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The Role of Quality in Bit Stream Access Internet Service Providers on Customer's Loyalty in Palestine

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Dedication

I dedicate this work to my wife and parents for their consistent support and prayers.

Acknowledgement

First and foremost, I express my gratitude to Allah for affording me the opportunity to continue my education and complete my thesis on a topic which is of importance to my country and people.

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الإقرار

أنا الموقع أدناه مقدم الرسالة التي تحمل العنوان

The Role of Quality in Bit Stream Access Internet Service Providers on Customer's Loyalty in Palestine

أقر بأن ما شملت عليه الرسالة هو نتاج جهدي الخاص، باستثناء ما تمت الإشارة إليه حيثما ورد، وأن هذه الرسالة ككل أو أي جزء منها لم يقدم من قبل لنيل أي درجة أو لقب علمي أو بحثي لدى أي مؤسسة علمية أو بحثية

<u>Declaration</u>

This work, which is provided in this thesis, is the work of the researcher, unless where referenced, and has not been submitted elsewhere for other degrees or qualification.

Student's Name: **اسم الطالب:**

Signature: **التوقيع:**

Date: **التاريخ:**

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Abbreviations

Abbreviation	Definition
3G	Third Generation
ADSL	Asymmetric Digital Subscriber Line
ANOVA	Analysis Of Variance
BSA	Bit Stream Access
CRM	Customer Relationship Management Software
DSL	Digital Subscriber Line
EDGE	Enhanced Data Rates for GSM Evolution
GSM	Global System for Mobile Communications
ICT	Information And Communications Technology
IP	Internet Protocol
IPTV	Internet Protocol Television
ISP	Internet Service Provider
IT	Information Technology
IVR	Interactive Voice Response
MB	Mega Byte
MPLS	Multiprotocol Label Switching
MTIT	Ministry Of Telecommunication And Information Technology
N	Number
Paltel	Palestinian Telecommunications Company
R^2	Coefficient Of Determination
SQ	Service Quality
SPSS	Statistical Package For The Social Sciences
SD	Standard Deviation
VDSL	Very high bitrate Digital Subscriber Line
VIF	Variance Inflation Factor
WiMAX	Worldwide Interoperability For Microwave Access
WWW	World Wide Web

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Abstract

The Internet Service Provider (ISP) sector in Palestine operates in a highly competitive market, including many challenges related to the Israeli rules and regulations concerning internet service. Such challenges emphasize the need for the various ISPs to have a detailed and clear understanding of the critical service quality dimensions that affect customer loyalty, and to constantly evaluate and strengthen the service they provide. Therefore, this work aims to study the influence of service quality on customer satisfaction and loyalty in the Palestinian internet sector.

The study used a quantitative approach based on SERVQUAL dimensions to collect the data from internet subscribers through a questionnaire and the data was analyzed using statistical methods. The survey data was gathered from 403 valid responses covering more than eight ISP companies in West Bank. Examination of the study variables based on the conceptual framework is achieved by using SPSS, where means of quantitative methods such as comparison of means, simple and multiple regression were calculated.

The findings of the research indicate that, in general, the level of service quality does not meet customer expectations. In addition, descriptive

analysis of the study variables give indication that means of three service quality dimensions (reliability, responsiveness, and tangibility) have a medium degree level, while empathy and assurance have a high degree level.

The findings of the research showed that service quality positively affects customer satisfaction. A positive relationship exists between customer satisfaction and customer loyalty.

The study suggests that the effect of the responsiveness dimension on consumer satisfaction and loyalty is stronger than the effects of the other dimensions, where tangibility has the lower effect.

Finally, the study recommends the ISPs to improve the level of service quality in order to meet customer needs and wants and to gain long-term customer loyalty.

Chapter One
Introduction

Chapter One
Introduction

1.1 Chapter Overview

This chapter is a brief description of the subject of the study. The study focuses on the relationship between service quality and customer loyalty. The chapter includes subsections related to services background, short summary Bit-Stream Access (BSA) and Internet Service Sector in Palestine (ISPs), telecom industry, problem statement, expected outcome and the structure of the thesis.

1.2 Services Background

In most developed countries, the economy has been moving from product-based to service driven markets. Services have become the biggest part of most industrialized countries' economies over the past three decades (Spohrer et al, 2007). According to the central intelligence agency (CIA) (The world factbook, 2017), service sector represented more than seventy nine percent of the USA Gross Domestic Product (GDP) in the year 2016,and according to (Palestinian Economic Performance, 2015) service sector represented more than sixty two percent of the Palestinian GDP in the year 2015.

In economics and business science, Amina et al (2012) defined service based economy as value creation of the non-material equivalent of goods, creating value by servicing the consumer.

Services are not economic activities which produce physical products for

consumption in general, they produce and provide added value in forms, such as convenience, amusement, timeliness, comfort or health that are essentially intangible concerns to the purchaser (Zeithaml and Bitner, 2003). However, it is important to distinguish between services and goods and their quality. Parasuraman et al (1985) determined the characteristics of services which explain crucial differences between them and products. More precisely, the differences are intangibility, simultaneity or inseparability, heterogeneity and perishability. Furthermore, the difference between services and physical products also bring particular features to their quality.

Service is gauged to be of high quality if the provided service conforms to the customer's expectations. Service providers often evaluate the quality of service offered to their customers in order to improve their service, to quickly recognize problems, and to better assess client satisfaction (Business Dictionary, 2017).

The starting point in developing quality in services is measurement and analysis. There has been no general agreement on the measurement of the concept of service quality (SQ). Most of the researchers attempted to use SERVQUAL model, which is a conceptual model developed by Parasuraman et al, (1985) and improved in 1988 to measure SQ.

The published work undermines the role of service quality as a determinant of customer loyalty and customer satisfaction. This study will be an extension of the previous work, and it will focus on the field of Internet Service Providers (ISPs) in Palestine, where there does not appear to have

been addressed in the past.

1.3 SERVQUAL Model

The SERVQUAL scale has been the major instrument used to measure consumer's perceptions of SQ by measuring the difference between customer expectations and their perceptions of the delivered service in five dimensions: tangibility, reliability, responsiveness, assurance and empathy (Malang and Siswanto, 2011). The five quality dimensions have varying influence on customer satisfaction and customer loyalty, (Hossain, 2015; Al-Zoubi, 2013; Agus et al 2007; Caruana, 2002).

The SERVQUAL scale possesses higher diagnostic powers, compared to other scales such as SERVPERF and SIMALTO, which can pinpoint areas for managerial interventions in the event of shortfalls in the service quality. It is generally the preferred scale employed to assess customer satisfaction and loyalty (Jain & Gupta, 2004), and (Hill & Alexander, 2006).

The SERVQUAL scale constitutes an important landmark in the literature of service quality and has been extensively applied in different service markets (Jain & Gupta, 2004).

The SERVQUAL model has been described by its original founders as a simple and comprehensive multi-dimensional measuring scale that has good reliability and validity in its results. It can be applied to a large and diverse number of services and commercial enterprises (Handrinos, et al, 2015; Ajam, et al, 2014; Khamis & Njau, 2014; Papanikolaou & Zygiaris , 2014; Kushwah & Bhargav, 2014; Amiri Aghdaie & Faghani, 2012; Al-

Zoubi, 2013 and Hossain, 2015)

1.4 Telecom Industry

The worldwide revenue from telecommunication services was estimated at $2.1 trillion in 2012 and is expected to grow to $2.7 trillion in 2017 at a combined average growth rate of 5.3 percent (Mountain Lakes, 2012).

Despite the global economic crisis (2007-2009), the telecommunications sector continues to achieve high growth in revenues and it is anticipated that local investment and development in the telecommunications industry to continue to grow. The motive and the engine for these industries is consumer internet usage and business mobility solutions, which create new applications (Gaulfield, 2012).

The fact remains that the growth of the global economy in modern times, in part to progress in communications technology and telecommunications, play an important role in social and economic progress. Also, it's one of the main tools in the economic development, such as water, energy and other, (Gaulfield, 2012).

The information and communications technology (ICT) revolution has driven global development in an unprecedented way. Through technological advancements and the deployment of infrastructure, high growth rates are expected in access to information and communication technology to the billions of people all over the world. On the other hand, ICT has an important role to play in the development agenda beyond 2015,

and in achieving the goals of sustainable development in the future as the world moves faster and faster towards digital society (Sanou, 2015).

Palestinian Central Bureau of Statistics (PCBS, 2017) reported that telecom industry represented more than 5.5 percent of Palestinian GDP in the year of 2016. However, telecom industry is unlike other service sectors such as education and health. The telecom industry has definite characteristics that discriminate telecom services from other services. In particular, telecom services have developed very quickly and are adapted according to customer need and it is offered in extremely competitive markets. Thus, telecom firms do their best to enhance customer loyalty to sustain current subscribers and to improve quality of service to attract new ones (Sanou, 2015).

Success of a service provider is determined in part the high quality of its service and its relationship with the clients (Panda, 2003), which governs customer satisfaction and loyalty (Lymperopoulos et al, 2006). Research has shown that service quality affects organizational outcome such as performance superiority (Portela & Thanassoulis, 2005), growing sales profit (Levesque & McDougall, 1996; Kish, 2000; Duncan & Elliott, 2004), and market share (Fisher, 2001), improving customer relations, corporate image and customer loyalty (Newman, 2001; Szmigin & Carrigan , 2001; Ehigie, 2006). In addition, service quality and customer satisfaction were found to be related to customer loyalty (Levesque & McDougall, 1996; Newman, 2001). Preserving high levels of loyalty is very important for service provider for numerous reasons including greater

market share, through positive transfers of existing customers to new prospects, lower marketing and operational costs and higher profitability attainments (Ladhari et all, 2011).

Perceived service quality is the result of subscriber evaluation of a service provider's overall excellence or superiority (Parasuramanet et al, 1988). It could be considered as an attitude, based on the so-called disconfirmation paradigm (Asubonteng et al, 1996), where perceived service is made by the comparison of customer expectations with their perceptions of performance (Grönroos, 1984, Parasuraman et al, 1985). The earlier literature on services marketing agrees that customers base their judgments about service quality level mainly on two broad aspects (Arshad, 2014) (Olgun et al, 2013), known as: 1) technical quality which represents what a customer actually receives from the service encounter or the outcome of the service and are assessed after the service delivery, and 2)functional quality which represents the way a service is delivered to a customer or a customer's perception of the interaction that takes place during service delivery.

1.5 Broadband Internet

The term broadband commonly refers to high-speed Internet access that is always on and faster than the traditional dial-up access. Broadband includes several high-speed transmission technologies such as Digital Subscriber Line (DSL), Cable Modem, Fiber Wireless , Satellite and Broadband over Power lines (BPL), (Types of Broadband Connections, 2014).

Availability, price, location (urban or rural area) and value added service is the main factors that affect the customer's choice for broadband technology (Types of Broadband Connections, 2014).

1.5.1 Digital Subscriber Line (DSL)

DSL service is a broadband digital transmission service offered through traditional copper telephone lines. DSL is typically used to offer data, video, and voice services. DSL does not displace or disrupt the operation and quality of the existing analog telephone service, so that both analog phone and broadband services can be simultaneously offered, (Cioffi et al, 2008).

There are several types of DSL transmission technologies, the leading DSL technologies being deployed today include: Asymmetrical Digital Subscriber Line (ADSL, Symmetrical Digital Subscriber Line (SDSL), High data rate Digital Subscriber Line (HDSL) and Very High data rate Digital Subscriber Line (VDSL). The following are definition of each type:

1. Asymmetrical Digital Subscriber Line (ADSL): Used mainly by residential customers, such as Internet surfers, who downloads frequently rather than uploads data (Dsl-variety, 2014). The downstream direction is typically faster than the upstream direction in ADSL (Types of Broadband Connections, 2014). "ADSL allows faster downstream data transmission over the same line used to provide voice service, without disrupting regular telephone calls on that line" (Types of Broadband Connections, 2014).

2. Symmetrical Digital Subscriber Line (SDSL): Supports symmetric downstream and upstream data transmissions and is used typically by businesses for services such as video conferencing (Types of Broadband Connections, 2014),

3. High data rate Digital Subscriber Line (HDSL): is a higher transmission rate form of SDSL

4. Very High data rate Digital Subscriber Line (VDSL). Is faster than the others forms (Dsl-variety, 2014).

1.5.2 Cable Modem

Subscribers can access the service by just turning on their computers, without dialing-up an ISP. You can still watch cable TV while using it. Transmission speeds vary depending on the type of cable modem, cable network, and traffic load. Speeds are equivalent to DSL (Christopher and Hannah, 2015)

Cable modem is broad band digital transmission service offered on the same coaxial cables that deliver picture and sound to your TV set. Most cable modems are external devices that have two connections: one to a computer, the other to the cable wall outlet. They provide transmission speeds of 1.5 Mbps and higher (Argaez, 2016).

1.5.3 Fiber Optic

Wires are tiny strands made of plastic or glass which are thinner than a single human hair. It was designed to carry data at very high speeds. Fiber transmits data at speeds far exceeding current DSL or cable modem speeds,

typically by tens or even hundreds of Mbps. Fiber optic broadband service is usually available in limited areas.

1.5.4 Wireless Internet

Wireless broadband connects a home or business to the internet using a radio link between the customer's location and the facility of the service provider. Wireless broadband can be mobile or fixed.

Wireless broadband internet access services offered over fixed networks allow consumers to access the internet from a fixed point while stationary, as such it requires a direct line-of-sight between the wireless transmitter and the receiver. These services have been offered using both licensed spectrum and unlicensed devices. For example, thousands of small Wireless Internet Services Providers (WISPs) provide such wireless broadband at speeds of around one Mbps using unlicensed devices, often in rural areas not served by cable or wire line broadband networks. Wireless Local Area Networks (WLANs) provide wireless broadband access over shorter distances and are often used to extend the reach of a "last-mile" wire line or fixed wireless broadband connection within a home, building, or a campus environment. Wi-Fi networks use unlicensed devices and can be designed for private access within a home or business, or be used for public Internet access at "hot spots" such as restaurants, coffee shops, hotels, airports, convention centers, and city parks.

