2003) proposed that customer loyalty is a feeling of association that a customer has towards a brand, which would motivate the customer to acquire a good or service repeatedly. Therefore, customer loyalty incites customers for repeat purchases and persuades them to refer those products or services to others. As a result, the firm benefits from significant and improved financial outcomes.

Customer loyalty is generated under the following six assumptions:

1. It is a function of psychological processes.
2. It involves bias (which is random).
3. It involves some decision-making unit.

4. It may relate to some alternative brands.
5. Behavioral response (the final purchase).
6. It is expressed over time (post-purchase behavior) (Munawar and Fasih, 2014).

3.11 Customer Satisfaction and Service Quality

Service quality and customer satisfaction are unquestionably the two core notions at the heart of marketing theory and practice. Many researchers have found empirical supports for the view of the point that service quality is a determinant of customer satisfaction, and customer satisfaction came as a result of service quality.

Satisfaction and service quality have certain characteristics, but satisfaction is a broader term, whereas service quality focuses particularly on service aspects.

Although it is stated, perceived service quality is a component of customer satisfaction (Agbor, 2011).

Cronin and Taylor (1992) found empirical support for the idea that perceived service quality led to satisfaction. They stated that customer satisfaction is seen as a multidimensional construct along the same dimensions that constitute service quality.

In the e-context, several researchers such as Lee and Lin (2005), Collier and Bienstock (2006), and Shamdasani (2008) have confirmed the impact of e-quality on both satisfaction and loyalty (Baykal, 2016).

Despite strong correlations between service quality and customer satisfaction, Baker (2013) had noted that the two constructs are, in fact, different from the customer's point of view. Thus, Brady and Cronin (2001) attempted to clarify the definition and nature of the service quality and satisfaction constructs, provided empirical evidence for the

concept that service quality was a precursor to the construct of superior satisfaction (Gambo, 2016).

Arguably, various studies had different views in terms of the relationship that links satisfaction and quality. McDougall and Levesque (1996, 2000) and Negi (2009) supported that satisfaction leads to quality. Others, like Parasurman et al. (1988), proposed that the same attributes determine quality and satisfaction.

3.12 Customer Satisfaction of Electronic Service

Customer satisfaction becomes more important in the case of electronic service. Hence, Al-Hawari and Toaher (2012) had defined electronic satisfaction as "the outcome of previous experience with the services provided by the website and allowed this experience to assess the effectiveness of the distribution channel of the Web and determine how he satisfied about the website".

So, customer satisfaction for e-service is a mission to achieve financial performance. It can be a possible customer loss if he could not access the website or if the website is unsatisfactory. Accordingly, organizations must obtain information on how to satisfy the e-service customers.

According to Parasuramn et al. (1985), receiving high-quality service will lead to a rise in customer satisfaction., so Su et al. (2002) emphasize the link between the quality of service and customer satisfaction, as customer satisfaction depends on the quality of service provided (Al -Hawary and Al Smeran, 2017).

Yang (2001) discovered a significant relationship between online quality service and consumer satisfaction based on five e-service quality dimensions: care/help, ease of use, reliability, and product portfolio. Likewise, Mobarek (2007) proved that customers are

generally satisfied with e-banking services as a whole. Too, Nupur (2010) stated that there is a link between customer satisfaction with e-banking and the five SERVQUAL scale dimensions: reliability, responsiveness, assurance, empathy, and tangibles (Khalil, 2011).

3.13 Customer Satisfaction and E-Banking

According to Grönroos (1998), E-service quality and customer satisfaction are positively and steadily related together. Indeed, it was also concluded by Parasuraman (1988) that the relationship between quality of service and customer satisfaction is very sturdy and durable. Also, Jain and Gupta (2004) concluded that great customer satisfaction immensely depends on receiving a better and higher quality service.

Furthermore, Asiyanbi and Ishola (2018) confirmed that the degree of customer satisfaction in the banking sector increases when using E-Banking services. Likewise, Bei and Chiao (2006) recognized a significant relationship between the quality of the service and customer satisfaction. Similarly, Ranaweera and Neely (2003) verified that the quality of E-service is the first step of customers' satisfaction. Finally, Zhou (2004) stated that the E-Banking service quality related to reliability has a significant effect on the degree of customer satisfaction (Hammoud et al., 2018).

3.14 Advantages of Electronic Banking Services:

1. Working to reduce costs and increase profitability, as e-services do not need to use paper for transactions and procedures and save time and effort. Thus, it means providing services with speed and accuracy

2. Allowing banks to expand their activities and reach more customers without opening new branches, and without regard to time or location, so customers may request help from anywhere and at any time, allowing the company to access a larger customer base keep pace with the progressive development of laws and rules
3. Improve information security and transaction secrecy for various parties.
4. Capability to provide innovative financial services that are better tailored to the needs of consumers.
5. Improving the efficiency of bank performance and the quality of service given
6. Increasing the ability of local banks to compete in foreign markets. (El Talla et al., 2019)

Chapter 4

Banking Sector

4.1 Introduction

In recent years, greater competition in the banking industry has been driven by globalization, and banking is seen as an information-intensive service field. It is considered an ideal center for the successful development of e-commerce because it highly depends on using the internet to provide quick services that result in customer satisfaction.

Thus, technology has emerged as a strategic resource for banks in order to attain efficiency, control operations, productivity, and profitability.(Wandaogou and Jalulah, 2011). Additionally, the findings of Chai et al. (2016) had supported that banks are highly affected by technology and innovation, and it contributes to sustaining their competitive advantage and improve business performance.

According to Singh and Malhotra (2004), E-banking can be defined as the deployment of banking services and products over electronic and communication networks directly to customers (Wandaogou and Jalulah, 2011).

So, the emergence of technology in the banking sector had led to

1. Increase customer base.
 2. Reduce transaction costs.
 3. Improve the quality and timeliness of response.
 4. Enhance opportunities for advertising and branding.
 5. Facilitate self-service and service customization.
 6. Improve customer communication and customer relationship management
- (Wandaogou and Jalulah, 2011).

4.2 Palestinian Banking Sector

The Palestinian banking industry was established within the last decade of the last century. There were solely two banks in Gaza Strip and West Bank at the end of the era of direct Israeli military occupation, which is the period that preceded the national authority directly (Sisalem, 2018).

Before that period, at the year 1967, Israeli banks monopolized the banking sector in both Gaza Strip and West Bank by issuing the Israeli military decision No.7 for the year 1967 on 07/06/1967 to close all Arab banks in Gaza Strip and West Bank. Then, Israeli banks like (Bank Hapoalim and Bank Leumi, and Bank Mizrahi) and others started to open branches in the West Bank and Gaza Strip.

Those banks were operating to achieve an occupational role; by withdrawing depositors' money to be invested in Israel. It did not grant Palestinian citizens any facilitations; therefore, it lost citizens' trust because they felt that its goal was to enforce the existence of Israeli occupation.

After that, the Palestinian bank restated its activities in 1981 after the Israeli occupation allowed it to re-operate in Gaza Strip, and the Israeli Central Bank supervised it. Then, Cairo Amman Bank -which is a Jordanian bank- had launched its first branch in 1986 in the West Bank in Nablus, and the Jordanian and Israeli central banks have supervised it. The Palestinian banking sector is regulated by The Palestinian Monetary Authority (PMA), which was established as a result of the signing of the Paris Protocol on Economic Relations between the PNA and Israel in 1994; in order to implement and regulate monetary policies in Palestine.

Consequently, The Palestinian Monetary Authority started to build the money and banking system and ensure stability and promote economic growth in the Palestinian

territories until the Palestinian banking system became one of the best systems in the region (Shamallakh, 2014).

From another perspective, customers of Palestinian banks are divided into several categories, which are: employees who are the most numerous, businessmen and traders who are the most in touch, as well as customers with saving accounts, depositors, and those with limited dealings such as recipients of aids (El-Hinnawi, 2011). Recently, banks in Palestine have faced huge challenges and difficulties due to the Israeli occupation and Siege.

4.3 Services Provided by Palestinian Banks

Palestinian operating banks provide all banking services acknowledged within the world, offering; current and future accounts in several currencies, giving loans and remittances, documentary credits and bank guarantees, Islamic banking services, online banking services, and different services (Sisalem, 2018).

More specifically, provided services are:

1. Opening of current accounts of different types (debtor, creditor) using the three monetary forms traded (Dinar, Dollar, the shekel, the euro).
2. Issuing checks using the traded currencies.
3. Acknowledgments of a wide range of deposits.
4. Allowing credit facilities for traders and others.
5. Executing Issued transfers and receiving incoming remittances.
6. Managing and organizing subscriptions to new local joint-stock companies.
7. Safes rental to clients.

8. Issuance and offer of traveler's checks. Issuance of letters of assurance and the issuance of guarantees and open letters of credit.
9. Installment of checks drawn on the bank or gathering checks drawn on other banks for bank clients.
10. Purchasing and selling currencies.
11. Financing the acquisition of vehicles, furniture, and premiums (Murabaha and loan) (Shamallakh, 2014).

Since provided services by Palestinian banks are virtually the same, the level of competition between banks is continuously increasing, but what distinguishes a bank from another is the quality of service provided to customers and not the service itself. (Sisalem, 2018).

4.4 Recent Statistic of the Palestinian Banking Sector

According to the annual report of the Palestinian Monetary Authority (PMA) for the year 2018, the analysis of the financial statements of the banking sector (as at the end of 2018) showed an increase in the total assets of the banking sector by 1.7% to reach 16,124.9 million dollars.

Also, the direct credit portfolio increased by 5.1%, by about \$ 8,432.3 million, with a percent of 52.3% of the total banking assets.

Consequently, customer's deposits reached \$ 12,227.3 million, up 2.0% from 2017. As well, Banking sector equity increased by 1.1% to reach \$ 1,912.0 million (PNA, 2018).

As well, the following tables illustrate the recent statistics related to the Palestinian banking sector:

4.5 Number of Working Banks in Palestine and Their Branches

Table (4): Working Banks in Palestine

Item	2016	2017	2018	2019
Number of banks				
Local banks	7	7	7	7
Expatriate Banks, including:	8	8	7	7
Jordanian banks	7	7	6	6
Egyptian banks	1	1	1	1
Foreign banks	0	0	0	0
Total	16	15	14	14
Number of branches and offices				
Local banks	187	209	227	239
Expatriate Banks, including:	122	128	124	131
Jordanian banks	116	121	117	124
Egyptian banks	6	7	7	7
Foreign banks	0	0	0	0
Total	309	337	351	370

4.6 Operating Banks in Palestine

Table (5): Operating Banks in Palestine.

#	bank	Establishment year	No. of branches and offices
Local banks			
1	Bank of Palestine	1960	73
2	Palestinian investment bank	1995	20
3	Islamic Arab Bank	1996	25
4	Palestinian Islamic Bank	1997	45
5	Al-Quds Bank	1995	39
6	National bank	2006	28
7	Al Safa bank	2016	9

Expatriate Banks			
1	Cairo-Amman Bank	1986	22
2	Arabic bank	1994	32
3	Jordan bank	1994	38
4	Egyptian Arab Land Bank	1994	7
5	Jordan Commercial Bank	1994	7
6	Jordan Ahli Bank	1995	10
7	Housing bank	1995	15

4.7 Palestinian Banks Financial Indicators

Table (6): Financial Indicators for Palestinian Banks

Item	2016	2017	2018	2019
Number of depositors' accounts	3,072,923	3,208,783	3,471,849	3,686,875
Total Deposits (Million USD)	10,604.7	11,982.5	12,227.3	13,384.7
Total facilities (Million USD)	6,871.9	8,026.0	8,432.3	9,036.6
Number of ATM's	622	644	690	715
Number of Credit Cards	118,076	98,041	103,057	105,216
Number of Debit Cards	547,019	695,120	816,329	866,812
Number of ATM's cards	165,763	132,772	114,966	128,095

4.8 E-services Provided by Palestinian Banks

There is a wide range of electronic services provided by Palestinian banks to its customers, and they are relatively the same. The provided E-services can be divided into four categories as follows:

1. E-service Related to Cards, Including:

- ATM's cards (withdraw and deposit both cash and cheques).
- Credit cards.
- Master cards.
- Easy life.

2. Internet Banking Services

They provide a wide range of services by signing up an account for each client (user) on the bank's website, where the client can perform many transactions, such as transferring money, requesting checkbook, currency exchange, requesting bank statements, etc.

3. Mobile Banking Services

Providing internet banking services through a specific mobile application, which is available for both Android and IOS.

4. SMS Services

By which customer is kept informed about all transactions performed on his banking account

5. Auto-Islami

A new type of interactive service is provided by a Palestinian Islamic bank, which depends on using social media to interact with customers and immediately answer their queries.

Table (7): Shows The E-Services Provided By Each Bank.

#	Bank	E-services
1	Bank of Palestine	<ul style="list-style-type: none"> • Mobile Banking • Online Banking Services • USSD Service • SMS Services • Interactive Voice Response (IVR) Services • Automated Payment Services
2	TNB	<ul style="list-style-type: none"> • TNB Online Banking • Mobile Banking • The Digital Service Center • Cardless Service
3	SAFA Bank	<ul style="list-style-type: none"> • Internet Banking Service • SMS Service • ATM Service • Cash deposit • Mobile bank
4	Quds Bank	<ul style="list-style-type: none"> • ATM Cards • SMS Service • SMS Services upon Request (SMS Pull) • Online Banking
5	Palestinian Islamic Bank:	<ul style="list-style-type: none"> • Digital Contact Center • Electronic Payment Service • Currency Exchange • ISLAMI ONLINE • ISLAMI MOBILE • ISLAMI AUTO • SMS Service • ATM Service • Cash Deposits
6	Arab Islamic Bank	<ul style="list-style-type: none"> • Internet Bank • SMS Service • Call Center • Mobile Bank • Advance Reservation • ATM Service • Immediate Bill Payment
7	Palestine Investment Bank	<ul style="list-style-type: none"> • Cash cab • ATM Service
8	Arab Bank:	<ul style="list-style-type: none"> • ATM • ARABI Mobile • ITM • SMS Express • ARABI Online • Direct Sales

		<ul style="list-style-type: none"> • Customer Care Center • ARABICONNECT • Branches & ATMs Network • Corporate Business Center • Customer Biometric Recognition
9	Cairo Amman Bank	<ul style="list-style-type: none"> • ATM Service • Internet Banking • Mobile Application • SMS Banking
10	Housing Bank	<ul style="list-style-type: none"> • ATM Machines in Palestine. • ISKAN Online – Palestine.
11	Bank of Jordan	<ul style="list-style-type: none"> • SMS Services • ATM Service • BOJ online
12	Al-Ahli Bank:	<ul style="list-style-type: none"> • AL AHLI Online • AL AHLI Mobile • Self Service • Push Notification • Apple Pay • AL AHLI Phone Banking • ALAHLI ATM
13	Egyptian Arab Land Bank:	<ul style="list-style-type: none"> • Online banking • AL-AQARI Mobile • SMS Services • Information Security

4.9 Main E-services Provided by Palestinian Banks:

1. **Automated Teller Machine:** These are devices that are placed in various locations, either by the wall or separately, and are linked to the bank's network, through plastic cards or smart cards which access to various services including cash withdrawals, deposits, purchases, inquiries, bill payments, and other transactions; without the need for the bank's employees.

Through ATM's the office burdens of the bank's employees can be reduced, as well as reduce the time, effort, and costs of customers.

2. **Mobile banking:** Applications and software developed by banks on mobile devices that enable the implementation of banking operations via electronic procedures via the internet and mobile phones.

The concept of providing these services is based on a prior agreement between the bank that provides this service and the mobile service providers, where they collaborate to put the customer data on the chip on which his mobile phone operates, so the customer can pay for the prices of the goods and services he receives by using his mobile phone, as well as to make electronic money transfers via SMS. **The services offered by Mobile Banking are**

- Inquiry about the account balance.
- Inquire about the latest ten (10) transactions on the account.
- Transfer from one account to another.
- Request for account statement
- Make a request for a checkbook.
- Summarising account balances.
- Change the PIN.
- Stop your Visa Electron card.
- Paying the bills.
- Exchange Rates.
- Interest rates.

3. **Internet Banking Services:** this means using the Internet and telecommunications networks to provide a wide range of products and services to customers. Thus, through banks' websites, beneficiaries are allowed to transfer, query, pay bills, and do other operations without limiting the time and place (El Talla et al., 2019).

4.10E-banking During the Spread of Covid-19

COVID-19 has altered the way people live, interact, and make a purchase. It has become a global challenge with a significant prevalence rate, and as it exerted devastating consequences in epidemic, economic and social terms. The fear of COVID-19 is life-threatening for people around the world. Students are mainly restricted to online classes, employees are forced to online meetings, and buyers and sellers are using electronic means. Similarly, banks in affected countries have reduced the branches working hours, and they recommend their customers use digital banking services. Thus, the banking sector is getting popular with digital means, as account holders are already much leaned toward online banking.

Unpredictably, where COVID-19 has shut down businesses around the world and put a large number of people below the poverty line, there are huge opportunities which were in specific industries, such as creating information technology businesses, telehealthcare, and security firms (Haq and Awan, 2020).

The Covid-19 outbreak with its economic effects comes at the end of a decade that had much significant transformation for the banking industry around the world due to three main factors, which are:

1. The persistently low level of interest rates, with negative nominal rates in some jurisdictions in the recent years (which negatively reduce net interest margins as well as weaker monitoring incentives and laxer lending standards).
2. Increased financial regulation and supervision, including stricter capital and liquidity requirements, macroprudential instruments, and resolution regimes.

3. With the massive advent of digitalization and the emergence of FinTech as well as BigTech companies, these developments have also favoured the entry of new competitors in banking-related activities.

Hence, The Covid-19 brings new challenges and opportunities for the banking industry. It is most likely means that interest rates will remain low for a longer time. In the short run, banks are bound to benefit from being the channel of liquidity support in the crisis, and it has access to central bank reserves; the profound crisis afflicting the real economy is expected to result in a new increase in non-performing loans, threatening banks' stability. While providing at least temporary regulatory and supervisory relief for banks, the crisis may accentuate the digitalization tendency, leading to substantial changes in the banking sector.

The banking sector will face deep restructuring, accelerating the pre-Covid-19 trend, with medium-sized banks suffering since cost efficiencies and IT investment will be crucial in a persistently low-interest environment. This raises questions over the ability of some banks to survive the crisis and to generate and attract capital and over the future structure of the banking sector. Consolidation will be an escape route, but in the post-Covid-19 world, political obstacles to cross border mergers will resurface as states become more protective of their national banking champions since banks are considered strategic (Carletti et al., 2020).

In the Palestinian Context, the Palestinian Bureau of Statistics stated that the closure procedure, which was imposed by governmental authorities during the spread of Covid-19, had affected all economic sectors, including insurance and financial institutions. Published statistics had shown that insurance and financial institutions were affected by closure instructions during (03/05/2020) to (31/05/2020) as follows:

1. 99% of insurance and financial institutions were closed during the closure period at West bank, while 22% were closed at Gaza Strip.
2. The percentage of closure days were 52% at West Bank and 6% at Gaza Strip.
3. The decrease in sales and production during the closure period was 97% at West Bank and 97% at Gaza Strip.
4. 21% of Insurance and financial institutions had faced difficulties in reaching employees to their work locations.
5. The percentage of Insurance and financial institutions having a decrease in cash flow availability were 82.3%.
6. The Percentage of Insurance and financial institutions having an increase in returned checks were 8%.
7. Percentages of institutions having a decrease in the supply of financial services that are normally available were 64%.
8. 10% of institutions had delayed payments to suppliers or employees in order to face a shortage in cash flows during closure time.
9. Regarding employees, 12% of institutions had fired their employees, 10% had reduced salaries and wages, 14% had reduced working hours, 14% had given their employees leave with salary, and 11% had given their employees leave without salary.
10. The percentage of increasing use of the internet, social media networks, specialized apps or digital platforms in response to the COVID-19 outbreak was 22%.
11. Insurance and Financial institutions had noted the needed policies to Support their Sector Over the COVID-19 Crisis through Exemptions or tax deductions,

Government purchase of goods and services, Postponing credit payments, suspending interest payments or renewing debt, and Salary subsidies (PCBS, 2021).

4.11 Previous Studies

The researcher had reviewed many previous studies, which are related to the field of this study. A number of those studies are listed below, which were used to build the research literature, and interpret its results.

4.11.1 International and Regional Studies

1. (Ali et al., 2017)

"Evaluation of E-Service Quality through Customer Satisfaction (a Case Study of FBR E-Taxation in Pakistan)"

The purpose of this study was to investigate the relationship between suggested service quality dimensions (Responsiveness, Reliability, trust, and empathy) with customer satisfaction and customer reuse intention in the e-taxation of FBR in Pakistan. Thus, a sample count of 188 from FBR's e-taxation/e-filing users was used to examine the study through a detailed semi-structured questionnaire.

The statistical method has been used to check the research model significance relationship among various variables.

Hence, the result shows that the service quality dimensions, namely responsiveness, reliability, and trust, have significantly related to customer satisfaction, whereas empathy was insignificant.

Researchers had suggested improving the service quality through keeping on conducting a regular and continuous assessment of e-government services with a specific end goal to meet the suitable changes in the service quality, which can develop taxpayer's

satisfaction and prompt e-user's reuse intentions. Additionally, new technologies must be integrated as a factor to assess service quality.

2. (Seyoum, 2017)

"The impact of service quality on customer satisfaction: the case of Ethio telecom call center"

This study aimed to assess the overall level of service quality and customer satisfaction in the Ethio telecom call center and investigate the impact of service quality dimensions on customer satisfaction.

To do so, the researcher had developed and hypothesized a conceptual model of service quality dimensions and had used a structured questionnaire as a tool for data collection among Ethio telecom major customers in Addis Ababa. They have access to use both 980 and 994 access numbers. So that 400 respondents were taken as a sample from 3,157 major customers.

The acquired data were examined statistically using both descriptive and inferential approaches. The study's findings show that the service quality of Ethio telecom call center is subpar, and customers are dissatisfied with the service.

Thus, based on the finding, all service quality dimensions significantly impact service quality and customer satisfaction.

The researcher recommended that Ethio Telecom should work diligently in all dimensions of service quality to increase the service quality and customer satisfaction of its call centers.

3. (Daniel, 2016)

"Effects of service quality on customer retention among commercial banks in Kenya"

This study aimed to examine the relationship and effect of service quality on customer satisfaction and retention among commercial banks in Kenya.

The research depended on a descriptive cross-sectional research design, and primary data was collected from bank customers using a Likert-type scale questionnaire.

Research results indicate that most of the commercial banks in Kenya use the ServQual dimensions to some extent. Additionally, results indicate a significant relationship between ServQual dimensions (reliability, assurance, tangibility, empathy, and responsiveness) and indicators of customer retention (customer trust, customer satisfaction, level of involvement, communication effectiveness, switching barriers, etc. and price).

Consequently, the researcher recommended that managers at commercial banks pay attention to service quality and other factors which may lead to customer retention.

4. (Amin, 2016)

"Internet banking service quality and its implication on e-customer satisfaction and e-customer loyalty- Malaysia internet banking."

The study aims to examine the internet banking service quality and its implication on e-customer satisfaction and e-customer loyalty in the context of Malaysian internet banking.

In order to achieve the study objective, the researcher had developed a structured questionnaire as a measurement tool, where 1000 questionnaires were distributed among customers visiting the counters of banks and had experience with internet

banking services prior to completing the survey. The study population was ten commercial banks and forty branches in four different cities in Peninsula Malaysia.

Hence, the results found that the relationship between internet banking service quality, e-customer satisfaction, and e-customer loyalty is significant. Additionally, results indicated that the efficiency of the website is found to be the key driver of internet banking service quality, followed by site organization, user-friendliness, and personal need, respectively.

Furthermore, the researcher had recommended banks to focus on strategic choice in increasing consumer awareness and acceptance of new technology (banking system) in order to gain competitive advantage; they are also recommended to provide online transaction procedures, information on how to deal with security problems, and instructions on how to use internet banking services securely.

5. (Rostami et al., 2016)

"The Impact of E-service Quality on the Improvement of the Level of Communication with Customers of Bank Melli Branches in South Tehran Affairs Office"

This research aims to investigate the influence of electronic service quality on the enhancement of customer communication in Bank Melli branches in the South Tehran affairs office.

Researchers had used a descriptive cross-sectional study and library and field methods to collect data, where the study population includes all the customers of Bank Melli branches in South Tehran, and their number is unlimited.

Researches had distributed a questionnaire among 384 individuals, who were randomly selected according to Cochran's theorem.

Hence, the study had concluded that there is a strong and positive relationship between the quality aspects of e-services quality (efficiency, system availability, commitment to system implementation, privacy policy, response, and contact) and the level of communication with customers of Bank Melli's branch in southern Tehran.

In the light of study findings, researchers had recommended expanding the e-service system, installing more ATMs machines, speeding up the provision of services, and responding on time.

6. (Apondi, 2016)

"Service quality, customer satisfaction and loyalty in commercial banks in Kenya"

This study was conducted to measure the extent to which service quality and customer satisfaction influence customer loyalty in Commercial Banks.

To achieve the study objective, the researcher had used a questionnaire to collect data from a pool of 300 respondents chosen using stratified random and systematic sampling processes; then, Data analysis was done through Pearson correlation and regression analysis.

Therefore, findings revealed that there was a positive and significant relationship between service quality, customer satisfaction, and customer loyalty. Additionally, results indicate that service quality and customer satisfaction are critical success factors that influence an organization's competitiveness.

So, the study had recommended banks adopt the model, which consists of three constructs, in order to create and maintain customer loyalty, improve performance, and gain a competitive advantage.

7. (BaykaL 2016)

"The effect of e-service quality on customer perception"

The purpose of this study is to explore the roles of e-service quality dimensions on attitudes and feelings of customers and to develop a conceptual framework to identify the antecedents and consequences of E-SQ based on grounded theory analysis of literature.

Based on inductive research, the researcher developed a conceptual model primarily based on Parasuraman's E-SQ model (2005), which is being most extensively and successfully used model in service quality measurement in the twenty-first century and has a wide coverage of factors included in other models. Thus, Parasuraman's dimensions are grouped into factors as Technology Factors, Shopping Factors, and Product Factors.

The main result of the study was constructing a conceptual model that has a broad coverage of critical dimensions of e-service quality according to their effect on consumer satisfaction and loyalty by presenting some extra dimensions like product quality, product assortment, and product customization to perceived e-service quality build likewise to Parasuraman's E-SQ.

The study had recommended important implications for web merchants by indicating the need to develop online systems, which are trustworthy, user-friendly, secured, responsive, personalized, and product rich to encourage repeating visits and repurchase intentions of their customers.

8. (Blut et al., 2015)

"E-Service Quality: A Meta-Analytic Review"

The study aims to develop a conceptual framework relating different components of e-service quality to its outcomes. The framework is tested empirically using a meta-analysis of 89 independent samples representing 31,264 individual observations.

Researchers had summarized the impact of e-service quality on key outcomes (customer satisfaction, repurchase intentions, and word-of-mouth), just as the moderating impact of three contextual factors (country culture, regulatory environment, and industry context). Results demonstrate that e-service quality has four underlying dimensions (website design, fulfillment, customer service, and security/privacy). However, their relevance for overall e-service quality is moderated by country-specific (uncertainty avoidance, masculinity, power distance, individualism), regulatory environment-specific (financial secrecy, the rule of law), and industry-specific (services/goods, retailing/banking) factors as well as research-design factors.

The researcher recommended that firms use their study findings to refine their strategy by focusing on specific components of e-service quality to improve results such as customer satisfaction, repurchase intentions, and word-of-mouth, and to implement specific strategies in countries with different cultures regulatory regimes.

9. (Al-Smeran, 2017)

"Impact of Electronic Service Quality on Customers Satisfaction of Islamic Banks in Jordan"

This study aimed to investigate the impact of electronic service quality on customer satisfaction of Islamic Bank in Jordan. The Electronic Service Quality represented by (Reliability, Ease of use, Effectiveness, Web Site Design, privacy, and Responsiveness)

The researcher had used a questionnaire as a data collection tool. A sample of 300 participants was selected from the study population, which was customers of Islamic Banks in the northern territory of Jordan (Jordanian Islamic Bank, International Arab Islamic Bank). Then SPSS had been used to examine the study hypothesis and analyze results.

The researcher found that there is a statistically significant impact of the Electronic Service Quality (Ease of use, Web Site Design, privacy, and Responsiveness) on Customers Satisfaction of Islamic Banks in Jordan. The study indicates that they had an insignificant impact on customer satisfaction regarding the dimensions of reliability and effectiveness.

Thus, the study had recommended the use of specialists in the field of electronic sites design in particular, because the site attractiveness needs sufficient experience in this area to support its attractiveness for customers, in addition, to benefit from the experiences of the developed countries in the field of software technology control and protection of client information.

10. (Abdulfattah, 2012)

"The effect of electronic customer relationship on customer satisfaction a study on web banking in Saudi Arabia."

This study aimed to examine the effect of various electronic customer relationship management (E-CRM) features at the different stages of the transaction cycle (pre-transaction, during-transaction, and post-transaction) on customer satisfaction on bank's websites in Saudi Arabia.

The researcher had used a questionnaire as a data collection tool, where six basic hypotheses were tested (E-CRM features) against seven service quality dimensions selected from the SERVQUAL instrument.

Hence, the empirical analysis was carried out using a structural equation model. Research had concluded that the use of E-CRM in building customer relationships affected online customer satisfaction and service quality.

Therefore, the researcher highlighted the critical dimensions of service quality, which managers in the banking sector are recommended to invest in when drawing their customer satisfaction strategies.

4.11.2 Local Studies

1. (Abu Awad, 2020)

"Customers' Acceptance of E-Banking Services in Hebron City"

The study aimed at identifying the extent of customers' acceptance of the use of Palestinian banks' online banking services. The descriptive-analytical approach was used, in which investigates the phenomena as it exists in the reality and expresses it both quantitatively and qualitatively.

A questionnaire was prepared to meet the study's objectives, and the study population comprises of all clients of Hebron City banks, which are 12 banks dispersed over 24 branches, throughout the academic year 2019-2020. The study sample consisted of 226 Hebron city bank clients.

Data collected through surveys, and were evaluated using a variety of statistical techniques including correlation measures (T) test, monovariance analysis, test Anova (One Way), the Schiffe test, and the multiple linear regression analysis.

The study concluded that there is a high degree of customer's acceptance of the use of Palestinian banks' online banking services, and the cash deposit service using the ATM is the most often accepted by clients, followed by a medium level of usage of services and queries available through the Internet banking., While services and queries through ATMs are the least accepted by clients with a minor difference. Also, There is a statistically significant positive correlation between the use of the online banking service provided by the bank and the ease of use of the online banking service and the regularity of the online banking service provided by the bank. This shows that the easier to use regularity online banking services, the more widely used online banking services. Based on the findings, the study recommended ensuring the continuous availability of ATM services and attempting to find a mechanism to feed it without interfering with its operation, issuing ATM cards to businesses, providing a private ATM for businesses with large amounts of money in terms of withdrawals and deposits, and providing a private ATM for businesses with large amounts of money in terms of withdrawals and deposits., and encourage customers over the age of (60) years to use online banking services.

2. (Abu Mezar, 2019).

"The Quality of Banking Services of The Palestinian Banks Operating in the City of Hebron: A comparative Study between Islamic Banks and Commercial Banks."

The study pointed to recognize the quality of banking services within the Palestinian banks working within the city of Hebron through a comparison between Islamic banks and commercial banks from the point of view of clients. To realize the objective of the study 'the quantitative approach was utilized through the "comparative study" strategy. The study was conducted on a sample of 390 people from the clients of the seven banks

working within the city of Hebron ‘recovering 371 questionnaires with a 95% recovery rate. The study concluded that there are no statistically critical differences within the level of significance between commercial and Islamic banks within the quality of banking services offered. The study displayed a number of recommendations ‘the most vital of which are the recognizable proof of the Islamic and commercial banks working within the city of Hebron at the time of completion of managing an account benefit to clients more precisely.

The Palestinian Monetary Authority is recommended to oblige banks to review the quality of banking services permanently. Conduct comparative studies on the quality of banking services between banks operating in Palestine and regional banks.

3. (Lahlouh and Zain Al-Deen, 2016)

“The impact of the quality of banking services on customer satisfaction in commercial banks in Nabuls”

This study aims to identify the level of quality of banking services at Nablus and examine the relative importance of the different dimensions representing the quality of banking service. The study included an intended sample of clients from 11 commercial banks.

The study revealed the overall quality of banking services in the dimensions of safety, trust, and tangible material aspects. However, in return, it did not give the same attention to the practical aspects such as responding to customers' desires, helping them, developing the service provided to them, and personal attention to the customer.

Hence, the study recommended that commercial banks adopt service quality as a strategy for development and competition, continuously enhance their use of technology in providing services, and regularly measure the level of service quality.

4. (Khrewesh, 2011)

“E-banking Adoption Model in Palestine”

This research aims at investigating Factors affecting Customers' Reception of E-banking Technology in Palestine. Additionally, the research plans to present the E-banking adoption model, which can help the banking sector in Palestine. This model could help in spreading E-banking innovation among Palestinian society. Literature was reviewed to define a research framework that is based on the extension of the Technology Acceptance Model (TAM) with Theory of Planned Behavior (TPB), Perceived Risk, Technology Usage, and Bank's Role.

The research used both qualitative and quantitative research methodology. Qualitative data were gathered by interviews with IT bankers and specific banks' clients Likewise, A survey designed for this aim was used to collect quantitative data from a random sample of one thousand and ten (n=1010) Palestinian bank clients. We were able to retrieve 739 items (n=739) questionnaires with a response rate of seventy-three percent (73%).

The research questionnaire was gathered, coded, and entered into SPSS v 17 to analyze factors affecting customers' reception of E-banking Technology in Palestine. Different statistical processes were utilized, such as frequency, means, percentages, in order to answer and test the research questions and hypotheses.

5. (Al Foqahaa, 2012)

“Factors Affecting Customers Satisfaction with Islamic Banking Services in Palestine”

The study aims to explain the perceived impact of the dimensions of service quality of Islamic banking, the role of the image of Islamic banks perceived by customers, and customers' trust in the level of customer satisfaction.

The study was based on three assumptions, and its population consisted of the clients of Islamic banks in three cities of West Bank. The study sample was (376) clients.

The study results showed that there is a statistically significant effect on reliability and collateral on customer satisfaction with the services of Islamic banks. In addition to the existence of a moral influence on the independent study variables (Islamic, quality of banking services, trust, and institutional image) on customer satisfaction.

Hence, the researcher had recommended Islamic banks enhance their tangible environment, focus more on marketing their banking operations, and work continuously to enhance their customer satisfaction level.

Chapter 5

Research Design and Methodology

5.1 Overview:

This chapter aims to define and clarify the implemented methodology in this research, which measures the impact of e-service quality on customer satisfaction "an empirical study on banking services in Ramallah". The researcher relies upon a few strategies to achieve this review and accomplish the expressed objectives, which are the data about the research methodology, research design, research population, survey design and procedures, data measurement, testing survey validity and reliability, test normality, and statistical data analysis tools.

5.2 Research Approach

This research tries to figure out the impact of e-service quality on customer satisfaction at Palestinian banks in Ramallah. In this research, the deductive method a quantitative approach was used.

Creswell (1994) stated that quantitative research described a phenomenon by gathering numerical data and analyzing it mathematically. Quantitative research reaches a broader part of the problem using the deductive approach; the researcher used questionnaires as a tool for this approach.

5.3 Population and sample size:

The research population represents the cases or group of members that the researcher was studying (Saunders et al., 2009).

In the current study, the researcher focuses on Palestinian banks customers who use e-banking services in the city of Ramallah for easy access to the researcher to be the study population. And since it will be impossible to cover all people who utilize online banking services, as a result, the study will include 500 people and will look at how they utilize the internet banking services.

For sampling, a random sample of 500 respondents was chosen to be the study sample, and the samples were distributed using Google forms in a convenience sampling method. The total number of questionnaires retrieved was 455, whereas the total number of valid questionnaires for analysis was 411, with a recovery rate of approximately 82%.

5.4 Conceptual model of this study

This study had used a theoretical model that describes the relationship between E-service quality dimensions (independent variables) and customer satisfaction (dependent variables). The model was built in the light of several previous models and studies see table (5.1). The researcher had utilized the most common shared service quality dimensions in Internet banking, which are:

1. Efficiency
2. Reliability
3. Responsiveness
4. Fulfillment
5. Privacy

The model includes dimensions that are widely shared with most of the models, and it is applied to the banking sector, which is the field of our study. Thus, this model was highly recommended to be used for this study.

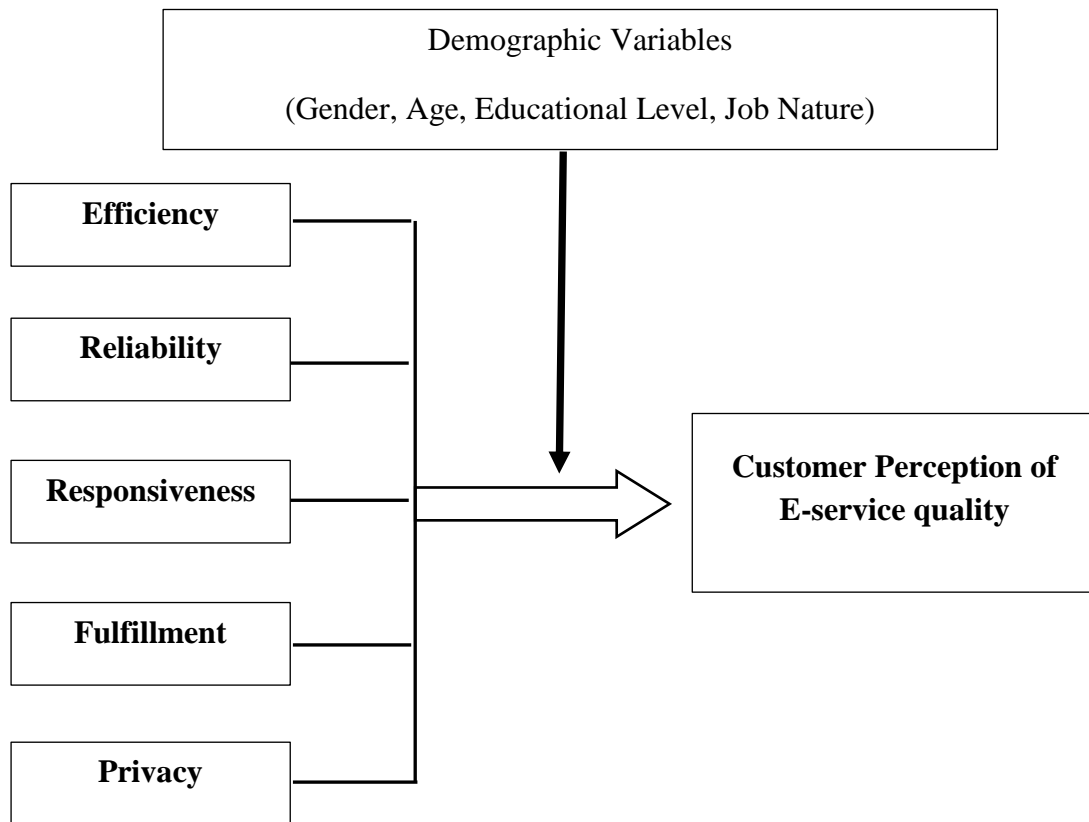


Figure (3) Proposed Framework for E-service Quality

Efficiency

Zeithaml et al. (2002) had defined efficiency as "The ability of the customers to get to a website, find their desired product and information associated with it."