Mobile wireless broadband services are also becoming available from mobile telephone service providers and others. These services are generally

appropriate for highly-mobile customers and require a special PC card with a built in antenna that plugs into a user's laptop computer. Generally, they provide lower speeds, in the range of several hundred Kbps. (Types of Broadband Connections, 2014).

In remote areas where it is not possible to provide ADSL or cable broadband service, wireless internet access is the best option. The development of a dedicated telephone line in this type of service is not required. Wireless Local Area Networks (WLANs) provides local coverage using wireless technology (Larsson et al, 2014).

The wireless broadband works by the wireless router, so any ADSL (phone line) or cable broadband service scale can be transformed into a wireless connection simply by steering - change and there is no need for a new broadband package. (Baccelli & Blaszczyszyn,, 2008).

1.5.5 Satellite

Just as satellites orbiting the earth provide necessary links for telephone and television services, they can also provide links for broadband. Satellite broadband is another form of wireless broadband. It is also useful for serving remote or sparsely populated areas.

Downstream and upstream speeds for satellite broadband depend on several factors, including the provider and service package purchased, the consumer's line of sight to the orbiting satellite, and the weather (Types of Broadband Connections, 2014).

Satellite Broadband service is the most reliable since it can be used almost

anywhere. It should be noted that satellite communications come in two different types in any one way, and communications dual track. They help in having connection at a lower cost and higher speed, and have reliable connections to the Internet directly to your computer. It connects enterprises to broadband service in most remote areas, keepings its customers always smiling (Marzetta, 2010).

Satellite broadband is a network connectivity provided through low-earth-orbit (LEO) or geostationary satellites, with the latter providing much faster data rates. Satellite broadband enables internet access via satellite in two steps (Larsson et al, 2014):

1. A personal computer broadcasts requests via satellite modem to a satellite dish placed on top of a home or business.

2. The dish sends and receives signals from the orbiting satellite. If the dish is able to get a clear view of the southern sky (over the United States), a user can receive satellite internet access.

Satellite Internet systems are independent alternatives to provide fast Internet broadband (domain) bi-directional through a small shower from any region except most of the Arctic and Antarctic zones. There are more than 302 communication satellites which are deposited in a fixed orbit around the Earth, specifically directly over the equator. The distance among them is typically two or three degrees. The satellite around the Earth at the same speed and direction of rotation of that of the earth so they appear stationary in the sky for any spot on earth, so you can use fixed and well directed small aperture to connect to a satellite. This is called VSAT:

very small aperture terminal, (Argaez, 2016).

1.5.6 Broadband over Power line (BPL)

It is a system for transferring data connectors that are also used for power transmission. It is also known as power line carrier and power digital subscriber line (PDSL), and communication pipes, power line telecommunications (PLT), power line networking (PLN), and broadband over power lines (BPL), (Marzetta, 2010).

Transfer internet data through broadband over power lines, BPL, has become interesting experts in its potentials to the investment in the late nineties as a way of communication and rapid information delivery to homes and businesses, a reality now that there have been extensive research, testing and initial experiments in this regard. Various companies, including Google, believe that BPL is a rich source of revenue, convincing it to spend heavily in order to develop this new technology. (Argaez, 2016).

BPL modem is connected to any electrical socket in the building to gain access to radio signals by the BPL where your modem technology converts radio waves into data. In the end, the user connects the BPL modem to the computer or "Server" or to the distributor "Switch", or to wireless access point, (Cioffi et all, 2008).

1.6 A Brief Overview of the Internet Service Sector in Palestine

Before the Oslo agreement in 1993 between the Israelis and the Palestinians, the Israel occupation was responsible for providing telephone service to Palestinians. Thereupon, the service was restricted in a specific area, mostly

in the cities with limited capacity. Therefore, few customers were able to obtain the service. Then, the responsibility of providing telephone services moved into Palestinian control through 1994-1996 period, which saw the installation of networks all over the West Bank and Gaza strip and provided services to subscribers. But because of shortage of funding and limited resources the development was slow. A private company "Paltel" bought the Palestinian telephone network in 1997, and obtained a license to provide telecom services over the West Bank and Gaza Strip, which included land line phone services, wireless phone, and data services.

Paltel constructed Global System for Mobile Communications (GSM) network and presented wireless phone (mobile) services in 1999, and established Jawwal (subsidiary company) to manage mobile services. Alongside the mobile network, Paltel constructed data networks based on Asynchronous transfer mode (ATM) technology and during the year 2000 it launched data services (leased lines and frame relays) targeting corporate customers. Furthermore, a limited number of companies were started to provide internet services to Palestinian customers via dial-up connection over Paltel telephones lines. Even so, the internet market was poor and limited for a certain proportion of the population till the end of 2004.

In 2005 the internet market in Palestine began to grow rapidly when Paltel announced free subscription to the internet over fixed telephone lines in corporation with virtual internet service providers (ISPs). This was followed by another improvement in the beginning of 2006 when it launched broadband services. Later on, in 2007, Paltel launched internet protocol -

virtual private network (IP-VPN) service for corporate customers only.

So, competition began to appear during 2005-2008 in the internet services. Also, even the role of ISPs was limited to reselling services as virtual ISPs, more than twenty ISPs appeared in market. On the other hand, Wataniya mobile acquired the licensed to provide wireless services in Palestine as a second operator in this field.

The real competition of internet services in Palestine started in the year 2010 when the Ministry of Telecommunication and Information Technology (MTIT) liberated the internet market by announcing Bit-Stream Access (BSA).

Bit-Stream Access (BSA) enables an ISP to offer its End Users Internet services using the infrastructure of the Palestinian telecommunications company (PALTEL)'s, Asymmetric Digital Subscriber Line (ADSL) access and core infrastructure. BSA provides an ISP with access to PALTEL's internet protocol / Multiprotocol label switching (IP/MPLS) Core network to provide Internet services to the end users using PALTEL's ADSL access services. BSA is an intermediate input service under which the ISP gets Backhaul or Handover Links from PALTEL to combine with ADSL access service (offered by PALTEL) to end users, as well as other wholesale services, such as Internet Capacity, offered by PALTEL or other licensed broadband providers to deliver Internet over ADSL services to End Users. Since 2010, ISPs have become actual internet service providers rather than reselling it. Moreover, ISPs started to compete with each other in providing internet and related value-added services to both new customers and the

existing ones (Gazi, 2017)

Moreover, there are a plenty of development opportunities in the immediate future, both mobile operators, Jawwal and Wataniya, are waiting for Israeli approvals to launch 3G services which include wireless internet, in addition to voice services. Even so, being aware of the threat of wireless internet, PALTEL is looking for selling high speed internet access line by using new technologies such as Very high bitrate Digital Subscriber Line (VDSL) and fiber to the Home (FTTH). Such high speed lines exceed achievable speeds by 3G wireless. Moreover, Jerusalem Electricity Company became authorized to provide internet service to corporate subscribers using their own fiber optic network, while they are evaluating the introduction of business of land phone lines and FTTH.

However, BSA ISP's attempts to increase its market share and total revenue by developing a special low price campaigns for the new customer only. Therefore, the competition between the BSA ISP's intensifies as the switching cost for BSA Customers is very low, the focus of providers' strategy shifts from a product to a consumer orientation in order to discriminate themselves in the mind of the customers. The companies recognize that, given the difficulty of new gross additions, the challenge is to create a healthy relationship with the existing customers so as to keep them. Since the customers can choose their service provider without any restrictions, or they can change their current provider, or they can move to 3G when it becomes available without any significant cost if any.

The research tries to test the relationship among perceived quality

performance, customer satisfaction, and loyalty. The five dimensions of SERRVQUAL model and their relation to customer satisfaction and loyalty were used in this study based to some extent on the methodology and approach employed by previous authors. (Angelova & Zekiri, 2011; Arshad, 2014; Ladhari et all, 2011).

1.7 Problem Statement

In a developing country, such as Palestine, broadband internet connectivity is becoming an imperative step toward the development of the information and communication technology (ICT) sector. Mobile and wireless internet technology is currently available in Palestine. Jawwal and Wataniya offer internet and data service through their networks. Their systems relies on Enhanced Data Rates for GSM Evolution technology (EDGE). GSM is considered as a low internet speed in comparison to the upcoming 3G, 4G, or to the BSA model.

ISP's in Palestine strive for long lasting success through building long and solid relationship with their customers. Meeting customers' expectations are a challenging task for ISP's. Palestinian Internet sector is characterized as a highly competitive market. Therefore, it is highly required that ISP companies evaluate the level of quality they offer to their customers. They also have to understand the critical service quality (SQ) factors that affect customer loyalty to accomplish greater benefits and high returns. This complicated picture needs ongoing studies by the ISP's sector to obtain quantitative results as outputs. Such results may clarify the real picture of

the ISP's market and could lead to well-informed decisions. However, there is no data available in the open literature that deals with the internet sector in Palestine in terms of the SQ it provides and its relationship to customer loyalty. Therefore, this research is an attempt to study the effects of service quality on customer satisfaction and loyalty.

The research attempts to study SQ in the BSA ISP's in Palestine using SERVQUAL tool in order to enhance quality and to promote customer loyalty and therefore to decrease the rate of customer churn.

The possibility of introducing new technology into the ISP market such as 3G or 4G may have an influence on service quality and customer loyalty. This factor is not covered by this study.

1.8 Research Questions

The current study attempts to develop an understanding of the relationship between ISP service quality and customer loyalty in Palestine, if any, and to assess the strength of such relationship, and how ISP's have to change their business model in order to increase customer loyalty. It is planned to accomplish the above through answering the following overall questions:

1. Does service quality lead to customer satisfaction in internet service sector in Palestine?

2. Is a satisfied customer in internet service sector in Palestine a loyal one?

3. Is customer satisfaction with service quality in internet service sector in Palestine a prerequisite for loyalty?

The research will attempt to answer these question through the five dimensions of SERVQUAL tool.

1.9 Significance of the Research

Having loyal and repeat customers are a crucial factor in order to have a successful business. This requires providing excellent customer experiences across all channels and all the time. In addition, it is very important to understand the expectations of such customers and what your competition is up to. Getting feedback from them may help the business grow. Such feedback could include what other products a business should provide, prices, etc. Doing so can prevent customer churn and may attract new customers.

Therefore, it is very important for any business to regularly assess the level and quality of the services they provide to their customers. And given the apparent lack of research in the subject, the current study attempts to measure the quality of internet services provided to the customers, as the quality of the service is one of the main pillars that help ISP Sector increase their profitability by improving their services and to gain new market share. This can assist the management of ISP Sector in Palestine to identify areas which they need to address in order to improve the quality of service to its customers.

1.10 Expected Outcome

This study aims to find the aspects of quality that affect the customer loyalty of BSA ISPs, and therefore is expected to provide suggestions and

recommendations to the BSA ISP's company in order to enhance its service quality and to improve customer loyalty

1.11 Structure of the Thesis

This study is organized in five chapters. Chapter one focuses on problem statement, and importance of study. Literature review and the hypothesis development are presented in chapter two. Chapter three, presents the study methodology, population and sampling method, survey instrument and data collection method. Chapter four focuses on data analysis, results and discussion. Finally, the conclusions, recommendation, limitation, future research and the implications of the study are presented in chapter five.

Chapter Two
Literature Review

Chapter Two
Literature Review

2.1 Chapter Overview

This chapter is a review of the literature supporting the current research. It discusses the relevant concepts of service management including services versus physical products, service quality, service loyalty, service quality versus physical products quality and customer loyalty.

2.2 Concepts Related to Service Management

2.2.1 Service Concept

Service can be defined as those activities and intangible events that aim to satisfy the final consumer needs in exchange for payment of a certain price, without any exchange or sale of physical goods. It is also defined as any act or performance of an intangible provided by one party to another without resulting in the ownership of something (Customer Service, 2017) (Service Sector, 2017), (Amina et al, 2012). In this regard, services can be defined as the application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself (Al-Zoubi, 2013).

2.2.2 Services versus Products

It is essential to differentiate between services and goods. Services have four features which explain essential differences between services and physical products. These differences are: intangibility, simultaneity (also

called co-production or inseparability), heterogeneity and perishability (Olgun et al, 2013).

Intangibility means that services are not similar to physical entities, and are actions that cannot be touched, felt, tasted, or seen. (Fraering & Minor, 2013).

Simultaneity (or inseparability) means that most services are produced, delivered and consumed at the same time (Potluri & Hawariat, 2010). It reflects the simultaneous delivery and consumption of services (Fraering & Minor, 2013). Therefore, the service provided can't be tested before it is delivered to the customers.

Heterogeneity represents the divergence in delivered service relies on time, customer, provider and circumstances. This cause a problem in the services that relay on several workers due to differences in labor performance from day to day and from one to another (Antonio & Lobo, 2014). Service providers use heterogeneity as an advantage to offer customized and flexible services to their customers (Al-Zoubi, 2013).

Perishability means that services cannot be kept in stock retained and sold when demand, resold, or returned (Amina et al, 2012). Therefore, it is possible to conclude that service providers will lose unused service capacity and service demand that exceed service capacity.

2.2.3 Service Quality (SQ)

Various institutions and companies in the world are seeking to consolidate the principles and concepts of total quality management (TQM) in their manufacturing processes, service and productivity management. The new

challenges associated with strong competition, free trade that allows free flow of goods and services between nations, and the abolition of custom barriers, give the customers various options. In the process, these challenges emphasize the need for TQM implantations in both service and tangible industries. This becomes even more important as the purchasing decision is no longer just price-dependent as there are other variables brought about by new options. The new options include the quality of the product which represent one of the main determinants of the purchasing decision (Yohanes et al, 2012).

Quality in services is a critical factor for the growth and development of service sector business enterprises (Fraering & Minor, 2013). Service quality works as an antecedent of customer satisfaction (Potluri & Hawariat, 2010). Moreover; it has become so important for businesses not only to succeed, but, in some cases, to survive (Hossain, 2015).