Issues that related to efficiency would include the speed of login and logout time, easiness to find all the information from the bank's site, simplicity of use, and easiness to find the policy and notice statement on the bank site.

Reliability

According to the SERVQUAL model, reliability was defined as the "ability to perform the promised service dependably and accurately" (Parasuraman et al., 1988). It occurs when the customer views the services provided as reliable or perfect.

Reliability is also viewed as providing service through 'time conscious staff' with 'less queue.'

Hence, achieving the required level of reliability requires sufficient attention toward Materials (good library and Computer facilities), service time, availability of Shop assistance (Agbor, 2011).

Additionally, reliability includes uniformity of the bank performance, dependability of the customers on the bank, providing accurate bills to the customers, proper record-keeping by the banks, and providing the required service at the right time (Kumar et al., Shyam, 2020).

- **Responsiveness**

Based on the SERVQUAL model, responsiveness refers to "willingness to help customers pleasantly and effectively and provide prompt service" (Parasuraman et al., 1988). Therefore, it was viewed in terms of "service time" and "shop assistance" (Agbor, 2011).

In other words, responsiveness includes motivation or inclination of bank employees to provide the service to the customers, service suitability like providing transaction slip right away, call back facility to the customers, providing instant service (Kumar et al., 2020).

- **Fulfillment**

Zeithaml et al. (2002) had to define both accuracies of service promises and deliver the product in the promised time as measuring criteria for fulfillment.

Hence, fulfillment is related to confirming services, the bank's site provides a confirmation of the service ordered, and the bank's site performs the service right the first time.

- **Privacy**

It refers to the level by which credit card information is secure and information is not shared.

Related issues would be showing care about collecting personal information. The bank's site does not use cookies to collect personal information. The bank site is secure for credit card information, and the customer can rely on that the information he gives would not be misused.

5.5 Quantitative Method – Questionnaire

A massive volume of numbers is generated in the quantitative approach and needs to be summarized, described, and analyzed. Numerical data and statistics are used in the quantitative approach to characterize a phenomenon and discover the relationships between its variables. However, to simplify the data characteristics, it could be presented on graphs and charts, in addition to cross-tabulation and calculating means and standard deviations (Lacey and Luff, 2007). Regarding this research and its questions and after a comprehensive literature review, a primary questionnaire was established, consisting of 7 questions, and aimed to discover the three most used e-services. It had been distributed among 13 banks operating in Ramallah (appendix C).

The results of this questionnaire were a predictor for the main used e-services, showing that the most used e-services at Palestinian banks are ATM, mobile banking, and online banking, respectively (appendix D).

Then, research questionnaire was designed depending on the following questionnaire procedures:

1. The questionnaire is designed by the researcher based on reviewing literature and e-service models.
2. The questionnaire is reviewed and modified by the research's supervisor.
3. The modified copy is given to several academic referees. The referee's list is attached in (appendix E).
4. The questionnaire is then modified based on the referee's comments.
5. Based on these modifications, it is concluded that the questionnaire is ready to be distributed as a final copy.

The researcher first designs the Arabic language questionnaire (Appendix B) to make it easier for understanding. After the distribution and collection of the questionnaire, it was translated into English (appendix A). The researcher in both copies depends on the clear and straightforward language. The questionnaires were distributed with a covering letter; this letter clarifies the research purpose, the responding way, the research aim, and the information security in order to have a high response rate.

The Research Questionnaire Involves the Following:

1. Section one includes demographic data.
2. Section two includes information about the independent research variables (Efficiency, Reliability, Responsiveness, Fulfillment, and Privacy)

3. Section three includes information about the research dependent variable (Customer satisfaction of E-service quality).

5.6 Questionnaire Building and Design

The research questionnaire was built by reviewing previous related studies and models.

The following table illustrates the referenced studies for each variable and its items.

Table (8): Previous Studies Used For Building and Designing Questionnaire

Mobile Banking				
Variables		Statements	Sub-Variables	Researchers' Sources
Efficiency	1	Mobile banking is simple to use	Ease of use	– (Sagib& Zapan, 2014) – (Nisha, 2016)
	2	Mobile banking makes my banking information easy to access	Easy Info access	– (Saha & Zhao, 2012) – (Zeithaml et al., (2000) – (Parasuraman et al., 2005) – (Lee & Wu (2011)
	3	Mobile banking takes a short time to respond to my banking problems	Problem's response speed	– (Keno & Meku, 2018) – (Barun et al., 2014)
Reliability	1	I know exactly when my transaction will be performed	Accuracy	– (Sagib& Zapan, 2014) – (Nisha, 2016) – (Saha & Zhao, 2012)
	2	Mobile banking services perform reliably	Performance reliability	– (Toor et al., 2016) – (Zhilin et al., 2004)
	3	The operation of mobile banking is dependable	App reliability	– (Keno & Meku, 2018) – (Narteh et al., 2015) – (Jha et al., 2014) – (Phan&Nham, 2016)
Responsiveness	1	Mobile banking provides prompt responses if my transaction is not processed	problem prompt response	– (Sagib& Zapan, 2014) – (Nisha, 2016) – (Saha & Zhao, 2012)
	2	If there is a mistake in a transaction, mobile banking app corrects it right effectively	Effective handling of mistakes	– (Akinci et al., 2010) – (Parasuraman et al., 2005) – (Zhilin et al., 2004)
	3	Mobile banking provides me with	Precise service	– (Narteh, 2015)

Mobile Banking				
Variables		Statements	Sub-Variables	Researchers' Sources
		precise banking services		
Fulfillment	1	Mobile banking provides a confirmation of the service ordered	Service confirmation	– (Saha & Zhao, 2012) – (Parasuraman et al., 2005)
	2	Mobile banking fulfills the majority of my financial needs	Quick confirmation	– (Akinci et al., 2010) – (Purani, 2008)
	3	Mobile banking promptly informs me about important situations (payments, etc.)	Prompt informing	– (Narteh, 2015) – (Khan & Abdulla, 2019)
Privacy	1	It's safe to release my banking information to mobile banking services	Info safety	– (Nisha, 2016) – (Saha & Zhao, 2012)
	2	Mobile banking is secure for my credit card information	Secure mobile for payment	– (Parasuraman et al., 2005) – (Alawneh et al., 2013)
	3	Online transactions that are carried out on mobile are secure	Transaction security	– (Purani et al., 2008) – (Lee & Wu, 2011) – (Collier, 2006) – (Puriwat & Tripopsakul, 2018)

Online Banking				
Variables		Statements	Sub-Variable	Researchers' Sources
Efficiency	1	The speed of online bank's site processes e.g., (login, logout, transactions).	Login process simple	– (Sagib& Zapan, 2014) – (Nisha, 2016)
	2	The online bank's site is simple to use	Ease of use	– (Saha & Zhao, 2012) – (Zeithaml et al., (2000)
	3	Information at this site is well organized	Info organized	– (Parasuraman et al., 2005) – (Lee & Wu (2011) – (Keno & Meku, 2018) – (Barun et al., 2014)
Reliability	1	I can rely on the online bank's site functioning properly	Proper website functionality	– (Sagib& Zapan, 2014) – (Nisha, 2016)
	2	The online bank's site is up and running all the time	Good network construction	– (Saha & Zhao, 2012) – (Toor et al., 2016)
	3	Information content in the online bank's site is easy to understand	Understandable /comprehensible content	– (Zhilin et al., 2004) – (Keno & Meku, 2018) – (Narteh et al., 2015) – (Jha et al., 2014)

				– (Phan & Nham, 2016)
Responsiveness	1	The online bank's site promptly responds to my requests which I made by e-mail or other channels	Prompt response	– (Sagib& Zapan, 2014) – (Nisha, 2016) – (Saha & Zhao, 2012) – (Akinci et al., 2010) – (Parasuraman et al., 2005) – (Zhilin et al., 2004) – (Narteh, 2015)
	2	The online bank's site takes care of problems promptly	Prompt problems handling	
	3	The online bank's site informs me of important information promptly	Prompt info update	
	4	The online bank's site has live online customer service representatives for the service support	Online customer service representative	
Fulfillment	1	The online bank's site provides a confirmation of the service ordered	Service confirmation	– (Saha & Zhao, 2012) – (Parasuraman et al., 2005) – (Akinci et al., 2010) – (Purani, 2008) – (Narteh, 2015) – (Khan & Abdulla, 2019)
	2	The online bank's site delivers services when promised	Dependable services delivery	
	3	The online bank's site delivers the most relevant results as specified	Relevant responses	
Privacy	1	The online bank's site is secure for my credit card information	Secure website for payment	– (Nisha, 2016) – (Saha & Zhao, 2012) – (Parasuraman et al., 2005) – (Alawneh et al., 2013) – (Purani et al., 2008) – (Lee & Wu, 2011) – (Collier, 2006)
	2	The online bank's site allows me only to access my account; no one else can access it	Account security	
	3	The online bank's site provides high protection for my banking transaction	Transaction security	
	4	Online banking's site protects my info from sharing with others	Web info protection	– (Puriwat & Tripopsakul, 2018)

ATM				
Variables		Statements	Sub-Variable	Researchers' Sources
Efficiency	1	Cash is always available in ATM	Cash availability	– (Sagib& Zapan, 2014) – (Nisha, 2016) – (Saha & Zhao, 2012) – (Zeithaml et al., (2000) – (Parasuraman et al., 2005) – (Lee & Wu (2011) – (Keno & Meku, 2018) – (Barun et al., 2014)
	2	Notes(currency) are available in ATM machines on good quality	Notes quality	
	3	ATM machines can be accessed anywhere in the city at researchable distance	ATM city availability/ ATM distribution	
	4	ATM parts, e.g., (touch screen, keypad and ATM card) are working smoothly	Parts work smoothly	

Reliability	1	ATM is always available to use	ATM use availability	– (Sagib& Zapan, 2014)
	2	The money notes from my ATM are original. (no counterfeit money)	Generator availability	– (Nisha, 2016)
	3	I am informed after every transaction is done on ATM. e.g., by SMS	Transactions notification	– (Saha & Zhao, 2012)
Responsiveness	1	ATM support person is available to set right the problems.	On-call Customer support	– (Toor et al., 2016)
	2	ATMs that are broken down are promptly fixed	Prompt maintained	– (Zhilin et al., 2004)
	3	ATM cards (debit cards) are speedily replaced	Card replacing speed	– (Keno & Meku, 2018)
Fulfillment	1	ATM provides fast services	Speed service	– (Narteh et al., 2015)
	2	ATM provides a receipt to confirm transactions	transaction confirmation	– (Phan & Nham, 2016)
	3	ATM fulfills the majority of my financial needs	Services availability	– (Sagib& Zapan, 2014)
Privacy	1	Location of ATM machine is safe to withdraw money	Safe Location	– (Nisha, 2016)
	2	Only one person is allowed to enter the ATM cabin	Cabin privacy	– (Saha & Zhao, 2012)
	3	In the case of two ATMs in the same place, there is a partition between them to maintain privacy	Private place for ATM	– (Parasuraman et al., 2005)

General E-Services		
Customer satisfaction:(V1=SV1+SV2+...+SV7)		Researchers' Sources
	Statements	
1	I am satisfied with the transaction processing via e-banking services	– (Sikdar et al., 2015) – (Toor et al., 2016) – (Cockrill et al., 2009) – (Casalo et al., 2008) –
2	I think I made the correct decision to use the e-banking services	
3	My satisfaction with the e-banking services is high	
4	Overall, e-banking services are better than my expectations	
5	My bank's e-services provide me with all the services that I need	
6	I like to advice family, friends and relatives to use e-banking services	

5.7 Research Methodology:

The researcher depends on the descriptive analysis method as a research methodology to analyze data. The descriptive analysis focuses on describing the phenomenon, determining patterns in the data in order to provide an answer to the questions related to who, what, where, when, and to what extent. It offers what can be known about capacities, needs, methods, practices, policies, populations, and settings in a way that is appropriate to a particular research question (Loeb et al., 2017). The researcher depends on the poll and uses the main program, Statistical Package for the Social Sciences (SPSS 26).

5.8 Data Sources:

The research followed the analytical/descriptive approach in addition to the statistical analysis.

The data were collected from primary and secondary resources. The secondary resources include the use of books, journals, statistics, and web pages. The primary data were collected by using questionnaires that were developed specifically for this research. Many of the measurement tools "questionnaires" used by other researchers were adapted, translated, combined, and modified to fit the purpose of this research. It

developed one questionnaire distributed to 500 respondents to collect the primary data. The researcher retrieved 411 out of them.

5.9 Data Measurement

To have the option to choose the appropriate strategy of analysis, the degree of measurement must be understood. For each sort of estimation, there is/are a fitting technique/s that can be applied and not others.

In this research, ordinal scales were used. The ordinal scale is positioning or rating information that ordinarily uses whole numbers in ascending or descending order. The numbers appointed to the critical (1, 2, 3, 4, 5) do not demonstrate that the interval between scales is equivalent, nor do they show outright amounts. They are only mathematical marks. In light of the Likert scale, we have the following:

Table (9): Measurement Scale.

Item	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Scale	5	4	3	2	1

5.10 Pretest Study

A pretest study of 20 respondents for the questionnaire was conducted before collecting the results of the sample. It provided a trial run for the questionnaire, which involves testing the wordings of the question, identifying ambiguous questions, testing the techniques that are used to collect data, and measuring the effectiveness of standard invitation to respondents.

5.11 Validity of the Questionnaire:

Validity addresses how much any estimating instrument measures what it is proposed to measure (Thatcher, 2010). There are numerous perspectives and strategies for assessing the survey validity:

5.11.1 Internal Validity:

The internal validity of the questionnaire is measured using the correlation coefficient between each item in the field and the entire field.

Table (10) shows the correlation coefficient and the total of the fields for each item of the "efficiency". The p value (Sig.) is less than 0.05. This shows that the correlation coefficient for this field is significant at $\alpha = 0.05$. So it means that the items in this field are consistent and valid for the purpose for which they were designed.

Table (10): Correlation Coefficient of Each Item of “Efficiency” And the Total of This Field

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Cash is always available in ATM	.689*	0.000
2.	Notes(currency) are available in ATM machines on good quality	.655*	0.000
3.	ATM machines can be accessed anywhere in Ramallah city at a researchable distance	.816*	0.000
4.	ATM parts, e.g., (touch screen, keypad, and ATM card) are working smoothly	.791*	0.000
5.	Mobile banking is simple to use	.823*	0.000
6.	Mobile banking makes my banking information easy to access	.377*	0.012
7.	Mobile banking takes a short time to respond to my banking problems	.511*	0.001
8.	The speed of online bank's site processes, e.g., (login, logout, transactions).	.857*	0.000
9.	The online bank's site is simple to use	.872*	0.000
10.	Information at this site is well organized	.883*	0.000

* Correlation is significant at the 0.05 level

Table (11) clarifies the correlation coefficient for each item of the "Reliability" and the field's total. The p-values (Sig.) are less than 0.05, indicating that the correlation coefficients of this field are significant at $\alpha = 0.05$, implying that the items in this field are consistent and valid for the purpose for which they were designed.

Table (11): Correlation Coefficient of Each Item of “Reliability” And The Total Of This Field

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
1.	ATM is always available to use	.740*	0.000
2.	The money notes from my ATM are original. (no counterfeit money)	.660*	0.000
3.	I am informed after every transaction is done on ATM. e.g., by SMS	.607*	0.000
4.	I know exactly when my transaction will be performed	.581*	0.000
5.	Mobile banking services perform reliably	.712*	0.000
6.	The operation of mobile banking is dependable	.861*	0.000
7.	I can rely on the online bank's site functioning properly	.837*	0.000
8.	The online bank's site is up and running all the time	.702*	0.000
9.	Information contained on the online bank's site is easy to understand	.749*	0.000

* Correlation is significant at the 0.05 level

Table (12) clarifies the correlation coefficient for each item of the "Responsiveness" and the field's total. The p-values (Sig.) are less than 0.05, indicating that the correlation coefficients of this field are significant at = 0.05, implying that the items in this field are consistent and valid for the purpose for which they were designed.

Table (12): Correlation Coefficient of Each Item of "Responsiveness" And The Total Of This Field

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
1.	ATM support person is available to set right the problems	.881*	0.000
2.	ATMs that are broken down are promptly fixed	.626*	0.000
3.	ATM cards (debit cards) are speedily replaced	.756*	0.000
4.	Mobile banking provides prompt responses if my transaction is not processed	.806*	0.000
5.	If there is a mistake in a transaction, the mobile banking app corrects it right effectively	.852*	0.000
6.	Mobile banking provides me with precise banking services	.816*	0.000
7.	The online bank's site promptly responds to my requests which I made by e-mail or other channels	.732*	0.000
8.	The online bank's site takes care of problems promptly	.876*	0.000

9.	The online bank's site informs me of important information promptly	.751*	0.000
10.	The online bank's site has live online customer service representatives for the service support	.834*	0.000

* Correlation is significant at the 0.05 level

Table (13) clarifies the correlation coefficient for each item of the "Fulfillment" and the field's total. The p-values (Sig.) are less than 0.05, indicating that the correlation coefficients of this field are significant at = 0.05, implying that the items in this field are consistent and valid for the purpose for which they were designed.

Table (13): Correlation Coefficient of Each Item of “Fulfillment” And the Total Of This Field

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
1.	ATM provides fast services	.812*	0.000
2.	ATM provides receipt to confirm transactions	.639*	0.000
3.	ATM fulfills the majority of my financial needs	.645*	0.000
4.	Mobile banking provides a confirmation of the service ordered	.746*	0.000
5.	Mobile banking fulfills the majority of my financial needs	.858*	0.000
6.	Mobile banking promptly informs me about important situations (payments, etc.)	.728*	0.000
7.	The online bank's site provides a confirmation of the service ordered	.814*	0.000
8.	The online bank's site delivers services when promised	.619*	0.000
9.	The online bank's site delivers the most relevant results as specified	.733*	0.000

* Correlation is significant at the 0.05 level

Table (14) clarifies the correlation coefficient for each item of the "Privacy" and the field's total. The p-values (Sig.) are less than 0.05, indicating that the correlation coefficients of this field are significant at = 0.05, implying that the items in this field are consistent and valid for the purpose for which they were designed.

Table (14): Correlation coefficient of each item of “Privacy” and the total of this field

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Location of ATM machine is safe to withdraw money	.695*	0.000
2.	Only one person is allowed to enter the ATM cabin	.536*	0.000
3.	In the case of two ATMs in the same place, there is a partition between them to maintain privacy	.726*	0.000
4.	It's safe to release my banking information to mobile banking services	.627*	0.000
5.	Mobile banking is secure for my credit card information	.841*	0.000
6.	Online transactions that are carried out on mobile are secure	.823*	0.000
7.	The online bank's site is secure for my credit card information	.710*	0.000
8.	The online bank's site allows me only to access my account; no one else can access it	.746*	0.000
9.	The online bank's site provides high protection for my banking transaction	.727*	0.000
10.	Online banking's site protects my info from sharing with others	.735*	0.000

* Correlation is significant at the 0.05 level

Table (15) clarifies the correlation coefficient for each item of the "Customer satisfaction of E-service quality" and the field's total. The p-values (Sig.) are less than 0.05, indicating that the correlation coefficients of this field are significant at $\alpha = 0.05$, implying that the items in this field are consistent and valid for the purpose for which they were designed.

Table (15): Correlation coefficient of each item of "Customer satisfaction of E-service quality" and the total of this field

No.	Item	Pearson Correlation Coefficient	P-Value (Sig.)
1.	I am satisfied with the transaction processing via e-banking services	.918*	0.000
2.	My satisfaction with the e-banking services is high	.953*	0.000
3.	My bank's e-services provide me with all the services that I need	.888*	0.000
4.	I think I made the correct decision to use the e-banking services	.823*	0.000
5.	Overall, e-banking services are better than my expectations	.850*	0.000
6.	I like to advise family, friends, and relatives to use e-banking services	.895*	0.000

* Correlation is significant at the 0.05 level

5.11.2 Structure Validity:

For measuring the validity of the questionnaire structure, the researcher depends on the statistical test (structure validity test), which depends on testing the validity of each field and the validity of the whole questionnaire. In other words, the test examines the correlation coefficient amongst one field and all the fields of the questionnaire that have the same level of scale.

Table (16) clarifies the correlation coefficient for each field and the whole questionnaire. The p-values (Sig.) are less than 0.05, so the correlation coefficients of all the fields are significant at $\alpha = 0.05$, so it can be said that the fields are valid to be measured what it was set for to achieve the main aim of the study.

Table (16): Correlation Coefficient of Each Field And The Whole Questionnaire

No.	Field	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Efficiency	.865*	0.000
2.	Reliability	.901*	0.000
3.	Responsiveness	.845*	0.000
4.	Fulfillment	.872*	0.000
5.	Privacy	.826*	0.000
	E-service quality	.988*	0.000
	Customer satisfaction of E-service quality	.883*	0.000

* Correlation is significant at the 0.05 level

5.12 Reliability of the Questionnaire:

The reliability of an instrument is the degree of consistency that measures the attribute; it is supposed to be measured (George and Mallery, 2006). The lower the variance produced by an instrument in repeated measurements of an attribute, the better its dependability. A measuring tool's reliability might be defined as its stability, consistency, or dependability. The test is given to the same group of people twice, and the results are compared by computing a reliability coefficient. (George and Mallery, 2006). To ensure the reliability of the questionnaire, Cronbach's Coefficient Alpha should be applied.

5.13 Cronbach's Coefficient Alpha

Cronbach's Alpha is intended to measure internal consistency; that is, measure exactly the same thing? The typical scope of Cronbach's coefficient alpha value between 0.0 and + 1.0 and the higher values reflect a more serious level of inside consistency. The Cronbach's coefficient alpha was determined for each field of the questionnaire (George and Mallery, 2006).

Table (17): Cronbach's Alpha for Each Field of the Questionnaire

No.	Field	Cronbach's Alpha
1.	Efficiency	0.921
2.	Reliability	0.883
3.	Responsiveness	0.939
4.	Fulfillment	0.902
5.	Privacy	0.916
	E-service quality	0.976
	Customer satisfaction of E-service quality	0.943
	All items of the questionnaire	0.980

Table (17) shows the values of Cronbach's Alpha for each field of the questionnaire and the entire questionnaire. For the fields, values of Cronbach's Alpha were in the range from 0.883 and 0.976. This range is considered high; the result ensures the reliability of each field of the questionnaire. Cronbach's Alpha equals 0.980 for the entire questionnaire, which indicates excellent reliability of the entire questionnaire.

As a result, the researcher demonstrated that the questionnaire was valid, reliable, and acceptable for distribution to the population sample.

5.14 Test of normality

Table (18) shows the results for the Kolmogorov-Smirnov test of normality. From table (18) the p-value for each variable is greater than 0.05 level of significance. The distributions of these variables will then be normally distributed. As a result, parametric tests should be utilized to analyze the statistical data.

Table (18): Kolmogorov-Smirnov Test

Field	Kolmogorov-Smirnov	
	Statistic	P-value
Efficiency	0.579	0.891
Reliability	0.742	0.641
Responsiveness	0.675	0.752
Fulfillment	0.488	0.971
Privacy	0.601	0.863
E-service quality	0.663	0.771
Customer satisfaction of E-service quality	0.709	0.695
All items of the questionnaire	0.551	0.922

5.15 Statistical analysis Tools

The researcher used both qualitative and quantitative data analysis methodologies to analyze the data. The data analysis was carried by using (SPSS 26). The researcher utilizes the following statistical tools:

- 1) Kolmogorov-Smirnov test of normality.
- 2) Pearson correlation coefficient for validity.
- 3) Cronbach's Alpha for Reliability Statistics.
- 4) Frequency and Descriptive analysis.
- 5) One-sample T-test.
- 6) Multiple Linear Regression Model.

Chapter 6

Data Analysis and Hypotheses Testing

6.1 Personal information

The following table represents the distribution of respondents according to their demographic information.

As shown, most of the respondents are male. From the researcher's point of view, this reflects the nature of the Palestinian community, which is characterized as a masculine society, where men are primarily responsible for performing the job and executing financial and banking transactions.

Also, most of the respondents are lying in the youth age category from (18-30) and from (31-40), which is consistent with recent statistics published by the Palestinian Central Bureau of Statistics for the year 2021; which shows that 28.4% of the Palestinian population are youth people (www.pcbs.gov.ps, 2021).

Moreover, 51.6% of the study samples live in Ramallah and Al-Bireh, and 65.9% hold a bachelor's degree. As well, 70.8 of them are private-sector workers, and 34.3% are receiving salaries ranging from 1950 to 3000 ILS.

Table (19): Personal information (N=411)

Personal information		Frequency	Percent
Gender	Male	275	66.9
	Female	136	33.1
Age	18-30 years	172	41.8
	31 –40 years	178	43.3
	41 –50 years	51	12.4
	51 - 60 years	9	2.2
	More than 60 years	1	0.2
The province you live in / closest to your residence	Ramallah and Al-Bireh	212	51.6
	Jerusalem	40	9.7
	Hebron	26	6.3
	Bethlehem	5	1.2
	Jericho	10	2.4

	Sulfites	41	10.0
	Nablus	35	8.5
	Tubas	5	1.2
	Qalqilya	10	2.4
	Tulkarm	19	4.6
	Fetus	7	1.7
	Gaza	1	0.2
Educational Level	High school or less	9	2.2
	College	15	3.6
	Bachelor	271	65.9
	M A	105	25.5
	PhD	11	2.7
	Other	-	-
Job Nature	Student	8	1.9
	public sector employee	50	12.2
	private sector employee	291	70.8
	free work	45	10.9
	retired	3	0.7
	Unemployed	9	2.2
	Other	5	1.2
What is your monthly income range? (ILS)	Less than 1950, ILS	95	23.1
	1950-3000 ILS	141	34.3
	3001-5000 ILS	45	10.9
	more than 5000 ILS	130	31.6

Hence, the following table shows the personal information of respondents related to their use of banking services. The table shows that most of the respondents have been using e-services in banks for 1-5 years. Also, 80% of respondents use mostly mobile banking, while 77.4% of them are mainly using ATMs, and the other 66.4 are mainly using online banking. As well, all services are used mainly on a weekly basis.

Though, most of the respondents, with a percent of 33.3% have only one bank account, which means that the customers are relatively satisfied with the services provided by their banks. However, having more than one account indicates that customers have needs that they feel are not satisfied by having one bank, so they opt to have another bank account.

Table (20): Personal Information of Respondents Related To Their Use of Banking Services (N=411)

personal information of respondents related to their use of banking services		Frequency	Percent
How many bank accounts do you have?	One Only	137	33.3
	Two	33	8.0
	Three	54	13.1
	More than three	187	45.5
Choose the bank whose electronic services are used the most?	Bank of Palestine	73	17.8
	Arab Islamic Bank	55	13.4
	Palestine Islamic Bank	107	26.0
	Palestine Investment Bank	4	1.0
	Al Quds Bank	15	3.6
	The National Bank TNB	25	6.1
	Safa Bank	8	1.9
	Arab Bank	108	26.3
	Cairo Amman Bank	7	1.7
	Bank of Jordan	5	1.2
	Housing Bank	1	0.2
	Egyptian Arab Land Bank	-	-
	Jordan Ahli Bank	3	0.7
What electronic banking services do you use?	ATM	318	77.4
	Mobile Banking	329	80.0
	Online Banking	273	66.4
How often do you use ATMs?	Daily	30	7.3
	Weekly	204	49.6
	Monthly	78	19.0
	Yearly	5	1.2
	Never	94	22.9
How frequently do you use mobile banking?	Daily	82	20.0
	Weekly	157	38.2
	Monthly	73	17.8
	Yearly	9	2.2
	Never	90	21.9
How frequently do you use internet banking?	Daily	37	9.0
	Weekly	117	28.5
	Monthly	100	24.3
	Yearly	6	1.5
	Never	151	36.7
How many years have you used the electronic services of the bank you deal with more than others?	less than one year	56	13.6
	1 year-5 year	247	60.1
	6 years-10 years	75	18.2
	More than 10 years	33	8.0

Analysis for each field

6.2 E-service quality:

6.2.1 Efficiency

Table (21) shows the following results:

The mean of item #5 "Mobile banking is simple to use," equals 4.12 (82.31%), Test-value = 22.23, and P-value = 0.000, which is smaller than the level of significance $\alpha = 0.05$. Because the test's sign is positive, the mean of this item is significantly higher than the hypothesized value of 3. We conclude that the respondents agreed with this item.

The mean of item #7 "Mobile banking takes a short time to respond to my banking problems," equals 3.84 (76.84%), Test-value = 15.47, and P-value = 0.000, which is smaller than the level of significance $\alpha = 0.05$. Because the test's sign is positive, the mean of this item is significantly higher than the hypothesized value of 3. We conclude that the respondents agreed with this item.

The mean of the field "Efficiency" equals 3.97 (79.43%), Test-value = 27.07, and P-value=0.000, which is smaller than the significance $\alpha = 0.05$ level. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. It is concluded that the respondents agreed to the field of "Efficiency."

The above results indicate that respondents enjoy a high level of efficiency while using internet banking, as it is easy to use and can easily access their required information. The results fit with the study of (Abu Awad, 2020), where 52.8% of their respondents prefer and enjoy using internet banking.

However, little improvements can be made to faster the response time of mobile banking as a result of issues related to preventing Palestinian service providers from

importing needed technologies such as 4G (or higher) technology on the mobile network, which exists, it will provide many different of services (Jaroon, 2014).

Table (21): Means and Test Values for “Efficiency”

	Item	Mean	S.D	Proportio nal mean (%)	Test value	P-value (Sig.)	Rank
1.	Cash is always available in ATM	4.04	0.99	80.88	18.72*	0.000	4
2.	Notes(currency) are available in ATM machines on good quality	3.96	0.96	79.18	17.87*	0.000	8
3.	ATM machines can be accessed anywhere in Ramallah city at a researchable distance	3.97	0.99	79.31	17.39*	0.000	7
4.	ATM parts, e.g.,(touch screen, keypad, and ATM card) are working smoothly	3.89	1.00	77.80	15.87*	0.000	9
5.	Mobile banking is simple to use	4.12	0.91	82.31	22.23*	0.000	1
6.	Mobile banking makes my banking information easy to access	4.10	0.99	82.01	20.15*	0.000	2
7.	Mobile banking takes a short time to respond to my banking problems	3.84	0.99	76.84	15.47*	0.000	10
8.	The speed of online bank's site processes, e.g., (login, logout, transactions).	4.03	0.93	80.51	18.32*	0.000	6
9.	The online bank's site is simple to use	4.07	0.86	81.39	20.63*	0.000	3
10.	Information at this site is well organized	4.03	0.88	80.66	19.30*	0.000	5
	All items of the field	3.97	0.71	79.43	27.07*	0.000	

* The mean is significantly different from 3

6.2.2 Reliability

Table (22): shows the following results:

The mean of item #2 "The money notes from my ATM are original. (No counterfeit money)," equals 4.64 (92.83%), Test-value = 42.12, and P-value = 0.000, which is smaller than the level of significance $\alpha = 0.05$. Because the test's sign is positive, the mean of this item is significantly higher than the hypothesized value of 3. We conclude that the respondents agree with this item.

The mean of item #4 "I know exactly when my transaction will be performed," equals 3.54 (70.88%), Test-value = 9.25, and P-value = 0.000, which is smaller than the level

of significance $\alpha = 0.05$. Because the test's sign is positive, the mean of this item is significantly higher than the hypothesized value of 3. We conclude that the respondents agree with this item.

The mean of the field "Reliability" equals 4.08 (81.56%), Test-value = 32.54, and P-value=0.000, which is smaller than the significance $\alpha = 0.05$ level. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. It is concluded that the respondents agreed to the field of "Reliability."

The above results indicate that respondents are enjoying high levels of reliability regarding banking e-services. As well, Aborampah (2010) concluded that reliable banks could effectively build the confidence of current customers and attract new ones (Jaroon, 2014).

Table (22): Means and Test Values for "Reliability"

	Item	Mean	S.D	Proportiona l mean (%)	Test value	P-value (Sig.)	Rank
1.	ATM is always available to use	3.82	0.95	76.42	15.44*	0.000	8
2.	The money notes from my ATM are original. (no counterfeit money)	4.64	0.70	92.83	42.12*	0.000	1
3.	I am informed after every transaction is done on ATM. e.g., by SMS	4.56	0.81	91.26	34.55*	0.000	2
4.	I know exactly when my transaction will be performed	3.54	1.07	70.88	9.25*	0.000	9
5.	Mobile banking services perform reliably	4.11	0.86	82.19	23.42*	0.000	3
6.	The operation of mobile banking is dependable	4.04	0.91	80.73	20.59*	0.000	5
7.	I can rely on the online bank's site functioning properly	4.09	0.88	81.76	20.46*	0.000	4
8.	The online bank's site is up and running all the time	3.91	1.00	78.24	15.02*	0.000	7
9.	Information contained on the online bank's site is easy to understand	3.99	0.95	79.78	17.15*	0.000	6
	All items of the field	4.08	0.66	81.56	32.54*	0.000	

* The mean is significantly different from 3

6.2.3 Responsiveness

Table (23): Shows the following results:

The mean of item #6 "Mobile banking provides me with precise banking services," equals 3.92 (78.48%), Test-value = 19.08, and P-value = 0.000, which is smaller than the level of significance $\alpha = 0.05$. Because the test's sign is positive, the mean of this item is significantly higher than the hypothesized value of 3. We conclude that the respondents agree with this item.

The mean of item #5 "If there is a mistake in a transaction, mobile banking app corrects it right effectively," equals 3.24 (64.74%), Test-value = 4.00, and P-value = 0.000, which is smaller than the level of significance $\alpha = 0.05$. Because the test's sign is positive, the mean of this item is significantly higher than the hypothesized value of 3. We conclude that the respondents agree with this item.

The mean of the field "Responsiveness" equals 3.53 (70.55%), Test-value = 13.24, and P-value = 0.000, which is smaller than the significance $\alpha = 0.05$ level. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value. It is concluded that the respondents agreed to the field of "Responsiveness."

The above result is consistent with Abu Awad (2020), who indicate that 76.6% of their respondents were satisfied with the level of high responsiveness by which electronic banking services alert them about completing the transaction.

However, according to Jaroon (2018), customer's satisfaction level was relatively high regarding error-free records. Such results indicate that customers do not want any error in their records, while any error could impact their accounts in a way or another.

Table (23): Means and Test Values for “Responsiveness”

	Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	ATM support person is available to set right the problems	3.39	1.18	67.80	5.89*	0.000	8
2.	ATMs that are broken down are promptly fixed	3.29	1.03	65.79	5.02*	0.000	9
3.	ATM cards (debit cards) are speedily replaced	3.58	1.11	71.57	9.33*	0.000	5
4.	Mobile banking provides prompt responses if my transaction is not processed	3.70	1.02	73.92	12.41*	0.000	3
5.	If there is a mistake in a transaction, the mobile banking app corrects it right effectively	3.24	1.08	64.74	4.00*	0.000	10
6.	Mobile banking provides me with precise banking services	3.92	0.88	78.48	19.08*	0.000	1
7.	The online bank's site promptly responds to my requests which I made by e-mail or other channels	3.67	1.07	73.33	10.34*	0.000	4
8.	The online bank's site takes care of problems promptly	3.50	1.07	70.04	7.74*	0.000	7
9.	The online bank's site informs me of important information promptly	3.79	1.01	75.75	12.88*	0.000	2
10.	The online bank's site has live online customer service representatives for the service support	3.57	1.13	71.43	8.36*	0.000	6
	All items of the field	3.53	0.79	70.55	13.24*	0.000	

* The mean is significantly different from 3

6.2.4 Fulfilment

Table (24) shows the following results:

The mean of item #2 “ATM provides receipt to confirm transactions” equals 4.32 (86.42%), Test-value = 28.45, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this item is significantly greater than the hypothesized value. It is concluded that the respondents agreed to this item.

The mean of item #9 "The online bank's site delivers the most relevant results as specified," equals 3.73 (74.65%), Test-value = 12.35, and P-value = 0.000, which is smaller than the level of significance $\alpha = 0.05$. Because the test's sign is positive, the mean of this item is significantly higher than the hypothesized value of 3. We conclude that the respondents agree with this item.

The mean of the field "Fulfillment" equals 4.02 (80.32%), Test-value = 29.89, and P-value=0.000, which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. It is concluded that the respondents agreed to the field of "Fulfillment."

According to recent statistics published by the Association of Banks in Palestine for 2019, the number of ATM cards had increased by 11% (from 13,000 to 128,000). Also, the number of ATM's cash withdrawals transactions had increased to reach 14 million with a total value of 4 milliard dollar. Such results reflect that clients are enjoying a high level of fulfillment while using ATMs. They transfer their good experience to other relatives and friends (Association of Banks in Palestine, 2019).

Moreover, 85.9% of Abu Awad (2020) study respondents believe that using e-banking services can effectively save time and effort, which also fits with (Srouf, 2011; and Al-Bahi, 2016).

Table (24): Means and Test Values for “Fulfillment”

	Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	ATM provides fast services	4.15	0.86	83.08	23.98*	0.000	2
2.	ATM provides a receipt to confirm transactions	4.32	0.83	86.42	28.45*	0.000	1
3.	ATM fulfills the majority of my financial needs	4.03	0.87	80.69	21.09*	0.000	5
4.	Mobile banking provides a confirmation of the service ordered	4.09	0.85	81.82	23.37*	0.000	3
5.	Mobile banking fulfills the majority of my financial needs	3.89	1.00	77.75	16.18*	0.000	7
6.	Mobile banking promptly informs me about important situations (payments, etc.)	3.94	0.92	78.84	18.50*	0.000	6
7.	The online bank's site provides a confirmation of the service ordered	4.08	0.92	81.54	19.29*	0.000	4
8.	The online bank's site delivers services when promised	3.84	0.95	76.70	14.52*	0.000	8
9.	The online bank's site delivers the most relevant results as specified	3.73	0.98	74.65	12.35*	0.000	9
	All items of the field	4.02	0.68	80.32	29.89*	0.000	

* The mean is significantly different from 3

6.2.5 Privacy

Table (25) shows the following results:

The mean of item #10, "Online banking's site protects my info from sharing with others," equals 4.22 (84.40%), Test-value = 25.14, and P-value = 0.000, which is smaller than the level of significance $\alpha = 0.05$. Because the test's sign is positive, the mean of this item is significantly higher than the hypothesized value of 3. We conclude that the respondents agree with this item.

The mean of item #3, "In case of two ATMs in the same place, there is a partition between them to maintain privacy," equals 3.50 (69.94%), Test-value = 7.36, and P-value = 0.000, which is smaller than the level of significance $\alpha = 0.05$. Because the

test's sign is positive, the mean of this item is significantly higher than the hypothesized value of 3. We conclude that the respondents agree with this item.

The mean of the field "Privacy" equals 3.88 (77.60%), Test-value = 24.58, and P-value=0.000, which is smaller than the significance $\alpha = 0.05$ level. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. It is concluded that the respondents agreed to the field of "Privacy."