Antonio and Lobo (2014) noted that the delivery of services with high level of quality is the key strategy for the success and survival of any business organization. Boshoff and Gray (2004) pointed out that paying more attention to service quality can distinguish the services of a provider from another, which can lead to attaining a continuous competitive advantage.

Olgun et al, (2013) stated that service quality can also be defined as an inference regarding the superiority of a product or service based on a rational assessment of its characteristics or attributes, or as an affective judgment or emotional response similar to an attitude.

Ali et all, (2013) claimed that service quality means organization's trial to design and deliver the service properly the first time, to perform better the next time, and to achieve customer satisfaction at the same time, and enjoy competitive advantages compared to the service offered by similar organizations.

As well, service quality can be defined as measuring the ability of service delivered to the customer is compatible with the level of expectations, so as to achieve conformance with the expectations set by the customer, (Agus et al, 2007).

2.3 Measuring Service Quality (SERVQUAL Scale)

Measuring service quality has raised huge interest and debate in the literature. Measuring service quality allows comparison before and after changes to determine the effectiveness of service development. Potluri and Hawariat (2010) stated that, the starting point in developing quality in services is analysis and measurement. There has been no general agreement on the measurement of the concept. Most of the researchers attempted to use SERVQUAL model, which is a conceptual model developed by Parasuraman et al, 1985) and improved in 1988 to measure SQ.

The Gap Model, (2017) identified five "gaps" that can cause quality problems in organizations. The first gap can result from discrepancies between the perceptions of management and consumers' expectation, while the discrepancies between management perceptions and service specifications represented the second gap. The third gap is due to the

difference between service specifications and service delivery. The fourth gap is the actual service delivery-external communications gap. The fifth gap is the difference between the customers' expectations and the perceptions of service actually received, the SERVQUAL GAP model is depicted in figure (2-1).
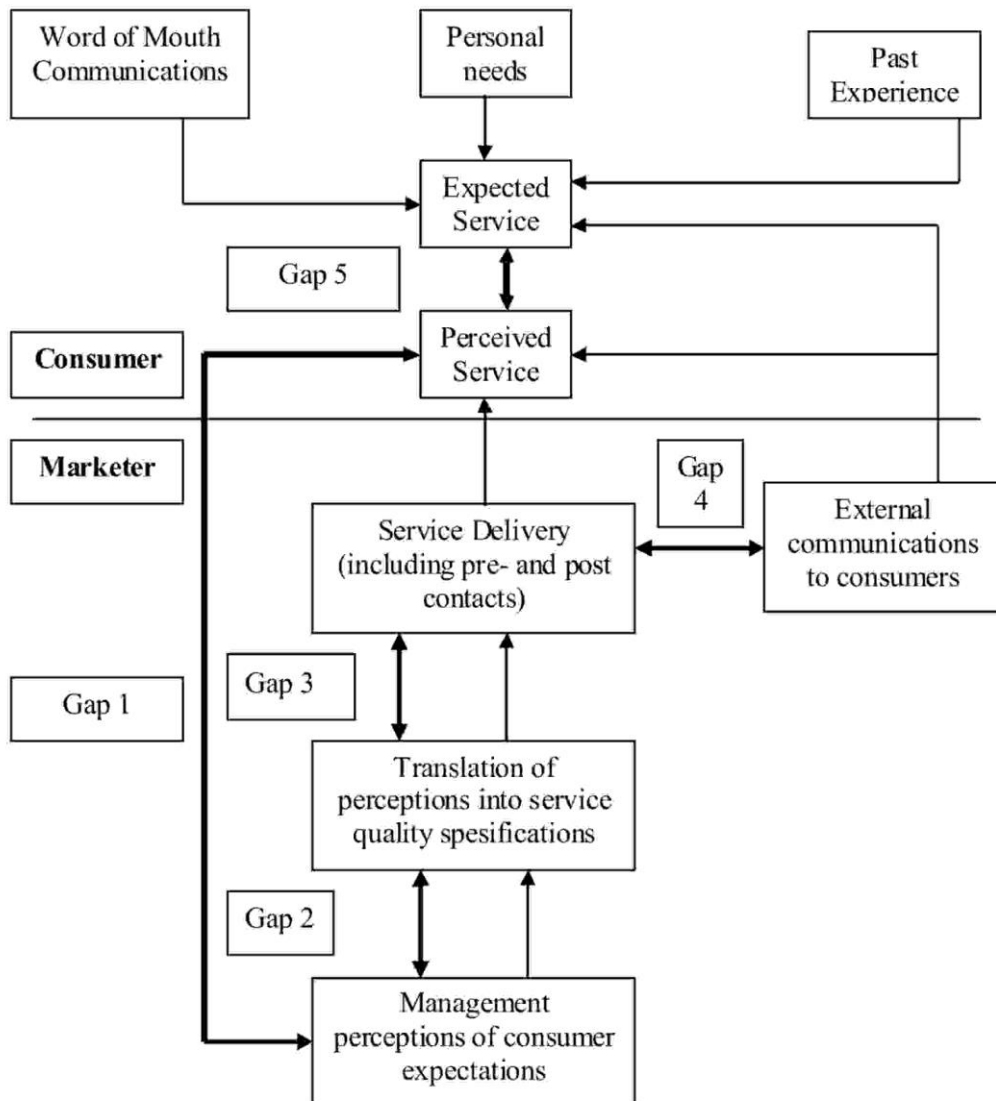
Figure (2.1): SERVQUAL Gap Model (Parasuraman et al. 1985; Curry et all, 1999; Luk and Layton, 2002)

More specifically:

Gap 1: Between customer expectation and management perception of those expectation.

Gap 2: Between management perceptions of customers' expectation, and service Quality specification.

Gap 3: Between Service Quality Specifications and Service delivery.

Gap 4: Between Service delivery and external communications to customer's delivery.

Gap 5: Between customer expectations and perceived Service

2.4 Dimension of SERVQUAL

The SERVQUAL scale has been the major instrument used to measure consumer's perceptions of SQ by measuring the difference between customer expectations and their perceptions of the service delivered. SERVQUAL has five dimensions as follows (Malang & Siswanto, 2011):

1. Tangibility: The physical aspects of a service firm such as buildings, equipment, interior design of buildings and facilities necessary to provide the service, and the presentation of staff (Malang, and Siswanto, 2011)

2. Reliability: expressed as the organization's ability from the viewpoint of customers to provide service at the time required by the customer and accurately satisfy his/her ambition, as well as reflect the extent of the fulfillment of its obligations towards customer expectations.

3. Responsiveness: It is the ability to deal effectively with all customer

requirements and to respond to complaints and work to resolve them quickly and efficiently. This includes convincing customers that they are appreciated and respected by the institution they are dealing with. In addition the response reflects the initiative to provide service by the staff willingly.

4. Assurance: It is the confidence that the service provided to customers is free of error, danger or doubt, including psychological and physical confidence.

5. Empathy: The provision of caring, individualized attention to customers including access, communication, and understanding the customer.

The process of measuring quality gaps using SERVQUAL scale (van Iwaarden et al., 2003) depicted Figure (2-2)
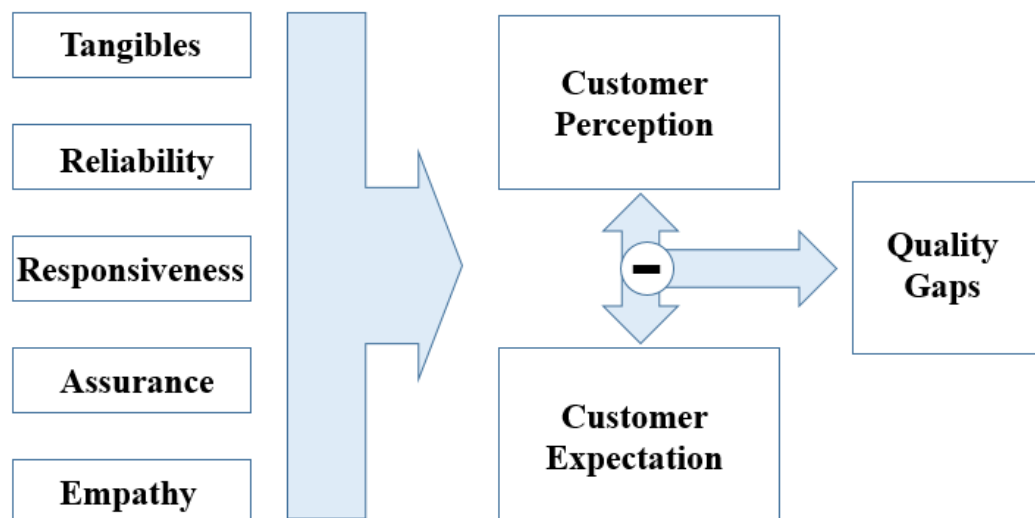
Figure (2-2): Measuring Quality Gaps using SERVQUAL scale (van Iwaarden et al., 2003)

2.5 Level of service quality

The five dimensions that are used to measure the quality of services constitute a general framework to measure the quality and to determine their level. There are five levels of service quality which can be summarized as follows (Luk et all, 2002; Shahin & Samea, 2010):

1. The expected quality by customers, which represents the level of quality of the services they expect to get from the service provider.

2. Perceived quality by the provider which is perceived by the management in the service provided to its customers and the management would think it satisfy the needs of its customers

3. Quality is the way that leads out of service by the firm's employees, which are subject to the guidelines of the quality of service provided.

4. The actual quality (perceived by customers) delivered by the service provider, which reflects the extent of compatibility and the ability to use the methods of service, which will satisfy customers.

5. The desired quality for customers of any level of satisfaction and acceptance that you can get from the company customers, when they receive the services.

2.6 Customer loyalty

Antonio & Lobo (2014) stated that the cost of serving a loyal customer is less than the cost of serving a new customer. Ladhari et al. (2011) defined the customer loyalty as "the degree to which a customer exhibits repeat purchasing behavior from a service provider, possesses a positive

attitudinal disposition toward the provider, and considers using only this provider when a need for the service exists.

According to Boohene & Agyapong (2011), loyalty is the actual re-buying of a brand, regardless of commitment. Chen et al. (2010) noted that it is not always the case that customer defection is the inverse to loyalty, while Al-Zoubi (2013) suggested that, "even a problem is not solved; approximately half of the customers would remain with the firm". This may be due to switching costs, lack of perceived differentiation of alternatives, location constraints on choice, time or money constraints, habits or inertia that are not related to loyalty (Chen et al, 2010) .

Customer loyalty is perceived as the strength of the relationship between an individual's relative attitude and repeat patronage (Boohene & Agyapong, 2011).

In line with Amina et al. (2012), Rauyruen et al. (2007) there are three fields of research in customer loyalty: behavioral loyalty, attitudinal loyalty and composite loyalty, where behavioral loyalty is focuses on the patterns of repeat purchasing, attitudinal loyalty is focuses on the willingness to recommend a product or service and the positive word of mouth. Composite loyalty is a mix of both. This study will focus on composite loyalty, as it fully explains the concept of customer loyalty.

 Gee et al, (2008) stated several advantages of customer loyalty summarized as follows:

- Service cost for loyal customer is less than that of unsatisfied customer.

− The company can sell the loyal customer at a higher price.

− Loyal customers will serve as a marketer by word-of-mouth marketing.

Customer loyalty is a key component for a brand's long-term viability (Ganesh et al, 2000). It helps a company face certain uncertainties and problems in an intense competitive market. Potluri & Hawariat (2010) defined customer loyalty as a deep held commitment to repeat patronage from a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing despite situational influences and marketing efforts that may potentially cause switching behavior. Customer loyalty has been found to be the key mediating variable in explaining customer retention, which is the likelihood of a customer returning, making business referrals, providing strong word-of-mouth, as well as providing references and publicity (Argaez, 2016), (Olgun et al, 2013).

2.6.1 Framework for measuring customer loyalty in telecommunication market

Corporate image, perceived service quality, trust and switching cost are the main dimensions that affect customer loyalty in choosing desired telecommunication service providers, (Serkan & Gökhan , 2005).

Corporate image is defined as the general impression made in the minds of community about a firm which is associated with physical certain behavioral aspects of the firm (Nha & Gaston , 2001). It is a result of an accumulation process which incorporates diverse information used by

consumers to form a perception about a firm. A good corporate image can be created to help form and maintain loyal relationship with customers (Leelakulthanit & Hongcharu, 2011) and power repeat patronage (Ladhari et al, 2011).

The degree of divergence between customers' perception of service performance and their normative expectations for the service is called perceived service quality (Antonio & Lobo, 2014). According to Boohene & Agyapong (2011), in order to increase profitability, the organization must have high level of customer retention, which can be achieved by high service quality. It has been found that repurchase intention, recommendation, and resistance to attractive and better alternatives are positively related to perceived service quality (Amina et al, 2012; Al-Zoubi, 2013; Hossain, 2015).

A customer buying retention to a certain brand is positively related with trust towards the brand (Fraering & Minor, 2013).

On the other hand, the costs associated with changing the service provider which will not occur if a customer stays with the current service provider, is called switching cost. An increase in this cost would result in higher risk and burden on the customer (Ladhari et al, 2011).

According to Amina et al (2012), perceived service quality, corporate image, trust and switching cost are factors not only directly influence customer loyalty, but also interact with each other in influencing customer loyalty in telecommunication industry.

2.7 Customer Satisfaction

The concept of customer satisfaction is one of the concepts that aroused the interest of several researchers and those interested in the field of management and marketing. As a result, most institutions strive for excellence based on respect for the customer and working hard to please him. This concept has been studied in details by several researchers (Alhemoud, 2010).

Al-Zoubi (2013) did a comprehensive research to examine customer satisfaction. He defined customer satisfaction as emotional or cognitive response, relates to a particular focus on expectations, product or consumption experience, and happens at a specific instant in time after experience or consumption.

In customer satisfaction literature, numerous authors found empirical evidence for the relationship of customer satisfaction with customer loyalty such as Agus et al, (2007) and Al-Zoubi, (2013). Antonio & Lobo, (2014) and Leelakulthanit & Hongcharu, (2011) showed that customer satisfaction is strongly related to service quality. Olgun et al, (2013) stated that there is a double connection between service quality and customer satisfaction.