The study results fit with Abu Awad (2020), where 77% and 65.3% of respondents are satisfied with the level of privacy and security while using ATMs and internet banking, respectively.

Consequently, Jaroon (2014) believed that banks should ensure that data is protected well by their customers; he also indicated that this result is supported by Lau et al. (2013), who emphasize the necessity of protecting customers' data from being exposed to marketers.

From the researcher's point of view, the increase of privacy level would positively affect banking e-services. People always believe that all information related to their financial resources should be kept as holy secrets, and they often share such information with only their close people. Thus, when customers are satisfied with the level of privacy while using ATMs and online banking, they tend to use and acquire more services and transactions to be done by both channels.

Table (25): Means and Test Values for “Privacy”

	Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	Location of ATM machine is safe to withdraw money	4.03	0.93	80.69	19.75*	0.000	4
2.	Only one person is allowed to enter the ATM cabin	3.67	1.16	73.46	10.33*	0.000	9
3.	In the case of two ATMs in the same place, there is a partition between them to maintain privacy	3.50	1.20	69.94	7.36*	0.000	10
4.	It's safe to release my banking information to mobile banking services	3.72	1.12	74.47	11.77*	0.000	8
5.	Mobile banking is secure for my credit card information	3.87	0.98	77.45	16.16*	0.000	7
6.	Online transactions that are carried out on mobile are secure	3.91	0.95	78.30	17.42*	0.000	6
7.	The online bank's site is secure for my credit card information	3.97	0.84	79.49	19.12*	0.000	5
8.	The online bank's site allows me only to access my account; no one else can access it	4.21	0.84	84.18	23.70*	0.000	2
9.	The online bank's site provides high protection for my banking transaction	4.14	0.80	82.78	23.49*	0.000	3
10.	Online banking's site protects my info from sharing with others	4.22	0.80	84.40	25.14*	0.000	1
	All items of the field	3.88	0.71	77.60	24.58*	0.000	

* The mean is significantly different from 3

In General, “E-service quality”:

Table (26) shows the mean of all items equals 3.89 (77.81%), Test-value = 29.12, and P-value =0.000, which is smaller than the significance $\alpha = 0.05$ level. The sign of the test is positive, so the mean of all items is significantly smaller than the hypothesized value 3. It is concluded that the respondents agreed to all items of E-service quality.

The results show that respondents agreed highly with all dimensions of e-service quality. The researcher believes that Palestinian banks are exerting solid efforts to keep pace with the high level of competition in the banking industry at both local and

international markets. The reports published by the Palestinian Monetary Authority show that Palestinian banks continuously work to improve their provision of e-services. Likewise, the entrance of technology in all life aspects and the wide use of mobiles among individuals from various demographic categories had made it easier and more preferable for people to perform their financial transactions using their mobiles and laptops; and save their time and effort.

Too, the spread of Covid-19 during the last two years had paved the way for more and more use of technology to get things done from home, which had been reflected clearly in the banking sector.

Table (26): Means and Test Values for “E-service quality”

Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
Efficiency	3.97	0.71	79.43	27.07*	0.000	3
Reliability	4.08	0.66	81.56	32.54*	0.000	1
Responsiveness	3.53	0.79	70.55	13.24*	0.000	5
Fulfillment	4.02	0.68	80.32	29.89*	0.000	2
Privacy	3.88	0.71	77.60	24.58*	0.000	4
All Items of E-service quality	3.89	0.61	77.81	29.12*	0.000	

*The mean is significantly different from 3

6.3 Customer satisfaction of E-service quality

Table (27) shows the following results:

- The mean of item #4 "I think I made the correct decision to use the e-banking services," equals 4.10 (82.04%), Test-value = 24.84, and P-value = 0.000, which is smaller than the level of significance $\alpha = 0.05$. Because the test's sign is positive, the mean of this item is significantly higher than the hypothesized value of 3. We conclude that the respondents agree with this item.

- The mean of item #5 "Overall, e-banking services is better than my expectations," equals 3.65 (73.09%), Test-value = 12.88, and P-value = 0.000, which is smaller than the level of significance $\alpha = 0.05$. Because the test's sign is positive, the mean of this item is significantly higher than the hypothesized value of 3. We conclude that the respondents agree with this item.
- The mean of the field "Customer satisfaction of E-service quality" equals 3.88 (77.63%), Test-value = 21.37, and P-value=0.000, which is smaller than the level of significance $\alpha = 0.05$. Because the test's sign is positive, the mean of this item is significantly higher than the hypothesized value of 3. We conclude that the respondents agree with this item.

The above results indicate that there is a relatively high level of customer satisfaction with the provided e-services, which is consistent with Al-Foqahaa (2012), who conclude that the quality of banking e-service dimensions leave a positive impression for customers with regard to the service they receive in terms of treatment, speed, reliability, and other spatial implications, which have an increased amount of satisfaction resulting from the occurrence of a match between what is expected and what is existing for the banking service.

Table (27): Means and Test Values for "Customer Satisfaction of E-Service Quality"

	Item	Mean	S.D	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	I am satisfied with the transaction processing via e-banking services	3.91	0.94	78.10	19.60*	0.000	3
2.	My satisfaction with the e-banking services is high	3.82	0.94	76.45	17.69*	0.000	4
3.	My bank's e-services provide me	3.73	1.04	74.70	14.38*	0.000	5

	with all the services that I need						
4.	I think I made the correct decision to use the e-banking services	4.10	0.90	82.04	24.84*	0.000	1
5.	Overall, e-banking services are better than my expectations	3.65	1.03	73.09	12.88*	0.000	6
6.	I like to advise family, friends, and relatives to use e-banking services	4.07	0.97	81.41	22.46*	0.000	2
	All items of the field	3.88	0.84	77.63	21.37*	0.000	

* The mean is significantly different from 3

6.4 Research Hypothesis

- **There is a significant effect of dimensions of e-service quality dimensions on customer satisfaction of E-service quality**

6.4.1 SUB-Hypothesis:

1. There is a statistically significant effect of Efficiency on Customer satisfaction of E-service quality.
2. There is a statistically significant effect of Reliability on Customer satisfaction of E-service quality.
3. There is a statistically significant effect of Responsiveness on Customer satisfaction of E-service quality.
4. There is a statistically significant effect of fulfillment on Customer satisfaction of E-service quality.
5. There is a statistically significant effect of Privacy on Customer satisfaction of E-service quality.

To test this hypothesis, the Multiple Linear Regression Model was used, and the following table illustrates this:

The Multiple correlation coefficient $R = 0.751$ and $R\text{-Square} = 0.558$. This means 55.8% of the variation in customer satisfaction of E-service quality is explained by all of the

independent variables together "Efficiency, Reliability, Responsiveness, Fulfillment, and Privacy."

The analysis of variance for the regression model. $F=100.543$, p-value (Sig.) less than 0.05, so there is a significant relationship between the dependent variable customer satisfaction of E-service and the independent variables "Efficiency, Reliability, Responsiveness, Fulfillment, and Privacy."

For the variable "Efficiency, "the t-test $=2.783$, The P-value (Sig.) is less than 0.05, indicating that this variable is statistically significant. Since the sign of the test is positive, then there is a significant positive effect of the variable efficiency on customer satisfaction of E-service. Hence, according to the e-SERVQUAL model developed by (Zeithaml et al., 2000), efficiency aims to enhance the capability for a customer to visit the webpage and locate their desired information without great effort.

Additionally, Bacetic and Persson (2018) had found that efficiency contributes to customer satisfaction in e-banking.

For the variable "Reliability, "the t-test $=0.067$, the P-value (Sig.) more than 0.05, hence this variable is statistically insignificant. Then there is an insignificant effect of the variable reliability on customer satisfaction of E-service. Hence, this result contradicts with the model of e-SERVQUAL developed by (Zeithaml et al., 2000); reliability plays a role in enhancing satisfaction by improving the technical aspect of the websites and applications; functionality and availability are the main features. Consequently, it is also contradicting with (Apondi, 2016; Onwonga et al., 2013; and Al-Azzam, 2015), who stated that reliability and empathy are the most critical service quality dimensions that contribute to customer satisfaction in banks.

For the variable "Responsiveness, "the t-test =4.859, the P-value (Sig.) is less than 0.05, indicating that this variable is statistically significant. Since the sign of the test is positive, then there is a significant positive effect of the variable responsiveness on customer satisfaction of E-service. For instance, the findings of Al-Azzam (2015) demonstrated that responsiveness has a significant influence on customer satisfaction.

For the variable "Fulfillment, "the t-test =4.532, the P-value (Sig.) is less than 0.05, indicating that this variable is statistically significant. Since the sign of the test is positive, then there is a significant positive effect of the variable Fulfillment on customer satisfaction of E-service. As well, based on the model of e-SERVQUAL developed by (Zeithaml et al., 2000), fulfillment would enhance satisfaction by ensuring the certainty of promised services, such as delivering on time and having the service available. Additionally, Bacetic and Persson (2018) had found that Fulfillment contributes to customer satisfaction in e-banking.

For the variable "Privacy, "the t-test =3.775, the P-value (Sig.) is less than 0.05, indicating that this variable is statistically significant. Since the sign of the test is positive, then there is a significant positive effect of the variable privacy on customer satisfaction of E-service. Consequently, privacy is associated with security when using online services, such as ensuring that data and credit card information will not be shared, which directly impacts satisfaction. According to Bacetic and Persson (2018), privacy is perceived to positively affect customer satisfaction.

Table (28): Result of Multiple Linear Regression Analysis

Variable	B	T	Sig.	R	R-Square	F	Sig.
(Constant)	0.205	1.109	0.268	0.751	0.558	100.543**	0.000
Efficiency	0.170	2.783*	0.006				
Reliability	0.005	0.067	0.946				
Responsiveness	0.262	4.859*	0.000				
Fulfillment	0.329	4.532*	0.000				
Privacy	0.199	3.775*	0.000				

* The variable is statistically significant at 0.05 levels

* * The relationship is statistically significant at 0.05 levels

The results show that respondents agreed that all e-service quality dimensions, except reliability, affect customer satisfaction with different ranks and effective rates. This result, except, reliability fits with Apondi (2016), who showed that service quality dimensions significantly contributed to customer satisfaction in the banking industry.

Specifically, the four dimensions have different degrees of effect on customer satisfaction. As shown, responsiveness has the highest influence degree on customer satisfaction, with a t-test =4.859. Following respectively, Fulfillment, Privacy, and Efficiency, which influence differently the level of customer satisfaction with a decreasing rate. According to the results, "Reliability" has no influence on the level of customer satisfaction.

- **There is a significant differences between E-Service Quality and Customer Satisfaction denoted to demographic variables.**

6.4.2 Demographic Variables:

1. Gender

Table (29) shows that the p-value (Sig.) is greater than the level of significance $\alpha = 0.05$ for the fields "Fulfillment, Privacy and Customer satisfaction of E-service quality", then

there is insignificant difference among the respondents toward these fields due to gender. It can be said that gender has no effect on these fields.

For the other fields, which are "efficiency, reliability, and Responsiveness" the p-value (Sig.) is smaller than the level of significance $\alpha = 0.05$, then there is a significant difference among the respondents toward these fields due to gender. It can be said that gender effects the other fields.

Table (29): Independent Samples T-test of the fields and their p-values for gender

No.	Field	Means		Test Value	Sig.
		Male	Female		
1.	Efficiency	4.05	3.80	3.346*	0.001
2.	Reliability	4.14	3.94	2.833*	0.005
3.	Responsiveness	3.60	3.38	2.578*	0.010
4.	Fulfillment	4.05	3.95	1.253	0.211
5.	Privacy	3.92	3.79	1.645	0.101
	E-service quality	3.95	3.77	2.698*	0.007
	Customer satisfaction of E- service quality	3.91	3.82	0.969	0.333
	All items of the questionnaire	3.91	3.73	2.683*	0.008

* The mean difference is significant a 0.05 level

2. Age

Table (30) shows that the p-value (Sig.) is smaller than the level of significance $\alpha = 0.05$ for the fields "Efficiency and Reliability", then there is a significant difference among the respondents toward these fields due to age. It can be said that age has an effect on these fields.

For the other fields, the p-value (Sig.) is greater than the level of significance $\alpha = 0.05$, and then there is insignificant difference among the respondents toward these fields due to age. It can be said that age does not effect on the other fields.

Table (30): ANOVA test of the fields and their p-values for age

No.	Field	Means					Test Value	Sig.
		18-30 years	31 –40 years	41 –50 years	51 - 60 years	More than 60 years		
1.	Efficiency	3.85	4.00	4.24	4.44	3.29	4.374*	0.002
2.	Reliability	4.00	4.08	4.26	4.56	3.50	2.922*	0.021
3.	Responsiveness	3.47	3.57	3.59	3.63	2.67	0.742	0.564
4.	Fulfillment	3.97	4.03	4.05	4.44	3.67	1.272	0.281
5.	Privacy	3.88	3.87	3.80	4.41	4.00	1.387	0.238
	E-service quality	3.83	3.90	3.99	4.28	3.42	1.825	0.123
	Customer satisfaction of E-service quality	3.85	3.88	3.98	4.11	3.00	0.678	0.608
	All items of the questionnaire	3.79	3.89	3.91	4.23	3.35	1.505	0.200

* The mean difference is significant a 0.05 level

3. Educational Level

Table (31) shows that the p-value (Sig.) is greater than the level of significance $\alpha = 0.05$ for the fields “Responsiveness, Privacy and E-service quality”, then there is insignificant difference among the respondents toward these fields due to educational level. It can be said that educational level has no effect on these fields.

For the other fields, the p-value (Sig.) is smaller than the level of significance $\alpha = 0.05$, then there is a significant difference among the respondents toward these fields due to educational level. It can be said that educational level has an effect on the other fields.

Table (31): ANOVA test of the fields and their p-values for educational level

No.	Field	Means					Test Value	Sig.
		High school or less	College	Bachelor	MA	PhD		
1.	Efficiency	3.44	3.71	3.94	4.07	4.64	4.323*	0.002
2.	Reliability	3.59	4.11	4.04	4.17	4.43	2.496*	0.042
3.	Responsiveness	3.09	3.45	3.53	3.56	3.63	0.725	0.575
4.	Fulfillment	3.25	4.02	3.99	4.11	4.34	3.737*	0.005
5.	Privacy	3.52	4.04	3.87	3.94	3.67	1.081	0.366
	E-service quality	3.37	3.86	3.87	3.97	4.15	2.365	0.052
	Customer satisfaction of E-service quality	3.02	3.84	3.88	3.95	3.98	2.643*	0.033
	All items of the questionnaire	3.24	3.84	3.83	3.96	3.98	2.829*	0.025

* The mean difference is significant a 0.05 level

4. Job Nature

Table (32) shows that the p-value (Sig.) is greater than the level of significance $\alpha = 0.05$ for the fields “Fulfillment and Privacy”, then there is insignificant difference among the respondents toward these fields due to job nature. It can be said that job nature has no effect on these fields.

For the other fields, the p-value (Sig.) is smaller than the level of significance $\alpha = 0.05$, then there is a significant difference among the respondents toward these fields due to job nature. It can be said that job nature has an effect on the other fields.

Table (32): ANOVA test of the fields and their p-values for job nature

No.	Field	Means							Test Value	Sig.
		Student	public sector employee	private sector employee	free work	retired	Unemployed	Other		
1.	Efficiency	3.38	3.73	4.08	3.65	4.06	3.74	3.65	4.817*	0.000
2.	Reliability	3.81	3.85	4.17	3.84	3.83	3.82	4.01	3.251*	0.004
3.	Responsiveness	3.32	3.21	3.64	3.24	3.33	3.10	3.17	4.043*	0.001
4.	Fulfillment	3.71	3.89	4.06	3.92	3.92	3.94	3.88	0.915	0.484
5.	Privacy	3.78	3.62	3.95	3.80	3.93	3.73	3.51	1.828	0.092
	E-service quality	3.59	3.65	3.98	3.68	3.80	3.66	3.64	3.665*	0.001
	Customer satisfaction of E-service quality	3.69	3.56	3.98	3.80	3.94	3.35	3.57	2.801*	0.011
	All items of the questionnaire	3.56	3.57	3.96	3.64	4.11	3.43	3.63	4.660*	0.000

* The mean difference is significant a 0.05 level

Chapter 7

Conclusions and Recommendations

In this chapter, the first section will summarize the study findings. The study conclusion will be listed, and then the study recommendations will be presented. Finally, the future research ideas are stated.

7.1 Results of testing Research Hypothesis

1. The variation in customer satisfaction of E-service quality is explained by all of the independent variables together "Efficiency, Reliability, Responsiveness, Fulfillment, and Privacy."
2. There is a significant relationship between the dependent variable "customer satisfaction of E-service" and the independent variables "Efficiency, Reliability, Responsiveness, Fulfillment, and Privacy."
3. There is a significant positive effect of the variable efficiency on customer satisfaction of E-service.
4. The variable "Reliability" is statistically insignificant. Then there is an insignificant effect of the variable reliability on customer satisfaction of E-service
5. For the variable "Responsiveness, "it is statistically significant. Since the sign of the test is positive, then there is a significant positive effect of the variable responsiveness on customer satisfaction of E-service.
6. For the variable "Fulfillment, it is statistically significant. Since the sign of the test is positive, then there is a significant positive effect of the variable Fulfillment on customer satisfaction of E-service.

7. For the variable "Privacy, "it is statistically significant. Since the sign of the test is positive, then there is a significant positive effect of the variable privacy on customer satisfaction of E-service.
8. The results show that respondents agreed that all e-service quality dimensions except reliability affect customer satisfaction with different ranks and effective rates.
9. Specifically, four dimensions of the model have different degrees of effect on customer satisfaction. As shown, responsiveness has the highest influence degree on customer satisfaction> Following respectively, Fulfillment, Privacy, and Efficiency, which influence differently the level of customer satisfaction with a decreasing rate.
10. The "reliability" dimension had no influence on the level of customer satisfaction.

7.2 Conclusions

1. In general, customers tend to use banking e-services more widely and at an increasing rate.
2. The Most used banking e-services are respectively Mobile banking, ATM, and Online banking.
3. The results show that respondents agreed highly with four dimensions of e-service quality. The means of all dimensions ranged from 70 to 81%, which means that clients believe they receive e-services with a high level of quality.
4. Respondents are highly satisfied with the e-services they receive from banks.
5. The five e-service quality dimensions (Responsiveness, Fulfillment, Privacy, and Efficiency) affect customer satisfaction, whereas some service quality factors contribute more than other factors.

6. Responsiveness has the highest influence degree on customer satisfaction, with a t-test =4.859. Fulfillment, Privacy, Efficiency, and Reliability influence differently the level of customer satisfaction with respectively a decreasing rate.
7. Palestinian banks are operating in a highly complicated environment, where there are internal and external barriers. Internal are controllable and can be enhanced, whereas external are uncontrollable.

7.3 External barriers:

- The limitations of using the latest technologies to facilitate retrieving customer services, e.g., a digital signature, were not officially approved by the Palestinian Monetary Authority.
- The Palestinian Monetary Authority requirements require direct interaction with bank employees to get some services, such as the need to inquire with the PMA system before granting a loan or check book for a customer.
- The political issues in Palestine, which prevent Palestinian service providers from importing needed technologies, e.g., 4G (or higher) technology on the mobile network

7.4 Internal barriers:

- The centralized service creation process is in most of the Palestinian banks, especially foreign banks that have regional management inside Palestine and headquarters outside Palestine, and the need to get approvals from central management, which could delay the process of delivering the services.

- Complicated procedures when providing a service. These complications resulted from a long workflow placed a long time ago without continuously reviewing and improving it.