Perceived service quality is a comprehensive decision or attitude concerning the superiority of the product or service, whereas satisfaction is associated with a specific transaction (Chen et al, 2010). Furthermore, customer satisfaction has repeatedly been suggested to be the prominent cause of loyalty (Fraering & Minor, 2013). Hossain (2015) claimed that there is a significant positive relationship between customer satisfaction

and customer loyalty retention.

2.8 Interaction between satisfaction and quality

According to Al Zaubi (2013), the chronology of the relationship between customer and the institution could be clarified in four stages:

1. In the beginning, future customer has expectations. The process of carefully listening to the customer can uncover the expectations of a future customer. Then the organization can transform these expectations to the desired quality. The goal of this process is to answer and meet the customer's expectations.

2. The second phase represents the path that lead to achieving the desired quality upon delivering the service to the customers. This stage includes effective participation of the client in achieving quality.

3. After obtaining the expected quality, the next stage is to transfer the future customer into buyers by contracting and selling, which after the purchase process, allows customers to use the service, then configured perception (perceived quality) is established.

4. At this stage, the comparison between the expected quality (before buying) and perceived quality (after the purchase and use) is made in order to evaluate customer satisfaction or dissatisfaction.

2.9 Linking service quality, customer satisfaction and loyalty

Potluri & Hawariat (2010) assessed and reviewed fixed line telecom customers' perception of the quality of after-sales services provided by Ethiopian Telecom. The population of their study was 450 respondents of

telecom customers who are in Addis Ababa. The results show low customer satisfaction due to in part to lack of clarity of bills, delays in decision-making regarding customer complaints, and inefficient staff when delivering good quality after-sales service. The study concluded that the after-sales service, such as maintenance, service bills, and dealing with the complaints were at the lowest level of quality.

Mosahab et al, (2010) showed that customers' expectations were higher than their perceptions, but quality was low. Service quality did not satisfy customers' expectations. In direct relation, customer loyalty was positively affected by service quality. That was an important indicator that customer satisfaction plays a role as a mediator regarding the effects of service quality on service loyalty.

Their study concluded that loyalty and customer satisfaction resulted from the level of quality of services, and the quality of services is the result of the level of after-sales services in the telecommunications sector.

Angelova & Zekiri (2011) measured customer satisfaction with service quality using an American Customer Satisfaction model. The aim of this research was to apply the American customer satisfaction index (ACSI) model in the context of service quality in the Macedonian mobile telecommunication industry. The main variable of the study was the effect of perceived quality and customer expectation on customer satisfaction and perceived value. The result showed that mobile users in Macedonia were not satisfied with service quality, this was related to customers' expectations being higher than customer perception. The study

recommended that companies can better allocate resources to provide better service to their customers. Thus, understanding customer satisfaction with service quality is very important and challenging.

Amina et al, (2012) conducted a study which aimed to find factors contributing to customer loyalty towards telecommunication service provider in Malaysia. The data was collected from 185 telecommunication users among university students. They found that corporate image, perceived service quality, trust and switching cost were significantly and positively related to consumer loyalty. Service quality is the main factor effecting customer loyalty. This study concluded that customers are able to judge the quality of excellent service offered by telecommunications service providers, and therefore commitment and repeat purchase of telecom service providers.

The study by Al-Zoubi (2013) aimed to find the effects of customer loyalty in the Jordanian telecom sector. The purpose of this study was to verify how customers perceive and judge service quality in mobile telecom industry. The population of this study was IT and MIS university students. He found that there was a significant effect of SERVQUAL on customer loyalty in the Jordanian Telecom market. Also, he found that the three dimension of SERVQUAL, empathy, reliability, and responsiveness were significant in effecting customer loyalty. While the others three dimensions (physical, appearance and assurance) did not affect customer loyalty. He recommended that the company should conduct more research to improve loyalty in the Jordanian market, since this market is characterized as highly

competitive and regulated. Telecommunication Company must focus on improving the performance of organizations, and on improving relations with customers through continuous improvement in the service quality, and on paying more attention on the two dimensions which appeared to have no effect on customer loyalty.

Antonio & Lobo (2014) investigated the antecedents to attitudinal and behavioral loyalty of customers of Internet Service Providers (ISPs). In addition, this study endeavors to identify the relationship between overall service quality and cognitive, as well as affective evaluations of customers. An assessment of service quality dimensions is also included to fill the void of research on modeling service quality in high tech services. By making customers more central in company operations, these strategies can potentially reduce the expenses associated with acquiring new customers. This study found that overall service quality will affect customer trust, satisfaction and commitment. This leads to increase attitude and behavioral loyalty. Table 2.1 summarizes the major findings of the previous studies.

Table: 2. 1 Summary of the major findings of the consulted literature

Author	Variable			Finding and conclusion
	Independent	Moderating	Dependent	
(Potluri& Hawariat, 2010)	After-sales-services Information provision and service delivery Maintenance Billing service Complaint handling	Service quality Dimensions Reliability Responsiveness Assurance Empathy Tangibles	Customer satisfaction	Low in customer satisfaction due lack of clarity of bills, delays in decision-making, and in efficient.
(Mosahab, Mahamad, & Ramayah, 2010)	Perceived Services Quality Reliability Responsiveness Assurance Empathy Tangibles	Customer Satisfaction	Customer Loyalty	Service quality does not satisfy customers' expectations. In direct relation service quality has positive effect on customer loyalty. This is an important indication that customer satisfaction plays role as a mediator in the effects of service quality on service loyalty. Loyalty changes can be explained by satisfaction and service quality
(Angelova & Zekiri, 2011)	perceived quality and customer expectation	customer satisfaction and perceived value	customer loyalty customer complain	Mobile users in Macedonia were not satisfied with service quality. Due to customers' expectations were higher than customer perception. Understanding customer satisfaction with service quality is very important and

Author	Variable			Finding and conclusion
	Independent	Moderating	Dependent	
				challenging.
Amina, Ahmad, & Huib, 2012	Perceived Service Quality	Corporate Image, Trust, Switching Cost	Customer Loyalty	Perceived service quality, trust and switching cost are significantly and positively related to consumer loyalty.
(Al-Zoubi, 2013)	Physical Appearance Empathy Reliability Responsiveness Assurance		Customer loyalty	There is a significant effect of SERVQUAL on customer loyalty. Empathy, reliability and responsiveness have significant effect on customer loyalty. While two dimension (physical appearance and assurance) do not effect customer loyalty. Focus on improving relations with customers through continuous improvement in the service quality
(Antonio & Lobo, 2014)	Over all service quality	Customer trust, satisfaction, commitment and value	Attitude loyalty Behavioral loyalty	Overall service quality will effect on customer trust, satisfaction and commitment. This leads to increase attitude and behavioral loyalty.

2.10   Theoretical Model of this Research

The research theoretical model is shown in Figure (2-3), (Agus et al, 2007 and Caruana, 2002). This research will study the five elements of service quality, namely: tangibles, reliability, responsiveness, assurance and courtesy (Agus et al, 2007), and their relationship on customer satisfaction and loyalty.
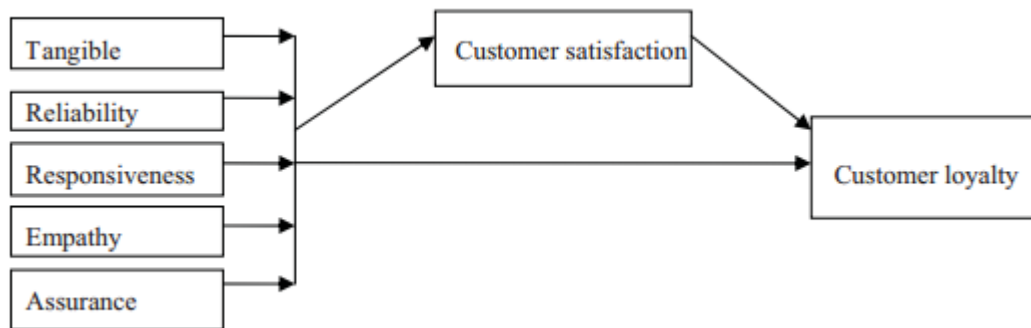
Figure (2-3): Research theoretical model (Agus et all, 2007; Caruana, 2002)

The study aims to address the following hypotheses:

H1: There is a significant effect of service quality (Empathy, Reliability, Responsiveness, Tangibility and Assurance) on customer satisfaction on internet Sector in Palestine

H2: There is a significant effect of customer satisfaction on customer loyalty in internet Sector in Palestine.

H3: There is a significant effect of service quality (Empathy, Reliability, Responsiveness, Tangibility and Assurance) on customer loyalty through customer satisfaction in internet Sector in Palestine.

Chapter Three
Research Methodology

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Research Methodology

3.1 Overview

This chapter discusses the procedures and techniques employed in this research. This includes; the adopted approach of the study, its strategy, data collection and tools, and data analysis and validation.

This chapter enables the reader to gain a fairly complete understanding of the various set of guidelines, tools, and methods which were employed in order to help achieve the objectives of the study.

3.2 Types of Research

Based on the objective of a scientific research, the research can be categorized into three types; exploratory, descriptive, or explanatory (Saunders et al, 2003 and Robson, 2002).

Exploratory research can be described as understanding what is happening in order to seek new insights, raise questions and to assess phenomena in a different way, identifying any new potential knowledge, developing a new understanding, and discovering other factors associated with the topic (Brink and Wood, 1998). Furthermore, exploratory study is a means which can be used in order to broaden the knowledge in a particular subject or to analyze and understand issue, or to determine an enigmatic problem (Saunders et al, 2003).

This kind of research can be conducted using any of the following: interviewing focus groups, using qualitative approaches with experts in the

subject, and reviewing available literature (Saunders et al, 2003). Generally, exploratory research studies the related aspects in detail to attain suitable description of the realism of the existing circumstances (Brink and Wood, 1998).

Descriptive research attempts to define the situation and phenomenon, which makes it possible to answer certain questions (Saunders et al, 2003). Therefore, it is intended to measure the characteristics described in the research questions. Hypotheses typically assist to monitor the progress of research and offer a list of measurable characteristics (Hair et al, 2003). Even though descriptive analysis defines the concepts and fundamentals of a theory (Snow and Thomas, 1994), it does not describe the nature of interactions between the various fundamentals (Smith and Albaum, 2005).

The explanatory research is usually carried out in order to explain a cause-and-effect relationship that might exist between dissimilar factors during the study of a problem or specific circumstance (Saunders et al, 2003). Explanatory research can be designed to find out if one incident causes another (Hair et al, 2003). As a result, explanatory studies identify a comprehensive and reasonable set of causal actions connecting certain variables and construct in a story why they happen (Miles and Huberman, 1994).

As the aim of this study is to determine relationship, if any, between customer satisfaction and loyalty for the Internet Service Provider (ISP) in Palestine, this study is mainly exploratory in nature and descriptive in its analysis of the data.

3.3 Approach of Research

The research approach can be either qualitative, quantitative, or mixed (Creswell, 2003). The most important difference between a qualitative and quantitative research designs is that qualitative research focuses more on words than numbers (Bryman and Bell, 2007). The mixed approach attempts to take advantage of the strength of the two approaches and to reduce their weaknesses (Johnson and Onwuegbuzie, 2004).

3.3.1 Qualitative Approach

Qualitative research approach depends on data collection that relies on words more than numbers and their sub equal interpretation. Qualitative research has four main characteristics; first, it happens in a natural environment; second, data is derived according to perspectives of both either the interviewee or the interviewer perspective; third, a flexible research design is used and therefore data collection or analysis can be modified due to definite restrictions; and fourth, there is no need to standardize the instrumentation methods or modes of analysis (Grönroos, 1984). This means that researchers in this study thinks in their normal situations and seek to interpret or make sense of phenomena according to the understanding people bring to them (Newman and Benz, 1998). There are several ways to collect data including; surveys, interviews, focus groups, conversational analysis, observation and ethnographies (Olds et al, 2005).

3.3.2 Quantitative Approach

Quantitative research consists of the collection and treatment of a relatively large amount of data. Therefore, quantitative studies employ uniform measures to fit a diversity of views and experiences into previously determined categories of answers (Patton, 1987). Therefore, this approach is appropriate for easily measurable and descriptive information. In contrast, quantitative approach is intended to recognize and assess research hypotheses designed according to present theory (Cavana et al, 2001). Therefore, a specific scope of a given survey is essential in order to be able to apply statistical methods to assess the suggested hypotheses (Malhotra et al, 2004). There are diverse methods to conduct qualitative studies including; surveys, experimental designs, and statistical analysis (Olds et al, 2005; Malhotra et al, 2004).

3.3.3 Mixed Approach

Mixed methods research refers to a type of research where combined quantitative and qualitative research techniques, methods, approaches, concepts or language are used (Johnson and Onwuegbuzie 2004, and Onwuegbuzie and Leech, 2004). According to Johnson and Onwuegbuzie (2004) the aim of mixed approach is to use the strengths of qualitative and quantitative approaches and thus to minimize their weaknesses in a research study. It tends to also converge or confirm findings from different sources (Creswell, 2003). The term "mixed methods" is sometimes referred to as the integration, qualitative, synthesis and quantitative method, multi-methodology, or multi-method (Tashakkori and Teddlie, 2010).

3.4 Strategy of Research

The research strategy is a fairly comprehensive procedure of describing how the researcher will answer the research questions. The researcher should identify the sources of data, state the constraints that inevitably might be faced such as access to the data, time, place, and ethical issues (Thornhill et al., 2003). Moreover, the researcher must determine the approach and data collection tools, as well as the purpose of the data in order to accomplish the ultimate objectives of the study.

3.4.1 Research Method

In order to properly answer the research questions in this study, the researcher conducted a literature review to define the aspects of quality in the service sector and its relationship to customer satisfaction and loyalty. The literature review also served to enrich the researcher on findings of previous empirical studies of the relationship of quality and customer loyalty and satisfaction in the service sector. Based on this review, a survey was developed and conducted. The survey contained demographic items, quality dimensions item, and items relied on the customer satisfaction and loyalty as outlined by SERVQUAL Tool. The following flow chart (Figure 3.1) outlines the steps of data collection and analysis adopted in this research.
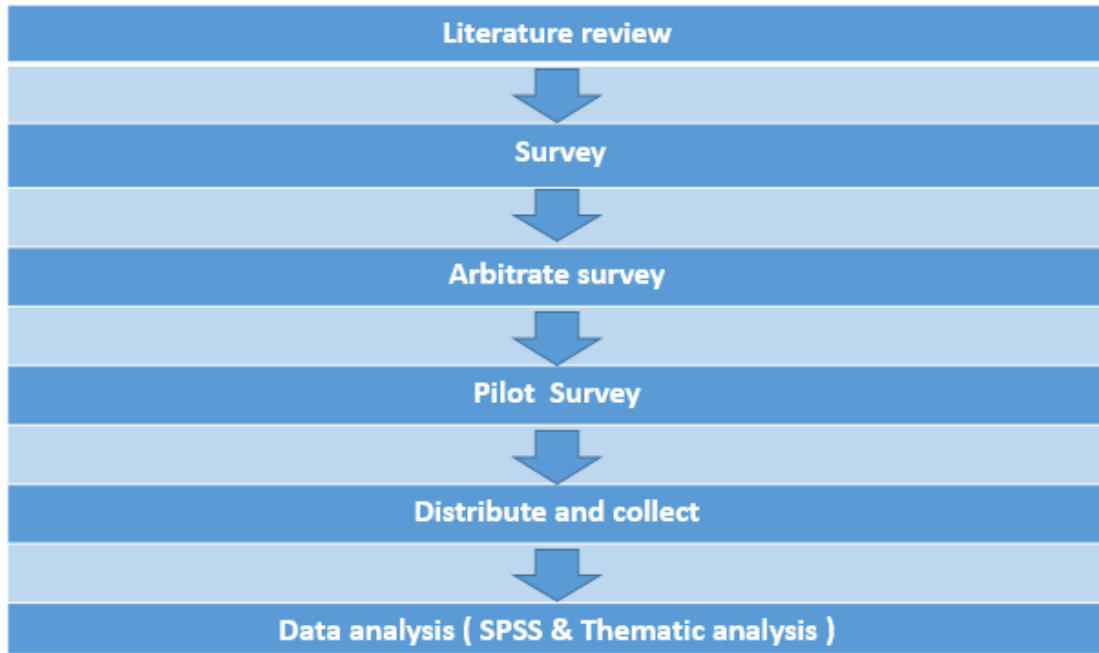
Figure (3.1): Research Methodology

3.5 Research Population and Sample

3.5.1 Research Population

The study population consists of internet Asymmetrical Digital Subscriber Line (ADSL) customers of Bit-Stream Access (BSA) ISP's in Palestine were the estimated number of customers is about 300,000. Customers are the target in order to know the degree of their satisfaction, and loyalty with the quality of Internet services supplied by Palestinian companies. There are eight companies providing the Internet service in West Bank shown in Table 3.1. This study does not include Gaza Strip since the BSA ISP in Gaza offer the service in different model and that PALTEL faced difficulties in getting equipment from the Israeli authority to develop the network infrastructure there.

Table 3.1 Internet service providers in West Bank (2016)

#	Company	Year of foundation	Type	Head quarter Location
1	B net	2010	Private	Ramallah
2	Call u	2008	Private	Ramallah
3	Gemzo	2006	Private	Ramallah
4	Hadara	2005	Public (part of Paltel Group)	Ramallah
5	Mada	2010	Private	Ramallah
6	Super link	2002	Private	Nablus
7	Zaytona	2010	Private	Ramallah
8	Zone	2008	Private	Ramallah

3.5.2 Research Sample

Due to the relatively large size of the study population of about 300000, equation 3.1 was used to calculate the sample size based on a 95% confidence level, a margin of error of 5%, and percentage picking a choice, expressed as decimal (p) of 0.5 to ensure that the research sample is large enough, and therefore as representative as possible. The sample size according to the equation should be 385. The researcher used a random excel technique to choose 700 customers from a data base consisting of about 100,00 ADSL Palestinian subscribers. The list was distributed to 6 trainees in the Marketing Department at Zaytona company who conducted a telephone survey. The telephone survey was chosen as it is a relatively easy and effective collection method for a large number of data, in addition to being a straightforward way of contacting the population of study. This adopted approach gives the researcher the ability to assess the data and get the results, while targeting specific categories.

The mode of instruction was in the Arabic language to ensure that the

answers as accurate as possible and free of ambiguity. In total, 431 questionnaires were subsequently collected after being answered by the respondents. After revising the collected questionnaires, the researcher accepted 403 only as all questions were answered, and rejected the other 28 questionnaire for missing answers.

$$n = \frac{(Z\alpha/2)^2 \times p \times (1-p)}{c^2}$$ Equation (3.1)

n: Sample Size

Z: Z-score

p: percentage picking a choice, expressed as decimal

c: confidence interval, expressed as decimal

α: significance level

3.5.3 Data Collection

The researcher is an owner and the commercial manager in one of the largest ISP BSA companies in Palestine, with more than eleven years of experience in practicing different activities related to quality, customer's satisfaction and customer's loyalty. Such long experience gives the researcher the required knowledge to describe the BSA ISP model in Palestine.

Several studies used only questionnaire in SERVQUAL (Al-Zoubi, 2013; Mosahab et al., 2010; Fraering & Minor, 2013; Naeem et al., 2009).

3.5.3.1 Questionnaire Survey

There are numerous approaches to conduct quantitative research in descriptive research that includes observational studies, developmental designs, correlation, and survey research (Williams, 2007). Specifically, for survey as a research technique, the researcher can use close-ended instrument or open-ended items to describe phenomena by taking a sample of the population (Williams, 2007).

The questionnaire is a very important tool of scientific undertaking. It is quick and inexpensive. It involves systematic collection of information and data in an organized manner from the study sample. Typically, the survey questionnaire is designed to achieve a specific objective by asking groups or chains of closed-ended questions. The questionnaire then allows the respondents to choose an answer from a range of options presented to them (Kramer, 1991). Generally, the questionnaire has three distinctive characteristics. First, it is used in quantitative terms to describe a given aspects of a certain population. Second, the data obtained is "subjective" as collected without any influence from the researcher and the outcome can be generalized to the whole population. Third, the survey questionnaire can be made in several ways including; telephone, face-to-face, mail, or through the Internet using Web applications.

Questions should have a positive or a negative formulation, i.e., they should not be a combination of both directions. For example, the use of the word I prefer to deal with the company, or I do not prefer to deal with the company. All question must be fixed. (Wright & Marsden , 2009).

Also questions must be as follows:

1. Understandable and clear and therefore do not bear multiple interpretations due to possible misunderstanding by the respondents which might lead to incorrect responses.

2. The questions should be brief so as not to lead to the refusal of the respondents to answer the questionnaire or to provide a fast and misleading answers.

3. Each question should provide enough options to enable the respondents to express different opinions in minutes.

4. Use kind words and regulation manners to positively affect the feelings of others, in order to encourage them to cooperate and respond in the mobilization of the questionnaire.

5. The survey questions should be coherent and the relationship between them and the subject of the research is very clear.

6. The question should not be embarrassing in order not to discourage the participant to provide ambitious answer.

7. Stay away from complex questions as this may lead to confusion by the respondent.

3.6 Questionnaire Developments

The questionnaire was developed based on previous studies which dealt with the dimensions of service quality and customer satisfaction and loyalty. Certain changes and modifications were made in order to adapt the questionnaire to the conditions of this research. The study relied on the

following references tabulated in Table 3.2 for the creation of the study

questionnaire (Table 3.2):

Table (3.2): The questionnaire references

Empathy	
1) Employees in the Internet Service Provider understand particular needs of their customers	(Olgun et al, 2013)
2) Employees in the Internet Service Provider dedicate enough personal attention to customers.	(Olgun et al, 2013) (Arshad, 2014)
3) The Internet service Provider company leaves an impression that what is best for a customer is always the company's priority	(Olgun et al, 2013) (Arshad, 2014)
4) The services of the Internet service Provider company are available at the appropriate time for all categories of customers and subscribers	Prepared by researcher
5) The company gives personal attention to its subscribers	Prepared by researcher
Reliability	
1) The Internet Service Provider company provides its services without making mistakes	(Olgun et al, 2013)
2) Promises given to customers are being met within agreed time frame	(Olgun et al, 2013)(Arshad, 2014)
3) Employees in the Internet Service Provider company show sincere efforts to solve customers' problems	(Olgun et al, 2013)
4) Company service provide reliable information and free mistakes.	(El-Kiki & Lawrence, 2013)
5) The company services provider staff is committed to providing services by the agreed upon deadlines.	Prepared by researcher
Responsiveness	
1) Employees in the Internet Service Provider company provide fast service to customers	(Olgun et al, 2013)(Arshad, 2014)
2) Employees in the Internet Service	(Olgun et al, 2013)

Provider company are ready to assist clients at any moment	
3) Employees in the Internet Service Provider company provide customers with all necessary information	(Olgun et al, 2013)(Arshad, 2014)
4) Company services are available all the time	(El-Kiki & Lawrence, 2013) (Arshad, 2014)
Tangibility	
1) The Internet Service Provider company uses modern equipment	(Olgun et al, 2013)
2) Employees in the Internet Service Provider company have a professional appearance	(Olgun et al, 2013)
3) Interior of the Internet Service Provider company is attractive	(Olgun et al, 2013)
4) Internet Service Provider company are visually appealing and easy to understand	(Olgun et al, 2013)
Assurance	
1) Employee behavior raises customer's confidence	(Olgun et al, 2013)
2) Employees in the Internet Service Provider company are polite to their customers	(Olgun et al, 2013)
3) Employees in the Internet Service Provider company have necessary knowledge to answer all questions raised by customers	(Olgun et al, 2013)
4) Company staff is friendly and aware of every service item	(Arshad, 2014)
Satisfaction	
1) Based on your experience with the company, overall you are very satisfied with the Internet Service Provider company	(Olgun et al, 2013)
2) Complete service offer by Internet Service Provider company is significantly above what is expected	(Olgun et al, 2013)
3) Packages offered by company satisfy my needs	(El-Kiki & Lawrence, 2013) (Almossawi, 2012)
Loyalty	

1) I would like to continue to deal with the Internet service Provider company that I am currently dealing with	(Olgun et al, 2013)(Arshad, 2014)
2) I recommend my close environment to deal with the Internet Service Provider company that I deal with	(Olgun et al, 2013)
3) I will continue to use this company's service even if they slightly increase prices	(Arshad, 2014)

Based on previous studies, service quality could be one of the determinants of satisfaction and loyalty of customer. Due to the fact that services are not concrete, it is difficult to measure the level of quality compared to the physical characteristics of tangible goods. However, the consumer service, like consumer goods, has within it a set of characteristics which form the basis for comparison of alternative services, and/or implicit perceptions in the mind of the buyer, which cannot be expressed explicitly.

The five dimensions of service quality used in the study are:

Empathy of Service Provider: means to express empathy, care, and personal attention to the customer. The most important factors that measure the empathy index is employee understanding the particular needs of the customer and providing enough personal attention.

Reliability: is considered to be the most important dimension in determining the customer's perception of the quality of services. This concept is linked to the capabilities of the service provider, which means that the service is provided in a timely and proper performance. On this basis, identified phrases that reflect the reliability index are: Provider Company which provides its services without making mistakes and on time and provides reliable information.

Responsiveness: means the service is provided at the right time and the right place, the existence of a desire to help and provide customers with the service with immediate effect, paying attention to their problems and the ability to service immediately. It also means ability to answer customer questions, paying attention to their problems, and having the ability to provide the service with high flexibility. Suggested phrases which can reflect the response index is: employees are prepared to support clients at any moment with all necessary information.

Tangibility: This component refers to the appearance of individual providers of services and also the appearance of physical facilities, tools and equipment used in providing the service. The most important aspects that can measure the index is the attractiveness of interior design of the ISP provider and its use of the most modern equipment

Assurance: The staff of ISP need to exert maximum possible effort in order to win more customers by providing the required services as requested by the customers so as to create the necessary psychological comfort in the mind and heart of the customer. Service institutions should as much as possible try to get close to customers and listen to their aspirations and to respond to their needs in order to gain his trust and loyalty, allowing them to strengthen their competitive position and to ensure the continuity and growth.

In addition to the previous five variables the study used the following two variables:

Customer satisfaction: It is a feeling of happiness as a result of satisfying

human needs or desires. Satisfaction in business services and consumer satisfaction is derived from the utility through the consumption of a commodity or benefit from the service. It can be defined as the degree of awareness of the effectiveness of the organization in providing products or services that meet the expectations and needs. Achieving satisfaction leads to customer loyalty.

Customer loyalty: It is a measure of customer repurchase intensions (customer's commitment to continue to deal with the company that they are currently dealing with), and positive word of mouth (customers recommendations to others for dealing with the same company that they are currently dealing with).

The survey questionnaires were translated from various references into Arabic in order to facilitate better understanding by the respondents. The questionnaire consisted of three sections. The first included demographic information about the respondents. All questions have fixed-alternative answers. The second section consisted of three portions. The first portion dealt with service quality dimensions. Service quality was measured by asking nineteen questions for the five dimensions (empathy, reliability, responsiveness, tangibility and assurance) on five level Likert-scale ranging from "strongly agree" to "strongly disagree". The second portion consisted of customer satisfaction measurement. Customer satisfaction was measured by asking three questions using a five-point Likert-scale. The third portion consisted of customer loyalty assessment. Customer loyalty was evaluated by asking three questions, using a five-point Likert-scale.

Finally, the third section consists of two parts. The first part is related to which dimensions of service quality is most satisfying to the customer. In the second part the respondents were requested to provide general observations and comments based on their experience with their respective ISP

3.7 Data Analysis Framework

The data collected was evaluated using a Statistical Package for the Social Sciences (SPSS) with its statistical methods that include Cronbach's α to test reliability of the dat.