7.5 Recommendations

1. The level of customer satisfaction should be regularly and periodically measured.
2. The e-service quality should be regularly and periodically reviewed, and the resulted feedback should be highly considered.
3. As a result of the spread of Covid-19, high consideration should be gone toward enhancing and providing e-services by banks.
4. Banks should exert more marketing and public relations efforts to communicate their services to their customer, in addition to targeting a broader customer base.
5. More budgets should be allocated toward enhancing the banking technological infrastructure, including mobile applications, websites, and investing more in security systems to protect clients' privacy.
6. The development of capabilities and skills of banking staff, especially those who are dealing directly with customers. Hence, it is highly recommended to focus on communication skills and service delivery tactics.
7. The Palestinian Monetary Authority should exert more effort toward enhancing banks' operating environment and provide facilities that would help banks overcome obstacles.
8. The location of branches and ATMs must be studied carefully to satisfy as many customers as possible.

9. A partition between ATMs in the same place should exist in order to maintain privacy.
10. Continuous enhancements and improvements should be made to the mobile application of banks in order to enhance the level of service with a combination of a high level of security.

7.6 Future Studies:

1. The impact of e-service quality dimensions provided by banks on customer loyalty
2. The role of e-marketing in creating competitive advantage in terms of customer satisfaction and loyalty in banks
3. The impact of e-service quality dimension on customer satisfaction on the NGO sector
4. Utilization of e-service quality dimension to create citizens satisfaction at governmental and public institutions

References

- Abdulfattah, F. (2012). *The effect of electronic customer relationship on customer satisfaction a study on web banking in Saudi Arabia* (Unpublished Master Thesis). University of Huddersfield, United Kingdom
- Abu Awad, R. (2020). *Customers 'Acceptance of E-Banking Services in Hebron City* (Unpublished Master Thesis). University of Hebron, Palestine.
- Abu Mezar, D. (2019). *The Quality of Banking Services of The Palestinian Banks Operating in the City of Hebron: A comparative Study between Islamic Banks and Commercial Banks* (Unpublished Master Thesis). University of Hebron, Palestine.
- Agbor, J. (2011). *The Relationship between Customer Satisfaction and Service Quality: a study of three Service sectors in Umeå* (Unpublished Master thesis), Umeå University. Sweden.
- Agrawal, V., Tripathi, T., Seth, S. (2014). A Conceptual Framework on Review of E-Service Quality in Banking Industry. *International Journal of Social, Education, Economics and Management Engineering*, 8(12), 214-217.
- Akinci, S., et al. (2010). Reassessment of E-S-QUAL and E-RecS-Qual in a pure service setting. *Journal of Business Research* 63(3):232-240.
- Al Foqahaa, S. (2012). Factors Affecting Customers Satisfaction with Islamic Banking Services in Palestine. *Jordan journal of business administration*, 8(2).

- Al -Hawary, S. & Al Smeran, W. (2017). Impact of Electronic Service Quality on Customers Satisfaction of Islamic Banks in Jordan. *International Journal of Academic Research in Accounting, Finance, and management sciences*, 7(1), 170-188.
- Alawneh, A., Al-Refai, H., Batiha, Kh. (2013). Measuring user satisfaction from e-Government services: Lessons from Jordan. *Government Information Quarterly* 30(3), 277–288.
- Al-Bahi. S. (2016). *The impact of banking e-services quality on customer satisfaction “empirical study at Jordanian Islamic Bank at A’mman* (unpublished master thesis). Middle East University. A’mman
- Ali, M., Asmi, F., Rahman, Md.M., Malik, N. and Ahmad, M.S. (2017) Evaluation of E-Service Quality through Customer Satisfaction (a Case Study of FBR E-Taxation). *Open Journal of Social Sciences* , 5, 175-195.
- Al-Smeran, W. (2017). Impact of Electronic Service Quality on Customers Satisfaction of Islamic Banks in Jordan. *International Journal of Academic Research in Accounting, Finance, and Management Sciences*, 7(1), 170-188.
- Amin, M. (2016). Internet banking service quality and its implication on e-customer satisfaction and e-customer loyal. *International Journal of Bank Marketing*, 34(3), 347-367.
- Anh, P., Tuan, N., (2016). Impact of service quality on customer satisfaction of automated teller machine service: case study of a private commercial joint stock bank in Vietnam. *Business Theory and Practice*, 16(3), 280–289.

- Apondi, Ch. (2016). Service quality, customer satisfaction and loyalty in commercial banks in Kenya (Unpublished Master Thesis). University of Nairobi, Kenya.
- Ariño, L., Flavian, C., Guinalíu, M. (2008). The role of satisfaction and website usability in developing customer loyalty and positive word-of-mouth in the e-banking services. *International Journal of Bank Marketing* 26(6), 399-417.
- Bao, J. (2015). *The Impacts of E-service Quality on Customers' Repurchase Intention in Platform Online Retailing: An Empirical Investigation*. Paper presented at The Wuhan International Conference on e-Business.
- Baykal, B. (2016). The effect of e-service quality on customer perception. *International Journal of Management and Applied Science*, 2(1), 141-146.
- Beneke, J., Acton, A., Richardson, D., & White, F. (2011). E-service quality: An investigation of its key dimensions and the discriminatory power in the residential property sector. *Acta Commercii*, 11(1), 75-87.
- Blut, M., Chowdhry, N., Mittal, V., & Brock, Ch. (2015). E-Service Quality: A Meta-Analytic Review. *Journal of Retailing*, 91(4), 679-700.
- Boss, S., McGranahan, D. and Mehta, A. (2000). Will the banks control online banking.
- Carletti, E., Claessens, S., Fatás, A., Vives, X. (2020). *The Bank Business Model in the Post -Covid -19 World*. Centre for Economic Policy Research. UK.

- Centeno, C. (2003). Adoption of Internet Services in the Enlarged European Union: Lessons from the Internet Banking case. *European Commission Joint Research Centre*, Report EUR 20822 EN, June.
- Chai, B., Tan, P., and Goh, Th. (2015, August 11-15). *Banking Services that Influence the Bank Performance*. Paper presented at 6th International Research Symposium in Service Management, Malaysia.
- Cockrill, A., Goode, M., Beetles, A. (2009). The Critical Role of Perceived Risk and Trust in Determining Customer Satisfaction with Automated Banking Channels. *Services Marketing Quarterly* 30(2), 174-193.
- Collier, J., Bienstock, C., (2006). Measuring Service Quality in E-Retailing. *Journal of Service Research* 8(3), 260-275.
- Daniel, W. (2016). *Effects of service quality on customer retention among commercial banks in Kenya* (Unpublished Master Thesis). University of Nairobi, Kenya.
- El Talla, S., Al Shobaki, M., & Abu Naser, S. (2019). Electronic Banking Services from the Point of View of Bank Customers in Palestine. *International Journal of Academic Accounting, Finance & Management Research*, 3(10), 45-60
- El-Hinnawi, R. (2011). The impact of relationship marketing underpinnings on customer's loyalty Case study _ Bank of Palestine (Unpublished Master thesis), Islamic University of Gaza. Palestine.

Eshghi, A., Roy, S., & Ganguli, Sh. (2008). Service quality and customer satisfaction: an empirical investigation in Indian mobile telecommunications services. *Marketing Management Journal*, 18(2), 119-144.

Firdous, S. (2017). Impact of internet banking service quality on customer satisfaction. *Journal of Internet Banking and Commerce*, 22(1).

Gambo, M. (2016). Service quality and customer satisfaction among domestic air passengers in Nigeria. *International journal of business and management studies*, 8(2).

George, D. and Mallery P. (2006). SPSS for Windows Step by Step. A Simple Guide and Reference, page 231. Allyn and Bacon, Boston, MA, USA

Halvadia, N., Halvadia, Sh. (2018). Content Analysis for Internet Banking Portal Service Quality Dimensions. *International Journal of Research in Engineering, IT and Social Sciences*, 8(9), 217-226.

Hammoud, J., Bizri, R., Al Baba, I. (2018). The Impact of E-Banking Service Quality on Customer Satisfaction: Evidence from the Lebanese Banking Sector. *SAGE Open*.

Haq, I., & Awan, T. (2020). Impact of e-banking service quality on e-loyalty in pandemic times through interplay of e-satisfaction. *IMB Journal of Management*, 17(12), 39-55

Ilieska, K. (2013). Customer Satisfaction Index – as a Base for Strategic Marketing Management, *TEM Journal*, 2(4), 327-331.

International Labor Organization. (2018). *The occupied palestinian territory*. ILO

Jamal, A., & Naser, K. (2002). Customer satisfaction and retail banking: An assessment of some of the key antecedents of customer satisfaction in retail banking. *International Journal of Bank Marketing*, 20(4), 146-160.

Johnson, M. D., & Fornell, C. (1991). A framework for comparing customer satisfaction across individuals and product categories. *Journal of Economic Psychology*, 12(2), 267-286.

Kebkab, A. (2012). *Improving usability of banking websites - by implementing user-centered design* (Unpublished Master thesis), University of Borås.

Kenova, V. and Jonasson, P. (2006). "Quality Online Banking Services, Bachelor Thesis within Business Administration". Submitted to Jönköping International Business School Jönköping University, 3-4

Khadka, K. & Maharjan, S. (2017). *Customer satisfaction and customer loyalty* (Unpublished thesis). Centria university of applied sciences. Finland

Khalil, A. (2011). *Online Service Quality and Customer Satisfaction: A case study of Bank Islam Malaysia Berhad*. University Science Islam Malaysia. Malaysia

Khrewesh, A. (2011). *E-banking Adoption Model in Palestine* (Unpublished Master Thesis). Al Najah National University. Nablus: Palestine.

- Kraniasa, A., Bourlessab, M. (2013, June 27-29). *Investigating the relationship between service quality and loyalty in Greek banking sector*. Paper presented at International Conference on Applied Economics, Istanbul, Turkey
- Kumar, A., Dash, M. (2015). E-service quality dimensions' effect on customers' willingness to buy: structural equation modelling approach. *International Journal of Services and Operations Management*, 22(3), 287-302.
- Kumar, J., Gupta, A., Shyam, H. (2020). Impact of services quality in e-banking: evidence from Indian public banks. *Academy of Marketing Studies Journal*, 24(1).
- Lahlouh, R. & Zain Al Deen, R. (2016). *The impact of the quality of banking services on customer satisfaction in commercial banks in Nabuls*. Al Najah National University. Nablus: Palestine.
- Lee, M., Wu, Y. (2011). The effects of internal marketing, job satisfaction and service attitude on job performance among high-tech firm. *African Journal of Business Management* 5(32).
- Lewin, J. (2009). Business customers' satisfaction: What happens when supplier downsize? *Industrial Marketing Management*, 38, 283-299.
- Loeb, S., Dynarski, S., McFarland, D., Morris, P., Reardon, S., & Reber, S. (2017). Descriptive Analysis in Education: A Guide for Researchers. *NCEE*.
- M., Sarhan. (2016, November 6). News of Palestinian Economy. Aliqtisadi. <http://www.aliqtisadi.ps/>

- Mensah, A. (2010). *Customer satisfaction in the banking industry: a comparative study of Ghana and Spain* (Unpublished PhD thesis). Universitat de Girona.
- Mohsan, F., Nawaz, M., Khan, S., Shaukat, Z., & Aslam, M. (2011). Impact of Customer Satisfaction on Customer Loyalty and Intentions to Switch: Evidence from Banking Sector of Pakistan. *International Journal of Business and Social Science*, 2(16).
- Molapo, M. (2008). An assessment on internet banking service quality (Unpublished master thesis). University of Johannesburg. South Africa.
- Munawar Khan, M., Fasih, M. (2014). Impact of Service Quality on Customer Satisfaction and Customer Loyalty: Evidence from Banking Sector. *Pakistan Journal of Commerce and Social Sciences*, 8(2), 331-35
- Narteh, B., Odoom, R. (2015). Does Internal Marketing Influence Employee Loyalty? Evidence From the Ghanaian Banking Industry. *Services Marketing Quarterly* 36(2).
- Njoki, M. (2012). *Determinants of customer satisfaction and retention: a survey of the banking industry in Kenya* (Unpublished Master Thesis). Nelson Mandela Metropolitan University.
- Palestine Monetary Authority (PMA). <http://www.pma.ps/>
- Palestinian Central Bureau of Statistics. (2018). *Statistical Yearbook of Palestine*. Palestine.

Palestinian Monetary Authority. (2019). *Annual Report*. Palestine: Palestinian Monetary Authority.

Parasuraman, A., Berry, L. and Zeithaml, V. (1988), SERVQUAL: A multiple- Item Scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.

Parasuraman, A., Berry, L. and Zeithaml, V. (1994), Reassessment of expectations as a comparison standard in measuring SQ: implications for future research. *Journal of Marketing*, 58, 111-24.

Parasuraman, A., Zeithmal, V., & Malhotra, A. (2005). E-S-QUAL A Multiple-Item Scale for Assessing Electronic Service Quality. *Journal of Service Research*, 7(3), 213-233.

Phuong, N. (2017, March 12). *Factors affecting customer satisfaction and customer loyalty the case of Binh Duong ceramic product*. Paper presented at International Business Conference, Bangkok, Thailand.

Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., & Pahnla, S. (2004). Consumer acceptance of online banking: An extension of the technology acceptance model. *Internet Research*, 14(3), 224-235.

Palestinian Central Bureau of Statistics. (2021). Survey of the impact of the emerging corona virus crisis on private sector institutions at Palestine. [PCBS. Palestine.](#)

- Puriwat, W., Tripopsakul, S., (2018). The impact of corporate social responsibility on customer satisfaction and loyalty: A case study of the hotel industry in Thailand. *Asia-Pacific Social Science Review* 18(3), 137-145.
- Rostami, A., Khani, A., Soltani, Gh. (2016). The Impact of E-service Quality on the Improvement of the Level of Communication with Customers of Bank Melli Branches in South Tehran Affairs Office. *Procedia Economics and Finance*, 36, 448-455.
- Rowley, J. and Slack, F. (2006), Towards a taxonomy of kiosk-based self service technologies, Submitted.
- Sagib, G.K. and Zapan, B. (2014). Bangladeshi mobile banking service quality and customer satisfaction and loyalty. *Management & Marketing*, 9(2), 331-346.
- Sagib, K., Zapan, B. (2014). Bangladeshi mobile banking service quality and customer satisfaction and loyalty. *Management & Marketing*, 9(3), 331-346.
- Saha, P. and Zhao, Y. (2005). *Relationship between Online Service Quality and Customer Satisfaction: A Study in Internet Banking* (Unpublished Master Thesis). Luleå University of Technology, Sweden.
- Sahadev, S., Purani, K., (2008). Modelling the consequences of e-service quality. *Marketing Intelligence & Planning* 26(6), 605-620.

- Sakhaei, F., Afshari, A., Esmaili, E. (2013). *The Impact of Service Quality on Customer Satisfaction in Internet Banking. Journal of mathematics and computer science*, 9(2014), 33-40.
- Santos, J. (2003). E-service quality: A model of virtual service quality dimensions. *Managing Service Quality*, 13(3), 233-246.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). Research methods for business students (Fifth ed.). India: Pearson Education
- Seyoum, L. (2017). The impact of service quality on customer satisfaction: the case of Ethio telecom call center (Unpublished Master Thesis). Mary's university, Addis Ababa, Ethiopia.
- Shared, H. (2019). The relationship between e-service quality and E-customer satisfaction: An empirical study on Egyptian Banks. *International Journal of Business and Management*, 14(5).
- Sikdar, P., Makkad, M. (2015). Online banking adoption: A factor validation and satisfaction causation study in the context of Indian banking customers. *International Journal of Bank Marketing* 33(6), 785
- Sisalem, O. (2018). *The Effect of Emotional Intelligence on the Life Success of Professional Leaders in the Banking Sector in the Gaza Strip* (Unpublished Master thesis), Islamic University of Gaza. Palestine.

- Sivadas, E., & Baker-Prewitt, J. L. (2000). An examination of the relationship between service quality, customer satisfaction, and store loyalty. *International Journal of Retail & Distribution Management*, 28(2), 73-82.
- Srour, A. (2011). *Factors affecting the level of customer satisfaction of e-services provided by Bank of Palestine* (unpublished master thesis). Al Azhar University. Gaza
- Swaid, S.I. and Wigand, R.T. (2009). Measuring the quality of e-service: scale development and initial validation. *Journal of Electronic Commerce Research*, 10(1), 13-28.
- Thatcher, R. W. (2010). Validity and reliability of quantitative electroencephalography. *Journal of Neurotherapy*, 14(2), 122-152.
- Tih, S. and Ennis, S. (2004). Internet retailing: determinants of consumers' intentional repurchases of internet services. Proceedings of the 33rd EMAC Conference, Universidad De Murcia, Murcia, 18-21 May.
- Toor, A., et al. (2016). The Impact of E-Banking on Customer Satisfaction: Evidence from Banking Sector of Pakistan. *Journal of Business Administration Research* 5(2).
- Trocchia, P. J., & Janda, S. (2003). How do consumers evaluate Internet retail service quality. *The Journal of Services Marketing*, 17(3), 243-253.
- Wandaogou, A. & Jalulah, S. (2011). *Evaluation of customer satisfaction with internet banking service quality in the banking industry in Ghana: case study of*

Ghana commercial bank Ltd and Merchant bank of Ghana Ltd
(unpublished master thesis), Luleå university of technology. Sweden.

Washington, DC: U.S. Department of Education, Institute of Education Sciences,
National Center for Education Evaluation and Regional Assistance.

Wolfenbarger, M., & Gilly, M. C. (2003). ETailQ: Dimensionalizing, measuring and
predicting etail quality. *Journal of Retailing*, 79(3), 183-198.

Yacob, Y., Ali, J., Baptist, Ch., et al. (2015, August 11-15). *How Far Members' Satisfaction Mediated Members' Loyalty? Investigating Credit Cooperative in Sarawak Borneo*. Paper presented at 6th International Research Symposium in Service Management, Malaysia.

Zeithaml, V.A. Parasuraman, A. and Malhotra, A. (2000). A conceptual framework for
understanding e-service quality: Implications for future research and
managerial practice. *Journal of Service Research*, (7), 1-21.

Zeithmal, V., Parasuraman, A., & Malhotra, A. (2002). Service Quality Delivery
Through Web Sites: A Critical Review of Extant Knowledge. *Journal of the Academy of Marketing Science*, 30(4), 358-371.

Zhilin, Y., et al. (2004). Measuring customer perceived online service quality: Scale
development and managerial implications. *International Journal of Operations & Production Management* 24(11), 1149-1174.

Keno, A., & Meku, D. (2018). The Assessment of Customer Satisfaction in ATM Service at Commercial Bank of Ethiopia in Wolaita Sodo Branch. *European Journal of Business and Management*, 10(22).

Jha, B. K., Sureka, S., & Shitika³. (2014). Customer's Satisfaction For ATM Services In Bihar, India. *International Journal of Interdisciplinary and Multidisciplinary Studies (IJIMS)*, 1(4), 42-49

Sohail, K., & Nabaz, N. A. (2019). The effect of atm service quality on customer's satisfaction and loyalty: An empirical analysis. *Russian Journal of Agricultural and Socio-Economic Sciences*, 89(5), 227-235. <https://doi.org/10.18551/rjoas.2019-05.28>

Appendices

Appendix (A)



الجامعة العربية الأمريكية
THE ARAB AMERICAN UNIVERSITY

Survey about measuring the impact of electronic service quality on customer satisfaction: An applied study on banking services in Ramallah.

Greetings,

This questionnaire was designed to collect information about the subject of study as part of the requirements for obtaining a master's degree in quality management under the supervision of Dr. Samah Abu Asab. Please answer its paragraphs, thanking you for your cooperation, and emphasizing that the information that will be provided will only be used for scientific research purposes.

This assessment will take you (6-10) minutes to complete. We hope that you will kindly read the items and paragraphs of the questionnaire carefully and choose the appropriate answer to all the questions from your point of view, and put the degree you deem appropriate in front of each paragraph objectively and impartially. Thank you for your cooperation.