Reliability refers to the consistency of a test; its ability to produce similar results each time it is used (Majmudar, and Gibbs, 2011). According to Majmudar and Gibbs, (2011) reliability requires both objectivity and consistency. In this study, the researcher secured the reliability of the survey by checking its consistency through the use of the Cronbach Alpha Test for all study variables (empathy, reliability, responsiveness, tangibility, assurance, satisfaction, and loyalty) in each item.

•   Means, standard deviations, and frequency distributions were calculated by descriptive statistics.

•   Relative degree level (shown in Table 3.3) was determined for each study variable as suggested by Sekaran and Bougie, (2010), and is defined in equation 3.2 (see also Table 3.3):

$$\text{Interval class of degree level} = \frac{\text{Maximum class - Minimum class}}{\text{Number of levels}} \quad (3.2)$$

• Testing the study hypotheses was done by simple and multiple regression tests, and ANOVA test.

Table (3.3): Degree level

Degree level	Mean score
Low degree	1.00 – 2.33
Medium degree	2.34 – 3.66
High degree	3.67 – 5.00

Depending on Likert-scale that applied on the answers of the respondent's attitude toward each statement of study variables, the researcher used the following scale: Strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1). Degree level was classified based on arithmetic mean in three categories low, medium, and high. In order to get the relative degree level, the researcher applied equation 3.1, where the low degree lies between 1.00 -2.33, medium degree lies between 2.34 -3.66, and high degree lies between 3.67 -5.00.

3.8   Validity

Test validity refers to a construct measuring what the test was intended to measure (Majmudar, 2011). To maintain test validity in this study, several measures were taken including:

- The survey was constructed based on a thorough review of the literature and under supervision of a professor.
- An expert translated the survey from English into Arabic as the native language of the respondents was Arabic

- The survey was sent to several arbitrators who are specialists in the service sector and quality to refine the questions further and modifications to the instrument were made as required.

- A quantitative approach was adopted for data collection to ensure more representative results.

3.9   Reliability

Reliability refers to the consistency of a test; its ability to produce similar results each time it is used (Majmudar, 2011). According to Majmudar (2011) reliability requires both objectivity and consistency. In this study, the researcher secured the reliability of the survey by checking its consistency through use of the Cronbach Alpha Test for all levels (empathy, reliability, responsiveness, tangibility, assurance, satisfaction, and loyalty) in each item.

To test the reliability of questionnaire, Cranach's alpha test was conducted, at a minimum acceptable level (Alpha ≥ 0.60) as suggested by Sekaran, (2003). As shown in Table 3.4, the overall Cronbach Alpha is 0.915. Whereas, the variable Tangibility exhibited the highest Cronbach Alpha value of 0.753 while the variable Assurance had the lowest level of Cronbach Alpha (α) at 0.667. These results are acceptable levels as suggested by Sekaran, (2003).

Table (3.4): Cronbach's Alpha Test

Variables	Cronbach's Alpha	No. of Items
Empathy	0.722	5
Reliability	0.691	5
Responsiveness	0.739	4
Tangibility	0.753	4
Assurance	0.667	4
Overall Quality Dimensions	0.877	22
Satisfaction	0.844	3
Loyalty	0.782	3
Total	0.915	28

Chapter Four
Results and Discussion

Chapter Four
Results and Discussion

4.1 Overview

This chapter describes the results of the statistical analysis of the collected data. First, the descriptive sample of the demographic variables is presented. Then, the results of data analysis are presented including a description of the means and standard deviations for the questions of the study and then the degree level of each items. Finally, the outcome of simple and multiple linear regression analysis used to test hypotheses are outlined. Also this chapter discusses the results that related to quality dimensions, customer satisfaction, and customer loyalty in the internet sector in Palestine. In addition to detailed discussion of the impact of each individual quality dimension in SERQUAL model on the customer satisfaction and customer loyalty.

4.2 Descriptive Analysis

The questionnaire tool that was used in the research contained demographic factors in the first section which include gender, age, education level, position, monthly income, ISP, and geographic area. Table 4.1 show the respondents' frequency and percentage according to each category of the demographic factors.

Table 4.1: Demographic Information of the respondents

N	Demographic Variables	Categorization	Frequency	Percent
1	**Gender**	Males	317	78.7
		Females	86	21.3
		Total	403	100%
2	**Age**	Less than 20 years	4	1.0
		21 – 30 Years	165	40.9
		31 – 40 years	125	31.0
		41 – 50 Years	84	20.8
		51 – 60 Years	23	5.7
		Above 60 Years	2	0.5
		Total	403	100%
3	**Education Level**	Less than Secondary School	45	11.2
		Secondary School	113	28.0
		Diploma	54	13.4
		BSc	174	43.2
		High Education	17	4.2
		Total	403	100%
4	**Position**	Student	16	4.0
		Retired	5	1.2
		Public Employee	67	16.6
		Self-employed	96	23.8
		House Wife	41	10.2
		Businessman	163	40.4
		Unemployed	15	3.7
		Total	403	100%
5	**Income**	Less than 1450	9	2.2
		1450 – 3000	123	30.5
		3001 – 5000	86	21.3
		Above 5000	52	12.9
		No Income	72	17.9

N	Demographic Variables	Categorization	Frequency	Percent
		Do not wish to disclose	61	15.1
		Total	403	100%
6	**Internet Service provider company**	B net	22	5.5
		Gemzo	11	2.7
		Hadara	122	30.3
		Zone	10	2.5
		Zaytona	65	16.1
		Super link	38	9.4
		Call U	49	12.2
		Mada	68	16.9
		Other ISP	18	4.5
		Total	403	100%
7	**Governorate**	Jenin	43	10.7
		Tulkarem	17	4.2
		Qalqilia	13	3.2
		Tubas	6	1.5
		Nablus	74	18.4
		Salfit	13	3.2
		Ramallah and Al-Bireh	95	23.6
		Jerusalem	9	2.2
		Jericho	3	0.7
		Bethlehem	62	15.4
		Hebron	68	16.9
		Total	403	100.0%

Based on the demographic results presented in Table 4.1, it is clear that almost 79% of the respondents are males, while the female respondents were about 21%. This result is expected because in a male-dominated society such as Palestine the decision maker for purchasing the Internet service is the male. Moreover and while conducting the survey, when a

female answered the phone call, the trainees usually asked to speak with the father, brother or husband.

In addition, less than 1 % of the study sample is under twenty years old, while participants with an age of 61 years and older represent less than 0.5% of the total sample. The majority of the respondents can be considered to be of the young and middle age group (21 to 40 years) with a total of more than 71%. The rest of the respondents are aged between 41 and 60 years.

With regards to the education level, the sample shows that most of the respondents (about 47% of the sample) hold a university degree (BSc and higher).   Respondents with secondary school education or possess a college diploma represent about 41.5% of the study sample. Only 11.2% of the study sample have "Less than Secondary School" education.

Students, retired, and the unemployed represent about 9% of the sample population, while housewives account for almost 10%. Public employees account for about 16.6% of the participants, while about 64.2% of the respondents described themselves as self-employed or as businessmen. With regards to the income level of respondents, the results of study sample show that 20.1% are either without income or earn less than the minimum wage of 1450 NIS per month. Participants with an income of between 1450 and 5000 NIS (low and middle income) represent about 51.8% of the study sample, while 12.9% of respondents are high income-earners with a monthly income of over 5000 NIS. Finally, almost 15.1% of the respondents did not wish to disclose their income level.

Internet Service providers respondents are deal with more than nine companies. The study shows that most of respondents are dealing with Hadara (30.3%), while, few respondents deal with Zone and Gemzo (2.5% and 2.7%, respectively). The respondents dealing with B net are 5.5%, Mada, Call U, and Zaytona clients are 16.9%, 12.2%, 16.1% of the study sample, respectively. Super Link customers account for 9.4% of the respondents. Finally, other ISP account for 4.5%. Based on the researcher's experience and knowledge of the market, the above result are more or less consistent with the market share of the various ISP companies. For example, the largest share in the market is for HADARA which is part of Paltel group, and the second market share is for Mada, while Zaytona, Call you, and Super link compete for third market share.

Finally, the respondents are from different geographic areas. Most of respondents are from Ramallah and Al-Bireh (23.6%). While respondents from Jericho and Tubas represent the lowest proportions of 0.7% and 1.5%, respectively. The respondents from Jenin are 10.7%. While those from Tulkarem are 4.2%. Respondents from Qalqilia, Nablus and Salfit are 3.2, 18.4 and 3.2% respectively. Finally, respondents from Jerusalem, Bethlehem and Hebron are 2.2%, 15.4%, and 16.9%, respectively. The above data appear to be somewhat in line with the actual distribution of the internet lines in West Bank as Ramallah, Hebron, and Nablus have the highest internet subscribers.

4.3 Descriptive Analysis of Study Variables

4.2.1 Empathy

The arithmetic mean, standard deviation, item rank, and degree level were calculated and are shown in Table 4.2 in descending order.

Table (4.2): Mean, SD, rank, and level of Empathy.

N	Statement	Mean	SD	Item Rank	Degree level
1	Employees in the Internet Service Provider understand particular needs of their customers	3.82	0.80	1	High
4	The services of the Internet service Provider company are available at the appropriate time for all categories of customers and subscribers	3.73	0.79	2	High
2	Employees in the Internet Service Provider dedicate enough personal attention to customers.	3.63	0.85	3	Medium
3	The Internet service Provider company leaves an impression that what is best for a customer is always the company's priority	3.46	0.87	4	Medium
5	The company takes personal attention for its subscribers.	3.37	0.83	5	Medium
	Overall	3.69	0.57		High

Table (4.2) clarifies the degree level of empathy, where the arithmetic mean ranges from 3.37 to 3.82 as compared with the overall arithmetic mean of 3.69. It is noticed that the highest mean is for the item "Employees in the Internet Service Provider understand particular needs of their customers" with a value of 3.82 where the standard deviation is 0.80. While the lowest arithmetic mean is for the item "The company takes personal attention for its subscribers" with an average of 3.37 and a

standard deviation of 0.83. Overall, empathy dimension averaged 3.69 (high) with a corresponding standard deviation of 0.57, which means that there is a homogeneity between respondents' answers

4.2.2 Reliability

The arithmetic mean, standard deviation, item rank and degree level for the reliability component are shown in Table 4.3 in descending order.

Table (4.3): Mean, SD, rank, and level of Reliability.

N	Statement	Mean	SD	Item rank	Degree level
3	Employees in the Internet Service Provider company show sincere efforts to solve customers' problems	3.77	0.73	1	High
5	The company services provider staff is committed to providing services agreed deadlines.	3.69	0.76	2	High
4	Company service provide reliable information and mistakes free.	3.67	0.67	3	High
2	Promises given to customers are being met within agreed time frame	3.63	0.84	4	Medium
1	The Internet Service Provider company provides its services without making mistakes	3.29	0.97	5	Medium
	Overall	3.61	0.54		Medium

Table 4.3 shows the degree level of reliability, where the arithmetic mean ranges from 3.29 - 3.77 as compared with the overall value of 3.61. Clearly, the highest mean is for the statement "Employees in the Internet Service Provider company show sincere efforts to solve customers' problems" with a value of 3.77 and a corresponding standard deviation of 0.73. While the lowest arithmetic mean was is for the item "The Internet Service Provider Company provides its services without making mistakes"

which averaged 3.29 with a standard deviation of 0.97. In general, the calculated means of the Reliability dimension have a medium degree level and averaged 3.61 with a standard deviation of 0.54.

4.2.3 Responsiveness

The researcher used the arithmetic mean, standard deviation, item rank, and degree level for the Responsiveness factor are shown in Table 4.4 in descending order.

Table (4.4): Mean, SD, rank, and level of Responsiveness.

N	Statement	Mean	SD	Item rank	Degree level
4	Company services are available all the time	3. 71	0.75	1	High
3	Employees in the Internet Service Provider company provide customers with all necessary information	3.59	0.84	2	Medium
2	Employees in the Internet Service Provider company are ready to assist clients at any moment	3.56	0.86	3	Medium
1	Employees in the Internet Service Provider company provide fast service to customers	3.40	0.97	4	Medium
	Overall	3.57	0.64		Medium

Table 4.4 clarifies the degree level of responsiveness, where the arithmetic mean varies between 3.40 and 3.71 compared with the overall value of 3.57. The highest mean of 3.71 is associated with the item "Company services are available all the time" while its standard deviation is 0.75. In the meantime, the lowest arithmetic mean is for the item "Employees in the Internet Service Provider Company provide fast service to customers" with a value of 3.40 and standard deviation 0.97. The overall mean of the

responsive factor is calculated at 3.57 and its standard deviation is 0.64.The degree level of this dimension can be considered to be a medium.

4.2.4 Tangibility

The calculated arithmetic mean, standard deviation, item rank, and degree level of the Tenability dimension are presented in Table 4.5 in descending order.

Table (4.5): Mean, SD, rank, and level of Tangibility.

N	Statement	Mean	SD	Item rank	Degree level
4	Internet Service Provider company are visually appealing and easy to understand	3.73	0.69	1	High
2	Employees in the Internet Service Provider company have a professional appearance	3.68	0.66	2	High
3	Interior of the Internet Service Provider company is attractive	3.59	0.71	3	Medium
1	Internet Service Provider company uses modern equipment	3.53	0.71	4	Medium
	Overall	3.63	0.52		Medium

The arithmetic means of the items related to tangibility are between 3.53 and 3.73, as compared with the overall arithmetic mean of 3.63. We observe that the highest mean is for the item "Internet Service Provider company are visually appealing and easy to understand" with an arithmetic average of 3.73 and standard deviation of 0.69. On the other hand, the lowest arithmetic mean is for the item "Internet Service Provider company uses modern equipment" with average value of 3.53 and standard deviation of 0.71. In general the calculated means have a medium level with an overall average of 3.63 and standard deviation of 0.52.

4.2.5 Assurance

The arithmetic mean, standard deviation, item rank, and degree level are shown in Table 4.6 for the assurance factor in descending order.

Table (4.6): Mean, SD, rank, and level of assurance.

N	Statement	Mean	SD	Item rank	Degree level
2	Employees in the Internet Service Provider company are polite to their customers	4.16	0.56	1	High
1	Employee behavior raises customer's confidence	3.92	0.65	2	High
4	Company staff is friendly and aware of every service item	3.79	0.80	3	High
3	Employees in the Internet Service Provider company have necessary knowledge to answer all questions raised by customers	3.78	0.82	4	High
	Overall	3.91	0.51		High

As the table indicates, the items related to assurance dimension exhibits relatively high arithmetic mean ranging from 3.78 to 4.16 and an average value of 3.91. It is noticed that the best mean is for the item "Employees in the Internet Service Provider Company are polite to their customers" which has an arithmetic mean of 4.16 and a standard deviation of 0.56. While the lowest arithmetic mean is for the item "Employees in the Internet Service Provider company have necessary knowledge to answer all questions raised by customers" with an average of 3.78 and standard deviation of 0.82. In general, these calculated means represent the most positive response by the respondents, as compared with the results presented and discussed thus far.

4.2.6 Customer Satisfaction

The arithmetic mean, standard deviation, item rank and degree level pertaining to Customer Satisfaction are shown in Table 4.7 in descending order.

Table (4.7): Mean, SD, rank, and level of customer satisfaction.

N	Statement	Mean	SD	Item rank	Degree level
1	Based on your experience with the company, overall you are very satisfied with the Internet Service Provider company	3.54	1.02	1	Medium
3	Packages offered by company satisfy my needs	3.41	0.93	2	Medium
2	Complete service offer by Internet Service Provider company is significantly above what is expected	3.19	1.02	3	Medium
	Overall	3.38	0.86		Medium

Table 4.7 Suggests that customer satisfaction scores the lowest when compared to the quality dimensions in terms of the means, where the arithmetic mean ranges from 3.19 to 3.54, with an overall arithmetic value of 3.47. The highest mean is for the item "Based on your experience with the company, overall you are very satisfied with the Internet Service Provider Company with arithmetic mean of 3.54 and a standard deviation of 1.02. While the lowest arithmetic mean is for the item "Complete service offer by Internet Service Provider company is significantly above what is expected" with an average of 3.19 and standard deviation of 1.02. In general, these calculated means have medium degree level with an average of 3.47 and a standard deviation of 0.79.

4.2.7 Loyalty

The arithmetic mean, standard deviation, item rank, and degree level of the loyalty dimension are shown in Table 4.8 in descending order.

Table (4.8): Mean, SD, rank, and level of loyalty.

N	Statement	Mean	SD	Item rank	Degree level
1	I would like to continue to deal with the Internet service Provider company that I am currently dealing with	3.69	0.89	1	High
3	I will continue to use this company's service even if they slightly the increase prices	3.67	0.88	2	High
2	I recommend my close environment to deal with the Internet Service Provider company that I deal with	3.06	1.07	3	Medium
	Overall	3.47	0.79		Medium

The arithmetic mean ranges between 3.06 and 3.69 and averaged of 3.47. The highest mean of 3.69 is related to the item "I would like to continue to deal with the Internet service Provider Company that I am currently dealing with". Its standard deviation is 0.89. While the lowest arithmetic mean is for the item "I recommend my close environment to deal with the Internet Service Provider company that I deal with" with an average value of 3.06 and standard deviation of 1.07. In general the average mean is medium in terms of the degree level with an average of 3.47 and a standard deviation of 0.79.

4.2.8 Summary of the Descriptive Analysis of the Study Variables

Table 4.9 shows the means and standard deviations for the five dimensions of service quality, customer satisfaction, and loyalty. In general, service

quality is medium with arithmetic mean of 3.66 and standard deviation of 0.41. Three of the dimensions of service quality exhibited a medium degree level, while assurance and empathy dimension can be considered to have high degree level with arithmetic mean of 3.91 and 3.69, respectively. Also, customer satisfaction and loyalty had a medium degree level with arithmetic means of 3.38 and 3.47 and standard deviations of 0.86 and 0.79, respectively.

Table (4.9): Summary of the descriptive analysis of study variables.

N	Variables	Mean	SD	Degree level
1	Empathy	3.69	0.57	High
2	Reliability	3.61	0.54	Medium
3	Responsiveness	3.57	0.64	Medium
4	Tangibility	3.63	0.52	Medium
5	Assurance	3.91	0.51	High
	All Quality Dimension	3.66	0.41	Medium
6	Customer Satisfaction	3.38	0.86	Medium
7	Loyalty	3.47	0.79	Medium

In light of the results of descriptive statistics, where the level of Customer satisfaction and loyalty in service sector in Palestine were medium at 3.38, 3.47, respectively, we can establish that ISPs were not that successful in gaining customer satisfaction and loyalty. This latter result agrees with the findings of (Angelova & Zekiri, 2011) which measured customer satisfaction with service quality in the Macedonian mobile telecommunication industry, and concluded that customers were not satisfied with service.

4.3 Ranking Quality Service Dimension

Table (4.10) shows the ranking of the five dimension based on the respondents choice when they were asked of the dimensions of service was best.

Table (4.10): Ranking the quality dimension.

Dimension	Percent	Frequency
Empathy (Empathy and support of the company's staff when customer facing problems)	12.9	52
Reliability (Ability to perform the service with the confidence and accuracy required)	23.8	96
Responsiveness (The desire to help subscribers and provide service quickly and reliably)	41.7	168
Tangibility (The overall appearance of the service provider, the appearance of the equipment, the materials used and the personnel)	6.2	25
Assurance (Knowledge of employees and their ability to transfer trust)	15.4	62
Total	100%	403

Table (4.10) shows that the 41.7% of respondents agree that employee responsiveness to be the best for customer. The same respondents give tangibility the lowest ranking of 6.2%.

4.4 Summary of the Respondents' Comments

Just over 18% of the respondents (sample population) made general comments and observations regarding their ISP's. The comments were either very positive, very negative, or moderate and constructive (majority). Their input can be categorized as follows:

Truthfulness and honesty of the ISP are not up to standard. The issues raised are related to: offers made by the ISP in relation to what is delivered, speed of the internet, availability of the ISP staff to directly respond to clients inquiries, competent of the service staff, internet interruptions, and fair use policy.

Monthly subscription fees are considered to be high by these respondents, and that there is a variation in these fees from one customer to another. It is suggested that the fees be related to the quality of internet service being offered and to the bundle, among other factors. The billing system adopted by the ISP does not give sufficient time for the subscriber to pay the bill, and that late payment should not lead to disconnection of the service.

There is a room to improve the quality of the internet service and the speed, although some respondents expressed their satisfaction with these two aspects as they feel that the internet service is improving.

Availability and coverage of the internet to be everywhere, not just at home, and appointment of ISP agents in certain areas for easy access by the customers.

A final issue raised by several respondents is not directly related to the ISP's, but rather to PALTEL. It concerns certain aspects including: the high line costs charged to the ISP's by PALTEL and therefore the high prices demanded by the ISP's, and the distribution of lines by PALTEL not being fair which has an impact on the quality of the service and the costs.

4.5 Research Hypotheses Tests

4.5.1 Hypotheses (1)

H1: There is a significant effect of service quality (Empathy, Reliability, Responsiveness, Tangibility and Assurance) on customer satisfaction in ISP Sector in Palestine at significance level 95%.

To test this hypotheses, the researcher used multiple regression analysis to determine how significant if any, the impact of the dimensions of service quality on customer satisfaction. The results are summarized in Tables 4.12(a-d).

Multiple linear regression is a mathematical equation that expresses the relationship between two variables and is used to estimate past values and to predict future values. It is also a regression of the dependent variable (Y) on two or more independent variables X_1, X_2 ... X_K.

Multiple linear regression is not just one method but a set of methods that can be used to determine the relationship between a continuous dependent variable and a number of independent variables that are usually continuous. The linear equation in multiple linear regression is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 \pm e \qquad \text{Equation (4.1)}$$

The scatter plot in Figure 4.1 shows satisfactory linear correlations between quality dimensions and customer satisfaction.
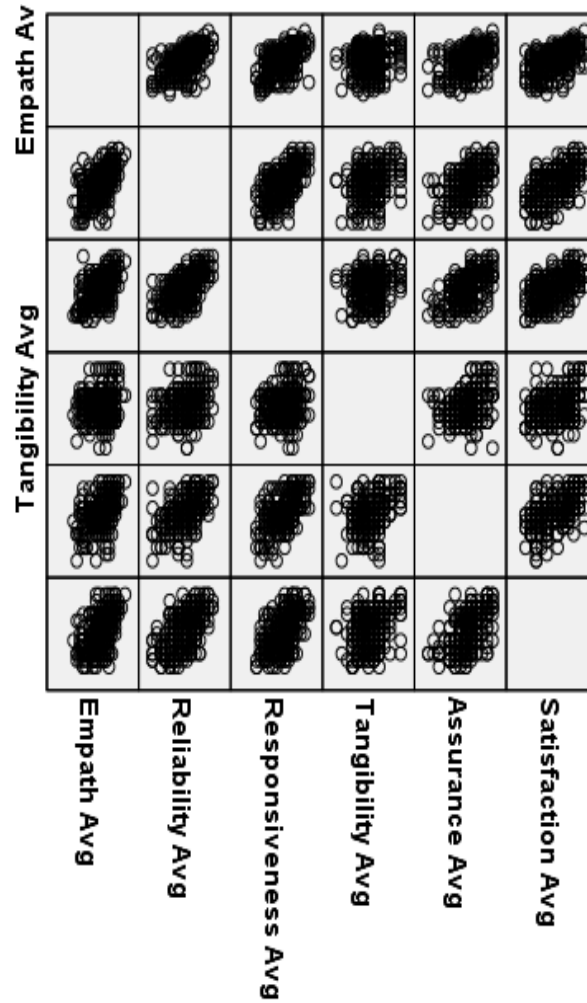
Figure (4.1): Scatter plot for H1

Residual statistics and normal probability plot are presented in Table 4.11 and Figure 4.2 respectively.

Table (4.11) Residual statistics for H1

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.0724	5.0736	3.3805	.61959	403
Residual	-1.69515	1.78709	.00000	.60265	403
Std. Predicted Value	-3.725	2.733	.000	1.000	403
Std. Residual	-2.795	2.947	.000	.994	403

a. Dependent Variable: Satisfaction Avg
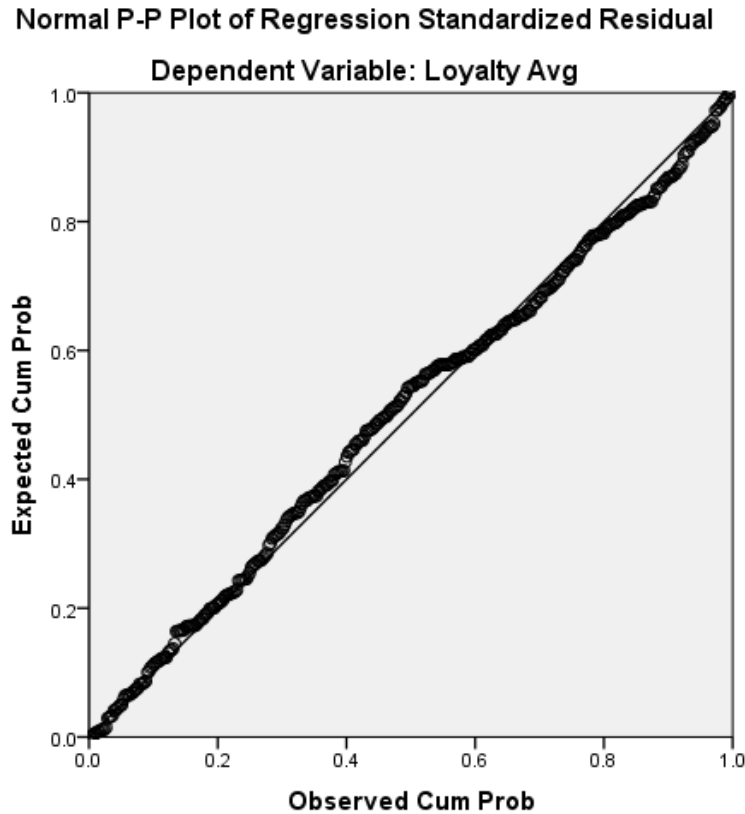
Figure (4.2): Normal probability plot for H1

Statistics will also be used to determine the overall validity of the model, by determining R which is the simple correlation coefficient, and which measures the strength of the relationship between two or more variables, the limiting coefficient (R^2), which is used to determine the explanatory power of the estimated model, and adjusted R^2 to adjust for the number of explanatory terms in a model relative to the number of data points (Higgins, 2005).

The result in Table 4.12a indicate that serious problem with collinearity is not exist, were the tolerances are far from 0, the largest value of variance inflation factor (VIF) is 2.071, the eigenvalues are far from 0, and the condition indices are values lower than 30.

Table (4.12a): Collinearity test of the impact of quality on satisfaction.

Model	Collinearity Statistics		Eigenvalue	Condition Index
	Tolerance	VIF		
1 (Constant)			5.937	1
Empathy	0.552	1.811	0.025	15.317
Reliability	0.501	1.995	0.012	22.497
Responsiveness	0.483	2.071	0.010	24.702
Tangibility	0.880	1.137	0.009	26.012
Assurance	0.605	1.652	0.007	29.196

Depending on our result we can find out multiple regression test to find the equations of service quality dimensions on customer satisfaction, we observe that there is a variation among the various dimensions of quality service in terms of their impact on customer satisfaction, where the p-value of all dimensions of service quality are lower than 0.05. The R was 0.717 at level $\alpha \le 0.05$. Whereas the (R^2) was (0.514). This means that the 0.717 of customer satisfaction changeability results from the changeability in quality service dimensions as shown in Table 4.12b.