1. Do you have a bank account in one of the banks operating in Palestine? *
 - ☐ Yes
 - ☐ No

Personal information

2. Gender <ul style="list-style-type: none"> <input type="checkbox"/> Male <input type="checkbox"/> Female
3. Age <ul style="list-style-type: none"> <input type="checkbox"/> 18-30 years <input type="checkbox"/> 31 –40 years <input type="checkbox"/> 41 –50 years <input type="checkbox"/> 51 - 60 years <input type="checkbox"/> More than 60 years

<p>4. The province you live in / closest to your residence</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ramallah and Al-Bireh <input type="checkbox"/> Jerusalem <input type="checkbox"/> Hebron <input type="checkbox"/> Bethlehem <input type="checkbox"/> Jericho <input type="checkbox"/> sulfites <input type="checkbox"/> Nablus <input type="checkbox"/> Tubas <input type="checkbox"/> Qalqilya <input type="checkbox"/> Tulkarm <input type="checkbox"/> fetus <input type="checkbox"/> Gaza
<p>5. Educational Level</p> <ul style="list-style-type: none"> <input type="checkbox"/> High school or less <input type="checkbox"/> College <input type="checkbox"/> Bachelor <input type="checkbox"/> M.A. <input type="checkbox"/> PhD <input type="checkbox"/> Other:
<p>6. Job Nature</p> <ul style="list-style-type: none"> <input type="checkbox"/> Student <input type="checkbox"/> public sector employee <input type="checkbox"/> private sector employee <input type="checkbox"/> free work <input type="checkbox"/> retired <input type="checkbox"/> Unemployed <input type="checkbox"/> Other:
<p>7. What is your monthly income range? (ILS)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Less than 1950 ILS <input type="checkbox"/> 1950-3000 ILS <input type="checkbox"/> 3001-5000 ILS <input type="checkbox"/> more than 5000 ILS
<p>8. How many bank accounts do you have?</p> <ul style="list-style-type: none"> <input type="checkbox"/> One Only <input type="checkbox"/> Two <input type="checkbox"/> Three <input type="checkbox"/> More than three

<p>9. Choose the bank whose electronic services are used the most? (In case you have more than one account in different banks) (Select all that applies)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Bank of Palestine <input type="checkbox"/> Arab Islamic Bank <input type="checkbox"/> Palestine Islamic Bank <input type="checkbox"/> Palestine Investment Bank <input type="checkbox"/> Al Quds Bank <input type="checkbox"/> The National Bank TNB <input type="checkbox"/> Safa Bank <input type="checkbox"/> Arab Bank <input type="checkbox"/> Cairo Amman Bank <input type="checkbox"/> Bank of Jordan <input type="checkbox"/> Housing Bank <input type="checkbox"/> Egyptian Arab Land Bank <input type="checkbox"/> Jordan Ahli Bank
<p>10. What electronic banking services do you use? (Choose all that apply)</p> <ul style="list-style-type: none"> <input type="checkbox"/> (ATM) <input type="checkbox"/> (Online Banking) <input type="checkbox"/> (Mobile Banking) <input type="checkbox"/> Other
<p>11. How often do you use ATMs?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly <input type="checkbox"/> Yearly <input type="checkbox"/> Never
<p>12. How frequent do you use mobile banking?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly <input type="checkbox"/> Yearly <input type="checkbox"/> Never
<p>13. How frequent do you use internet banking?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input type="checkbox"/> Monthly <input type="checkbox"/> Yearly <input type="checkbox"/> Never
<p>14. How many years have you used the electronic services of the bank you deal with more than others? (In case you have more than one account in different banks)</p> <ul style="list-style-type: none"> <input type="checkbox"/> less than one year <input type="checkbox"/> 1 year-5 years <input type="checkbox"/> 6 years-10 years <input type="checkbox"/> More than 10 years

ATM service

15. Do you use the ATM service in the Ramallah area? *

- ☐ Yes
- ☐ No

Automated teller machine (ATM)

(The following questions are a five-point Likert scale where: (1) Strongly disagree (2) Disagree (3) Neutral (4) Agree (5) I totally agree)

16. Cash is always available in ATM	<div style="text-align: center;">1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> totally agree</div>
17. Notes(currency) are available in ATM machines on good quality	<div style="text-align: center;">1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> totally agree</div>
18. ATMs can be accessed anywhere in Ramallah within a searchable distance	<div style="text-align: center;">1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> totally agree</div>
19. ATM parts e.g.,(touch screen , key pad and ATM card) are working smoothly	<div style="text-align: center;">1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> totally agree</div>
20. ATM is always available to use	<div style="text-align: center;">1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
21. The money notes from my ATM are original. (no counterfeit money)	<div style="text-align: center;">1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
22. I am informed after every transaction done on ATM. e.g., by SMS	<div style="text-align: center;">1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
23. ATM support person is available to set right the problems	<div style="text-align: center;">1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
24. ATMs that are broken-down are promptly fixed	<div style="text-align: center;">1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>

25. ATM cards (debit cards) are speedily replaced	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
26. ATM provides fast services	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
27. ATM provides receipt to confirm transactions	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
28. ATM fulfills the majority of my financial needs	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
29. Location of ATM machine are safe to withdraw money	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
30. Only one person is allowed to enter in the ATM cabin	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
31. In case of two ATMs in same place, there is a partition between them to maintain privacy	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>

Mobile banking service

32. Do you use a mobile application (Mobile Banking)?

- ☐ Yes
- ☐ No

Mobile Banking Application

(The following questions are a five-point Likert scale where: (1) Strongly disagree (2) Disagree (3) Neutral (4) Agree (5) I totally agree)

33. Mobile banking is simple to use	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
34. Mobile banking makes my banking information easy to access	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
35. Mobile banking takes short time to respond to my banking problems	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
36. I know exactly when my transaction will be performed	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
37. Mobile banking services perform reliably	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
38. The operation of mobile banking is dependable	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
39. Mobile banking provides prompt responses if my transaction is not processed	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
40. If there is a mistake in a transaction, mobile banking app corrects it right effectively	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
41. Mobile banking provides me with precise banking services	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
42. Mobile banking provides a confirmation of the service ordered	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
43. Mobile banking fulfills the majority of my financial needs	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>

44. Mobile banking promptly informs me about important situations (payments, etc.)	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
45. It's safe to release my banking information to mobile banking services	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
46. Mobile banking is secure for my credit card information	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
47. Online transactions that are carried out on mobile are secure	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>

Internet banking service

48. Do you use the online banking service? *

Online Banking

(The following questions are a five-point Likert scale where: (1) Strongly disagree (2) Disagree (3) Neutral (4) Agree (5) I totally agree)

49. The speed of online bank's site processes e.g., (log in, logout, transactions).	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
50. The online bank's site is simple to use	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
51. Information at this site is well organized	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
52. I can rely on the online bank's site functioning properly	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
53. The online bank's site is up and running all the time	<div>1 2 3 4 5</div>

	Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree
54. Information content on the online bank's site are easy to understand	1 2 3 4 5 Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree
55. The online bank's site promptly responds to my requests which I made by e-mail or other channels	1 2 3 4 5 Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree
56. The online bank's site takes care of problems promptly	1 2 3 4 5 Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree
57. The online bank's site informs me of important information promptly for example, (incoming payments due, low account balance, important login activity)	1 2 3 4 5 Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree
58. Internet banking has live online/phone customer service representatives to support the service	1 2 3 4 5 Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree
59. The online bank's site provides a confirmation of the service ordered	1 2 3 4 5 Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree
60. The online bank's site delivers services when promised	1 2 3 4 5 Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree
61. The online bank's site delivers the most relevant results as specified(Example when doing a search on a service) ١	1 2 3 4 5 Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree
62. The online bank's site is secure for my credit card information	1 2 3 4 5 Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree
63. The online bank's site allows me only to access my account, no one else can access it	1 2 3 4 5 Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree

64. The online bank's site provides high protection for my banking transaction	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
65. Online banking's site protects my info from sharing with others	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>

Overall satisfaction with the service

(The following questions are a five-point Likert scale where: (1) Strongly disagree (2) Disagree (3) Neutral (4) Agree (5) I totally agree)

66. I am satisfied with the transaction processing via e-banking services	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
67. My satisfaction with the e-banking services is high	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
68. My bank's e-services provide me with all the services that I need	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
69. I think I made the correct decision to use the e-banking services	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
70. Overall, e-banking services is better than my expectations	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>
71. I like to advice family, friends and relatives to use e-banking services	<div>1 2 3 4 5</div> <div>Strongly disagree <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> Totally agree</div>

Appendix (B)



الجامعة العربية الأمريكية
THE ARAB AMERICAN UNIVERSITY

استمارة بعنوان: "قياس تأثير جودة الخدمة الالكترونية على رضا العملاء: دراسة تطبيقية على الخدمات المصرفية في رام الله"

تحية طيبة وبعد،

صممت هذه الاستبانة لجمع المعلومات حول موضوع الدراسة كجزء من متطلبات الحصول على درجة الماجستير في تخصص إدارة الجودة تحت إشراف الدكتور سماح أبو عصب. الرجاء الإجابة عن فقراتها شاكرين لكم حسن تعاونكم، ومؤكدين أن المعلومات التي ستقدم لا تستخدم إلا لأغراض البحث العلمي فقط.

هذا التقييم سوف يستغرق منك (6-10) دقائق لإتمامه، نأمل من حضرتكم التفضل بقراءة بنود وفقرات الاستبانة بدقة واختيار الإجابة المناسبة لكافة الأسئلة من وجهة نظركم، ووضع الدرجة التي تراها مناسبة أمام كل فقرة بموضوعية وحيادية، وشكرا لحسن تعاونكم.

1. هل لديك حساب بنكي في أحد البنوك العاملة في فلسطين؟

☐ نعم

☐ لا

معلومات شخصية

2. الجنس	<input type="checkbox"/> ذكر	<input type="checkbox"/> أنثى
3. العمر	<input type="checkbox"/> 18-30 سنة	<input type="checkbox"/> 31-40 سنة
	<input type="checkbox"/> 41-50 سنة	<input type="checkbox"/> 51 - 60 سنة
	<input type="checkbox"/> أكثر من 60 سنة	
4. المقاطعة التي تعيش فيها / الأقرب إلى مكان إقامتك	<input type="checkbox"/> رام الله والبيرة	<input type="checkbox"/> القدس
	<input type="checkbox"/> الخليل	<input type="checkbox"/> بيت لحم
	<input type="checkbox"/> أريحا	<input type="checkbox"/> سلفيت
	<input type="checkbox"/> نابلس	<input type="checkbox"/> طوباس
	<input type="checkbox"/> قلقيلية	

<input type="checkbox"/> طوكرم <input type="checkbox"/> الجنين <input type="checkbox"/> غزة
5. المؤهل الدراسي <input type="checkbox"/> الثانوية العامة أو أقل <input type="checkbox"/> كلية <input type="checkbox"/> بكالوريوس <input type="checkbox"/> ماجستير <input type="checkbox"/> دكتوراه <input type="checkbox"/> آخر
6. الوظيفة <input type="checkbox"/> طالب <input type="checkbox"/> موظف قطاع عام <input type="checkbox"/> موظف قطاع خاص <input type="checkbox"/> عمل حر <input type="checkbox"/> متقاعد <input type="checkbox"/> عاطل عن العمل <input type="checkbox"/> آخر
7. الدخل الشهري (شيكل) <input type="checkbox"/> أقل من 1950 شيكل <input type="checkbox"/> 1950 - 3000 شيكل <input type="checkbox"/> 3001 إلى 5000 شيكل <input type="checkbox"/> أكثر من 5000 شيكل
8. كم عدد الحسابات المصرفية لديك؟ <input type="checkbox"/> واحد فقط <input type="checkbox"/> اثنين <input type="checkbox"/> ثلاثة <input type="checkbox"/> أكثر من ثلاثة
9. اختر البنك التي تستخدم خدماته الالكترونية أكثر من غيره؟ (في حال كان لديك أكثر من حساب في بنوك مختلفة) <input type="checkbox"/> بنك فلسطين <input type="checkbox"/> البنك الاسلامي العربي <input type="checkbox"/> البنك الإسلامي الفلسطيني <input type="checkbox"/> بنك الاستثمار الفلسطيني <input type="checkbox"/> بنك القدس <input type="checkbox"/> البنك الوطني TNB <input type="checkbox"/> بنك الصفا <input type="checkbox"/> البنك العربي <input type="checkbox"/> بنك القاهرة عمان <input type="checkbox"/> بنك الاردن <input type="checkbox"/> بنك الإسكان <input type="checkbox"/> البنك العقاري المصري العربي <input type="checkbox"/> البنك الأهلي الأردني

<p>10. ما هي الخدمات المصرفية الإلكترونية التي تستخدمها؟ (اختر/ي كل ما يمكن تطبيقه)</p> <p><input type="checkbox"/> الصراف الآلي (ATM)</p> <p><input type="checkbox"/> الانترنت البنكي (Online Banking)</p> <p><input type="checkbox"/> تطبيق الهاتف المحمول (Mobile Banking)</p> <p><input type="checkbox"/> آخر</p>
<p>11. ما مدى تكرار استخدامك لأجهزة الصراف الآلي (ATM)؟</p> <p><input type="checkbox"/> يوميا</p> <p><input type="checkbox"/> اسبوعيا</p> <p><input type="checkbox"/> شهريا</p> <p><input type="checkbox"/> سنويا</p> <p><input type="checkbox"/> ابدا</p>
<p>12. ما مدى تكرار استخدامك للخدمات المصرفية عبر الهاتف المحمول (Mobile Banking) ؟</p> <p><input type="checkbox"/> يوميا</p> <p><input type="checkbox"/> اسبوعيا</p> <p><input type="checkbox"/> شهريا</p> <p><input type="checkbox"/> سنويا</p> <p><input type="checkbox"/> ابدا</p>
<p>13. ما مدى تكرار استخدامك للخدمات المصرفية للإنترنت البنكي (Online Banking)؟</p> <p><input type="checkbox"/> يوميا</p> <p><input type="checkbox"/> اسبوعيا</p> <p><input type="checkbox"/> شهريا</p> <p><input type="checkbox"/> سنويا</p> <p><input type="checkbox"/> ابدا</p>
<p>14. عدد سنوات استخدام الخدمات الإلكترونية للبنك الذي تتعامل معه أكثر من غيره؟ (في حال كان لديك أكثر من حساب في بنوك مختلفة)</p> <p><input type="checkbox"/> اقل من سنة واحدة</p> <p><input type="checkbox"/> 1 سنة - 5 سنوات</p> <p><input type="checkbox"/> 6 سنوات - 10 سنوات</p> <p><input type="checkbox"/> أكثر من 10 سنوات</p>

خدمة الصراف الآلي

15. هل تستخدمون خدمة الصراف الآلي في منطقة رام الله؟ *

- ☐ نعم
- ☐ لا

الصراف الآلي (ATM)

(الأسئلة التالية عبارة عن مقياس ليكرت من خمس نقاط حيث: (1) لا أوافق بشدة (2) غير موافق (3) محايد (4) أوافق (5) أوافق تماماً)

1 2 3 4 5 أوافق تماماً لا أوافق بشدة	16. النقد متاح دائماً في أجهزة الصراف الآلي
1 2 3 4 5 أوافق تماماً لا أوافق بشدة	17. الأوراق النقدية (العملة) متوفرة في أجهزة الصراف الآلي بجودة جيدة
1 2 3 4 5 أوافق تماماً لا أوافق بشدة	18. يمكن الوصول إلى أجهزة الصراف الآلي في أي مكان في رام الله ضمن مسافة يمكن البحث فيها
1 2 3 4 5 أوافق تماماً لا أوافق بشدة	19. تعمل أجزاء أجهزة الصراف الآلي على سبيل المثال (شاشة اللمس ولوحة المفاتيح وبطاقة الصراف الآلي) بسلاسة
1 2 3 4 5 أوافق تماماً لا أوافق بشدة	20. أجهزة الصراف الآلي متاحة دائماً للاستخدام
1 2 3 4 5 أوافق تماماً لا أوافق بشدة	21. الأوراق النقدية من جهاز الصراف الآلي الخاصة بي أصلية. (لا نقود مزيفة)
1 2 3 4 5 أوافق تماماً لا أوافق بشدة	22. يتم إبلاغي بعد كل معاملة تتم عبر أجهزة الصراف الآلي. على سبيل المثال ، عن طريق الرسائل القصيرة
1 2 3 4 5 أوافق تماماً لا أوافق بشدة	23. يتوفر شخص دعم أجهزة الصراف الآلي لتحديد المشاكل بشكل صحيح
1 2 3 4 5 أوافق تماماً لا أوافق بشدة	24. يتم إصلاح أجهزة الصراف الآلي المعطلة على الفور
1 2 3 4 5 أوافق تماماً لا أوافق بشدة	25. يتم استبدال بطاقات الصراف الآلي بسرعة
1 2 3 4 5 أوافق تماماً لا أوافق بشدة	26. توفر أجهزة الصراف الآلي خدمات سريعة
1 2 3 4 5 أوافق تماماً لا أوافق بشدة	27. توفر ماكينة الصراف الآلي إيصالاً لتأكيد المعاملات

1 2 3 4 5 أوافق تماما لاوافق بشدة	28. تلبية أجهزة الصراف الآلي معظم احتياجاتي المالية
1 2 3 4 5 أوافق تماما لاوافق بشدة	29. موقع جهاز الصراف الآلي آمن لسحب الأموال
1 2 3 4 5 أوافق تماما لاوافق بشدة	30. يُسمح لشخص واحد فقط بالدخول إلى كابينة الصراف الآلي
1 2 3 4 5 أوافق تماما لاوافق بشدة	31. في حالة وجود جهاز صراف آلي في نفس المكان، يوجد فاصل بينهما للحفاظ على الخصوصية

الخدمة المصرفية عبر الهاتف المحمول
32. هل تستخدم تطبيق الهاتف المحمول (Mobile Banking)؟

- نعم ☐
لا ☐

تطبيق الهاتف المحمول (Mobile Banking)

الاسئلة التالية هي مقياس ليكرت الخماسي حيث: (1) لا أوافق بشدة، (2) لا أوافق، (3) محايد، (4) أوافق، (5) أوافق بشدة.

1 2 3 4 5 أوافق تماما لاوافق بشدة	33. الخدمات المصرفية عبر الهاتف المحمول سهلة الاستخدام
1 2 3 4 5 أوافق تماما لاوافق بشدة	34. الخدمات المصرفية عبر الهاتف المحمول تجعل معلوماتي المصرفية سهلة الوصول إليها
1 2 3 4 5 أوافق تماما لاوافق بشدة	35. تستغرق الخدمات المصرفية عبر الهاتف المحمول وقتًا قصيرًا للرد على مشاكلي المصرفية
1 2 3 4 5 أوافق تماما لاوافق بشدة	36. أعرف بالضبط متى سيتم تنفيذ معاملتي
1 2 3 4 5 أوافق تماما لاوافق بشدة	37. الخدمات المصرفية عبر الهاتف المحمول تؤدي العمل بشكل موثوق
1 2 3 4 5 أوافق تماما لاوافق بشدة	38. يمكن الاعتماد على تشغيل الخدمات المصرفية عبر الهاتف المحمول

<p>1 2 3 4 5</p> <p>أوافق تماماً لاوافق بشدة</p>	39. توفر الخدمات المصرفية عبر الهاتف المحمول استجابات سريعة إذا لم تتم معالجة معاملتي
<p>1 2 3 4 5</p> <p>أوافق تماماً لاوافق بشدة</p>	40. إذا كان هناك خطأ في معاملة ما، فإن تطبيق الخدمات المصرفية عبر الهاتف المحمول يصححه بشكل صحيح
<p>1 2 3 4 5</p> <p>أوافق تماماً لاوافق بشدة</p>	41. تزودني الخدمات المصرفية عبر الهاتف المحمول بخدمات مصرفية دقيقة
<p>1 2 3 4 5</p> <p>أوافق تماماً لاوافق بشدة</p>	42. توفر الخدمات المصرفية عبر الهاتف المحمول تأكيداً للخدمة المطلوبة
<p>1 2 3 4 5</p> <p>أوافق تماماً لاوافق بشدة</p>	43. تلبي الخدمات المصرفية عبر الهاتف المحمول غالبية احتياجاتي المالية
<p>1 2 3 4 5</p> <p>أوافق تماماً لاوافق بشدة</p>	44. تُعلمني الخدمات المصرفية عبر الهاتف المحمول على الفور بالمواقف المهمة (المدفوعات، وما إلى ذلك)
<p>1 2 3 4 5</p> <p>أوافق تماماً لاوافق بشدة</p>	45. من الأمن الإفصاح عن معلوماتي المصرفية إلى تطبيق الخدمات المصرفية عبر الهاتف المحمول
<p>1 2 3 4 5</p> <p>أوافق تماماً لاوافق بشدة</p>	46. الخدمات المصرفية عبر الهاتف المحمول آمنة لمعلومات بطاقتي الائتمانية
<p>1 2 3 4 5</p> <p>أوافق تماماً لاوافق بشدة</p>	47. المعاملات عبر الإنترنت التي يتم إجراؤها على الهاتف المحمول آمنة

خدمة الانترنت البنكي

48. هل تستخدم خدمة الانترنت البنكي (Online Banking)؟

الانترنت البنكي (Online Banking)

الاسئلة التالية هي مقياس ليكرت الخماسي حيث: (1) لا اوافق بشدة، (2) لا اوافق، (3) محايد، (4) اوافق، (5) اوافق بشدة.

1 2 3 4 5 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> أوافق تماما لا اوافق بشدة	49. سرعة عمليات موقع البنك عبر الإنترنت، على سبيل المثال، (تسجيل الدخول، تسجيل الخروج، المعاملات)
1 2 3 4 5 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> أوافق تماما لا اوافق بشدة	50. صفحة الانترنت البنكي سهلة الاستخدام
1 2 3 4 5 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> أوافق تماما لا اوافق بشدة	51. المعلومات في الانترنت البنكي منظمة بشكل جيد
1 2 3 4 5 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> أوافق تماما لا اوافق بشدة	52. يمكنني الاعتماد على الانترنت البنكي بالعمل بشكل صحيح
1 2 3 4 5 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> أوافق تماما لا اوافق بشدة	53. الانترنت البنكي يعمل طوال الوقت
1 2 3 4 5 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> أوافق تماما لا اوافق بشدة	54. من السهل فهم محتوى المعلومات في الانترنت البنكي
1 2 3 4 5 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> أوافق تماما لا اوافق بشدة	55. يستجيب الانترنت البنكي على الفور لطلباتي التي أرسلتها عبر البريد الإلكتروني أو أي قناة أخرى
1 2 3 4 5 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> أوافق تماما لا اوافق بشدة	56. يعتني الانترنت البنكي بالمشكلات على الفور
1 2 3 4 5 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> أوافق تماما لا اوافق بشدة	57. الانترنت البنكي يبلغني بمعلومات مهمة على الفور على سبيل المثال، (المدفوعات القادمة المستحقة، رصيد حساب منخفض، نشاط هام متعلق بتسجيل الدخول)
1 2 3 4 5 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> أوافق تماما لا اوافق بشدة	58. يحتوي الانترنت البنكي على ممثلين مباشرين لخدمة العملاء عبر الإنترنت/ الهاتف لدعم الخدمة
1 2 3 4 5 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> أوافق تماما لا اوافق بشدة	59. يوفر الانترنت البنكي تأكيدًا للخدمة المطلوبة
1 2 3 4 5 <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> أوافق تماما لا اوافق بشدة	60. يقدم الانترنت البنكي الخدمات عند وعده بذلك

أوافق تماما لاوافق بشدة	1 2 3 4 5	61. يقدم الانترنت البنكي النتائج الأكثر صلة كما هو محدد (مثال عند إجراء بحث في إحدى الخدمات)
أوافق تماما لاوافق بشدة	1 2 3 4 5	62. الانترنت البنكي آمن لمعلومات بطاقتي الائتمانية
أوافق تماما لاوافق بشدة	1 2 3 4 5	63. يسمح لي الانترنت البنكي لي فقط بالوصول إلى حسابي، ولا يمكن لأي شخص آخر الوصول إليه
أوافق تماما لاوافق بشدة	1 2 3 4 5	64. يوفر الانترنت البنكي حماية عالية لمعاملاتي المصرفية
أوافق تماما لاوافق بشدة	1 2 3 4 5	65. يحمي الانترنت البنكي معلوماتي من مشاركتها مع الآخرين

الرضا العام عن الخدمة

ويشمل هذا القسم الرضا بشكل عام عن الخدمات التي تستخدمها : الموبايل البنكي و/أو الانترنت البنكي و/أو الصراف الآلي.
الاسئلة التالية هي مقياس ليكرت الخماسي حيث: (1) لأوافق بشدة، (2) لا أوافق، (3) محايد، (4) أوافق، (5) أوافق بشدة.

أوافق تماما لاوافق بشدة	1 2 3 4 5	66. أنا راضٍ عن معالجة المعاملات عبر الخدمات المصرفية الإلكترونية
أوافق تماما لاوافق بشدة	1 2 3 4 5	67. رضائي عن الخدمات المصرفية الإلكترونية مرتفع
أوافق تماما لاوافق بشدة	1 2 3 4 5	68. تقدم لي الخدمات الالكترونية التي يقدمها البنك الذي أتعامل معه كل الخدمات التي أحتاجها
أوافق تماما لاوافق بشدة	1 2 3 4 5	69. أعتقد أنني اتخذت القرار الصحيح لاستخدام الخدمات المصرفية الإلكترونية
أوافق تماما لاوافق بشدة	1 2 3 4 5	70. بشكل عام، الخدمات المصرفية الإلكترونية أفضل من توقعاتي

<div style="display: flex; justify-content: space-around; width: 100%;"> 12345 </div> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="display: flex; gap: 10px;"> <input type="radio"/><input type="radio"/><input type="radio"/><input type="radio"/><input type="radio"/> </div> <div style="margin-left: 10px;"> أوافق تماماً لاأوافق بشدة </div> </div>	71. أحب أن أنصح العائلة والأصدقاء والأقارب باستخدام الخدمات المصرفية الإلكترونية
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Appendix (C)

The First Questionnaire: Most Used E-Services This Questionnaire Was Created In Order To Find Out The Most Used Electronic Services

1. What is your position?	<input type="radio"/> CEO <input type="radio"/> CIO <input type="radio"/> CMO <input type="radio"/> Other
2. How many branches and offices your bank have in Ramallah only?	<input type="radio"/> 1-5 <input type="radio"/> More than 5
3. What kind of e-services your bank is providing? (select all e-services that are provided by your bank)	<input type="radio"/> Online banking <input type="radio"/> Mobile banking <input type="radio"/> ATM <input type="radio"/> SMS <input type="radio"/> USSD service <input type="radio"/> IVR (Interactive Voice Response) <input type="radio"/> Automated Payment Services <input type="radio"/> Cardless Service <input type="radio"/> Digital Contact Center <input type="radio"/> Cash Deposits <input type="radio"/> Advance Reservation <input type="radio"/> Immediate Bill Payment <input type="radio"/> ITM (Interactive Teller Machine) <input type="radio"/> Call Center

<ul style="list-style-type: none"> ○ Customer Biometric Recognition ○ Push Notification ○ Apple Pay ○ Other
<p>4. What is the most used e-service by your customers?</p> <ul style="list-style-type: none"> ○ Online banking ○ Mobile banking ○ ATM ○ SMS ○ USSD service ○ IVR (Interactive Voice Response) ○ Automated Payment Services ○ Cardless Service ○ Digital Contact Center ○ Cash Deposits ○ Advance Reservation ○ Immediate Bill Payment ○ ITM (Interactive Teller Machine) ○ Call Center ○ Customer Biometric Recognition ○ Push Notification ○ Apple Pay ○ Other
<p>5. What is the second most used e-service by your customers?</p> <ul style="list-style-type: none"> ○ Online banking ○ Mobile banking ○ ATM ○ SMS ○ USSD service ○ IVR (Interactive Voice Response) ○ Automated Payment Services ○ Cardless Service

- ☐ Digital Contact Center
- ☐ Cash Deposits
- ☐ Advance Reservation
- ☐ Immediate Bill Payment
- ☐ ITM (Interactive Teller Machine)
- ☐ Call Center
- ☐ Customer Biometric Recognition
- ☐ Push Notification
- ☐ Apple Pay
- ☐ Other

6. What is the third most used e-service by your customers?

- ☐ Online banking
- ☐ Mobile banking
- ☐ ATM
- ☐ SMS
- ☐ USSD service
- ☐ IVR (Interactive Voice Response)
- ☐ Automated Payment Services
- ☐ Cardless Service
- ☐ Digital Contact Center
- ☐ Cash Deposits
- ☐ Advance Reservation
- ☐ Immediate Bill Payment
- ☐ ITM (Interactive Teller Machine)
- ☐ Call Center
- ☐ Customer Biometric Recognition
- ☐ Push Notification
- ☐ Apple Pay
- ☐ Other

7. What is the percentage of usage of the most used e-service at your bank?

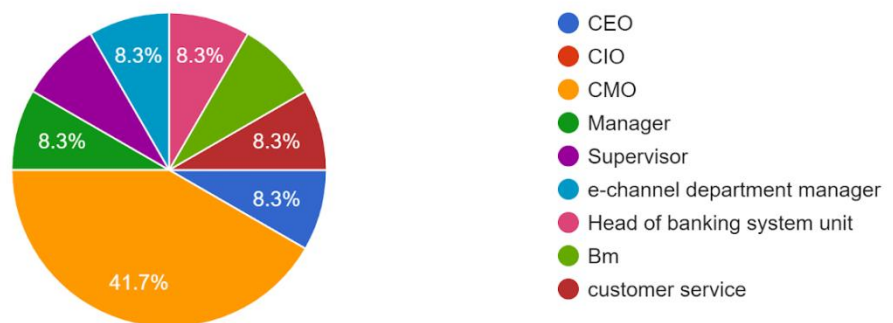
- ☐ less than 10%
- ☐ 10-30%
- ☐ 31-50%
- ☐ More than 50%
- ☐ I do not have data
- ☐ Other

Appendix (D)

First Questionnaire Results

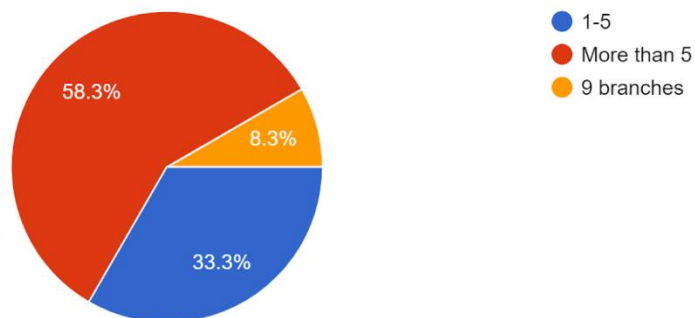
1. What is your position?

12 responses



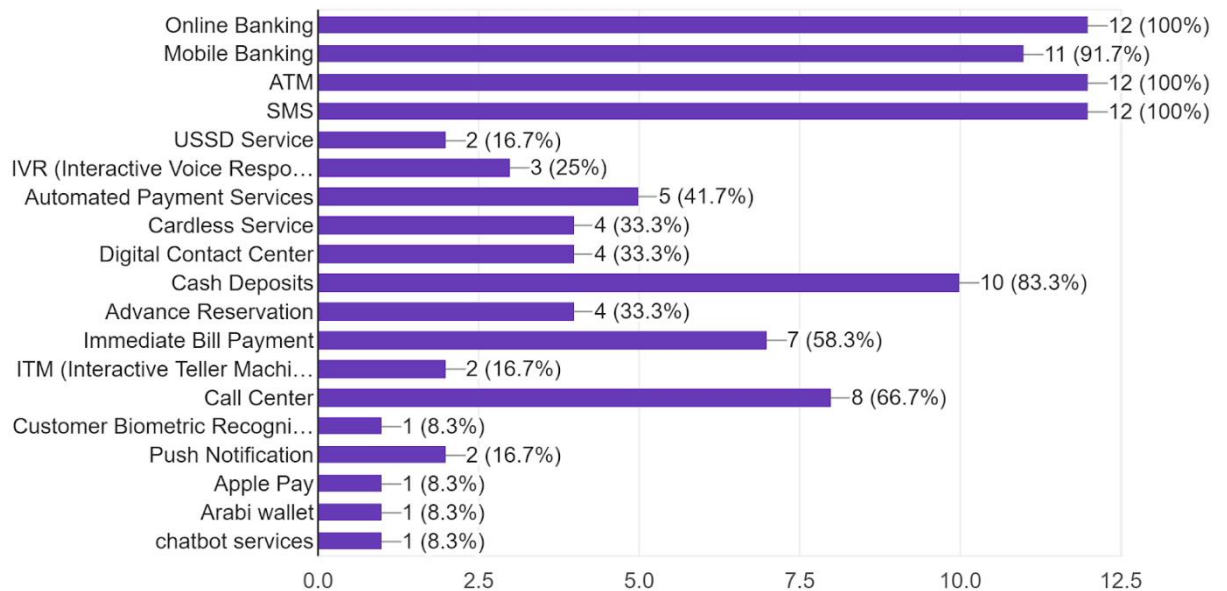
2. How many branches and offices the bank have in Ramallah only?

12 responses



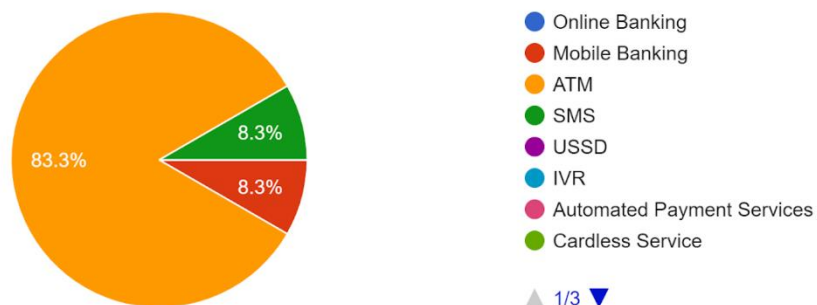
3. What kind of e-services your bank is providing?(select all e-services that are provided by your bank)

12 responses



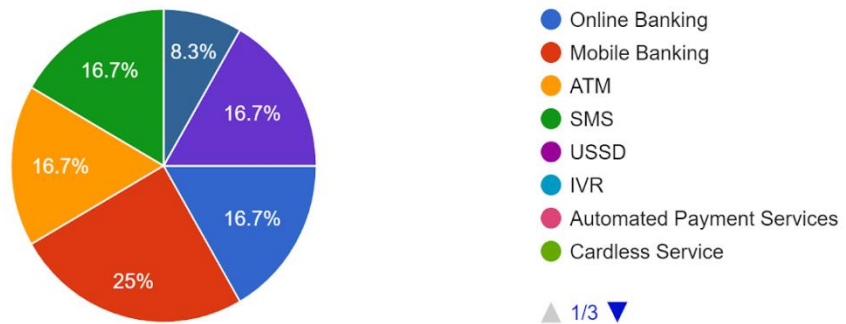
4. What is the most used e-service by your customers?

12 responses



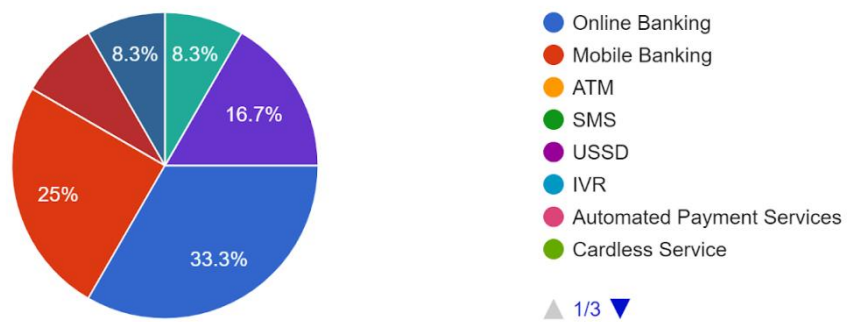
5. What is the second most used e-service by your customers?

12 responses



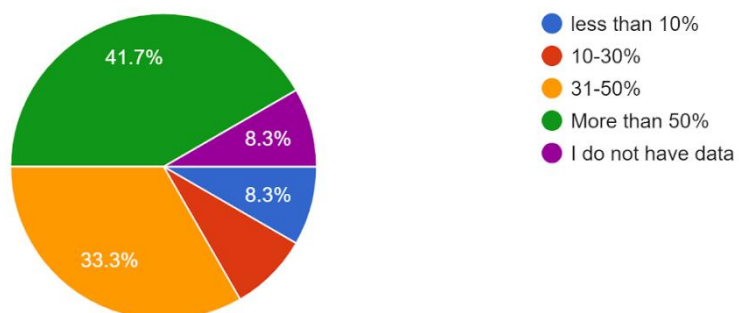
6. What is the third most used e-service by your customers?

12 responses



7. what is the percentage of usage of the most used e-service at your bank?

12 responses



Appendix (E)

Table E: Experts and arbitrators who reviewed the main.

No.	Position	Name
1	Associate Professor at Birzeit University	Dr. Samah Abu Assab
2	Assistant Professor at Birzeit University	Dr. Ziad Zaghrou

الملخص

تعمل منشآت تقديم الخدمات في الوقت الحاضر، خاصة البنوك، في بيئة شديدة التنافسية تتغير وتزداد فيها احتياجات العملاء بشكل مستمر ومتسارع، وبالتالي؛ يتعين على هذه المنشآت بذل الكثير من الجهود لتلبية احتياجات وتوقعات عملائها، لذلك؛ هدفت هذه الدراسة إلى معرفة تأثير أبعاد جودة الخدمة الإلكترونية على رضا العملاء في البنوك بمدينة رام الله.

تم بناء نموذج الدراسة بالاستناد إلى النماذج المعتمدة لقياس جودة الخدمة الإلكترونية، ولتحقيق هدف الدراسة تم استخدام المنهج الوصفي التحليلي، واستُخدم الاستبيان كأداة لجمع البيانات من عينة الدراسة التي بلغ عددها (411) عميل.

أظهرت نتائج الدراسة أن العملاء يتجهون إلى استخدام الخدمات الإلكترونية المصرفية على نطاق أوسع، وأنهم راضون للغاية عن جودة الخدمات الإلكترونية المقدمة في البنوك، بالإضافة إلى ذلك؛ تم التوصل إلى أن جميع أبعاد جودة الخدمة الإلكترونية تؤثر على مستوى رضا العملاء، بينما تساهم بعض عوامل جودة الخدمة أكثر من العوامل الأخرى.

لذلك، أوصت الباحثة البنوك بضرورة العمل على قياس كل من جودة خدماتها الإلكترونية ومستوى رضا العملاء بشكل دوري ومستمر، والعمل الجاد للحفاظ على كلا المستويين وتعزيزهما من أجل الحفاظ على مكانتها السوقية واستمرار قدرتها على المنافسة، وضرورة بذل المزيد من الجهود لتطوير قدرات ومهارات العاملين في البنوك، خاصة أولئك الذين يتعاملون بشكل مباشر مع العملاء، بالإضافة إلى ضرورة تخصيص ميزانيات أكبر للاستثمار في تطوير البيئة التكنولوجية للبنوك وتطبيقات الهواتف المحمولة.