Table (4.12b): Summary result of the impact of quality on satisfaction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.717[a]	0.514	0.508	0.60643

a. Predictors: (Constant), Assurance, Tangibility, Empathy, Reliability, Responsiveness

The findings of ANOVA test showed that there is a significant effect of service quality (Empathy, Reliability, Responsiveness, Tangibility and Assurance) on customer satisfaction in ISP Sector in Palestine, where ($F_{calculated} = 83.927$) is higher than ($F_{tabulated} = 2.21$) at significance level (0.000). That means that we can accept (H1-hypothesis) which states that there is a significant effect of service quality (Empathy, Reliability,

Responsiveness, Tangibility and Assurance) on customer satisfaction in ISP Sector in Palestine. The results tabulated in Table 4.12c and Table 4.12d.

Table (4.12c): ANOVAᵃ result of the impact of quality on satisfaction

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	154.325	5	30.865	83.927	0.000ᵇ
Residual	146.001	397	0.368		
Total	300.326	402			

a. Dependent Variable: Satisfaction

Table (4.12d): Regression test of the impact of quality on satisfaction

Model	Unstandardized Coefficients β	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	-1.838	0.295		-6.233	0.000
Empathy	0.332	0.071	0.219	4.641	0.000
Reliability	0.308	0.080	0.191	3.861	0.000
Responsiveness	0.371	0.068	0.275	5.464	0.000
Tangibility	0.195	0.062	0.118	3.171	0.002
Assurance	0.225	0.077	0.132	2.934	0.004

a. Dependent Variable: Satisfaction

The findings of the previous table show that Beta coefficient of quality dimension responsiveness is the highest at 0.371 and thus the most influential dimension on customer satisfaction. On the other hand the Beta coefficient of quality dimension Tangibility were the lowest at 0.195 as shown in Figure 4.3. The following equation shows the effect of each dimension on service quality on customer satisfaction.

$$Y=\beta_0 +\beta_1X_1+ \beta_2X_2+ \beta_3X_3+ \beta_4X_4+ \beta_5X_5 \pm e \qquad \text{Equation (4.1)}$$

Satisfaction = -1.838 + 0.332(Empathy) + 0.308(Reliability) + 0.371(Responsiveness) + 0.195(Tangibility) + 0.225 (Assurance)

As (β) means that the increase of one unit in (quality service) variables

concerns will increase customer satisfaction value by one

There is significant impact of service quality (Empathy, Reliability, Responsiveness, Tangibility and Assurance) on customer satisfaction at ($\alpha = 0.05$) level of confidence.
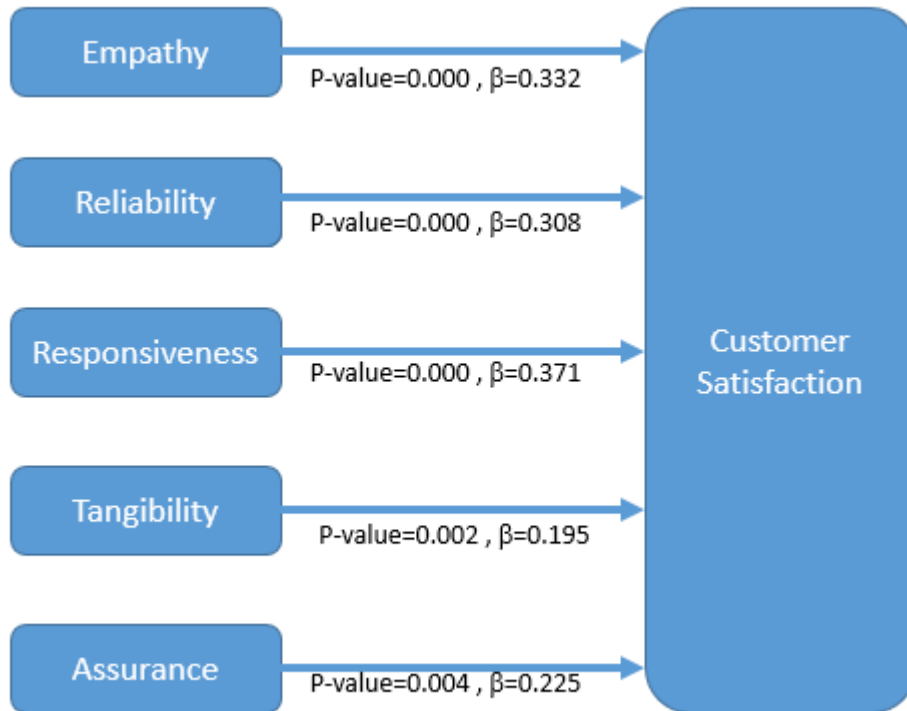
Figure (4.3): Conceptual model for the result of quality service dimensions effect on customer satisfaction.

The study suggests that all five SERVQUAL dimensions (empathy, responsiveness, reliability, assurance and tangibility) are important pre-requisites of satisfaction, which is in agreement with the study of Olgun et all, (2013) where they examined the relationship between service quality and customer satisfaction, and concluded that there is an effect of quality dimensions (empathy, responsiveness, tangibility, and assurance) on

customers' satisfaction, and that empathy has the strongest influence on customer satisfaction.

However, the current study has certain findings which differ from those of Olgun et al, (2013) who conducted their research on supermarket chain and concluded that empathy, responsiveness, tangibility, and assurance have substantial influence on client satisfaction, and empathy being the most effective predictor of satisfaction. In contrast, our results indicate that all five quality dimensions positively contribute to client satisfaction with responsiveness being the strongest influential dimension. The differences might be related to differences in the nature of the business sectors investigated, among others factor.

4.5.2 Hypothesis (2)

H2: There is a significant effect of customer satisfaction on customer loyalty in ISP Sector in Palestine.

To test this hypothesis, simple regression analysis was used to determine how significant the impact of customer satisfaction on customer loyalty as shown in Tables (4.14) a, b, and c.

The simple regression is similar to the multiple regression. the major difference being that the dependent variable (Y) is expressed in terms of only one independent variable (X) in order to evaluate the relationship between them (Higgins, 2005).

The scatter plot in Figure 4.4 shows somewhat linear correlation between customer satisfaction and loyalty.
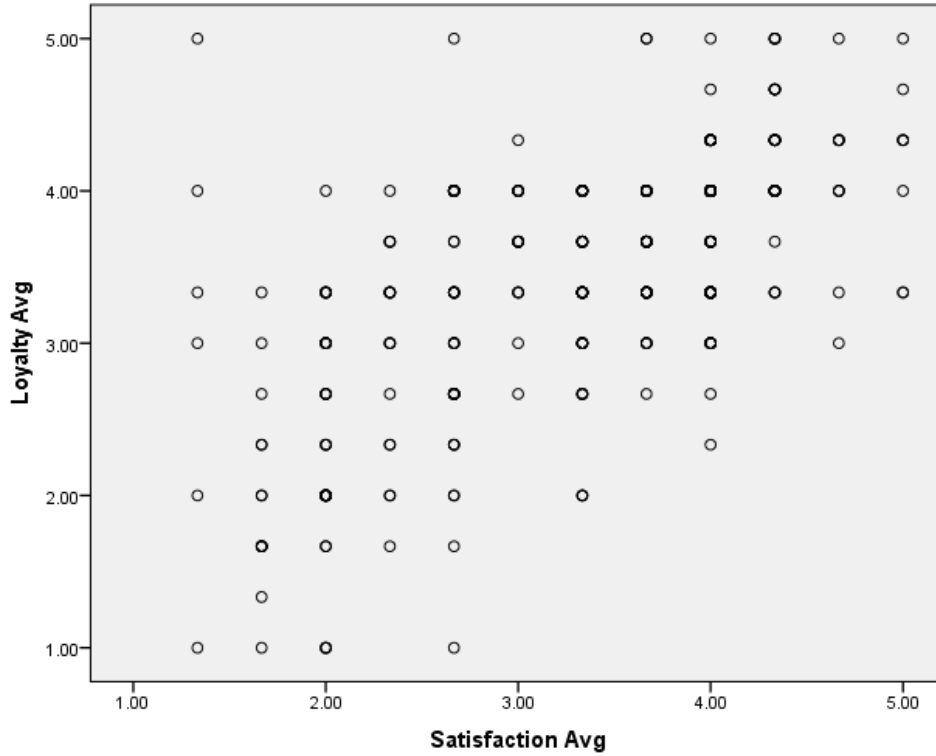
Figure (4.4): Scatter plot for H2

Residual statistics and normal probability plot are presented in Table 4.13

and Figure 4.5 respectively.

Table (4.13) Residual statistics for H2

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.2456	4.4398	3.4706	.51725	403
Residual	-2.04347	2.75444	.00000	.60027	403
Std. Predicted Value	-2.368	1.874	.000	1.000	403
Std. Residual	-3.400	4.583	.000	.999	403

a. Dependent Variable: Loyalty Avg
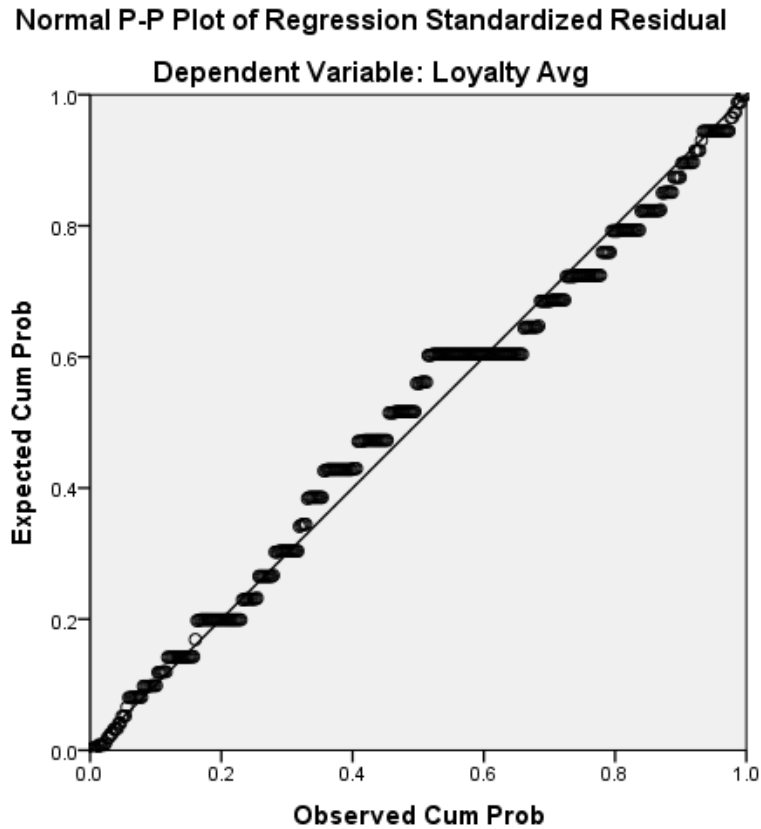
Figure (4.5): Normal probability plot for H2

Table 4.12a shows (R, R^2, and Adjusted R^2).

Table (4.14a): Summary^b of regression test applied on hypothesis H2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.653^a	.426	.425	.60102	2.172

a. Predictors: (Constant), Satisfaction
b. Dependent Variable: Loyalty

The finding in the previous table show that there is positive relationship between customer satisfaction and customer loyalty where (R=0.653).

To find out if there is a significant effect of customer satisfaction on customer loyalty in ISP Sector in Palestine, we apply one way ANOVA test.

Table (4.14b): Result of ANOVAª test applied on hypothesis H2

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	107.553	1	107.553	297.747	0.000ᵇ
	Residual	144.850	401	0.361		
	Total	252.403	402			

a. Dependent Variable: Loyalty
b. Predictors: (Constant), Satisfaction

The findings presented in the previous table show that there is a significant effect of customer satisfaction on customer loyalty in ISP Sector in Palestine, where ($F_{calculated}$ = 297.747) is higher than ($F_{tabulated}$ = 3.84) at significance level of almost zero. This means that H2-Hypothesis can be accepted (H2-hypothesis states that there is a significant effect of customer satisfaction on customer loyalty in ISP Sector in Palestine).

In order find out the equations for the effect of customer satisfaction on customer loyalty we applied the coefficients' values.

Table 4.14c shows these result.

Table (4.14c): Regression test between satisfaction and loyalty

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	1.448	0.121		11.964	0.000		
Satisfaction	0.598	0.035	0.653	17.255	0.000	1.000	1.000

a. Dependent Variable: Loyalty

The finding of the previous tables show that if customer satisfactions increases by one unit, customer loyalty will increase by 0.598. Simple linear regression equation can be taken from the following equation:

$Y = \beta_0 + \beta X_1 \pm e$ 　　　　　　　　Equation 4.2

Loyalty = 1.448 + 0.598(satisfaction)

 We conclude that:

> There is significant impact of (customer satisfaction) on customer loyalty at ($\alpha \leq 0.05$) level of confidence.
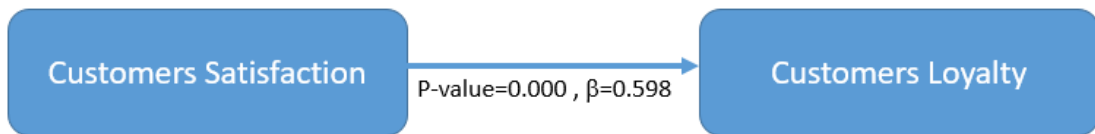
Figure (4.6): Conceptual model for the result of customer satisfaction effect on customer loyalty

The research result showed that customers' satisfaction have statistically significant effect on customer loyalty in internet sector. This result is consistent with that's of Sivadas and Baker-Prewitt (2000), and Olgun et all, (2013), who examined the relationship between client satisfaction and loyalty, and concluded that satisfaction influenced customer loyalty.

4.5.3 Hypothesis (3)

H3: There is a significant effect of service quality dimensions on customer loyalty through customer satisfaction in ISP Sector in Palestine.

The study used multiple regression test to find if there is a significant effect of service quality dimensions on customer loyalty through customer satisfaction in ISP Sector in Palestine. First the dimensions of service quality were considered as independent variables, and the dependent variable was taken to be customer loyalty to find out if there is significant effect of service quality dimensions on customer loyalty in ISP Sector in

Palestine. Tables (4.13) a-c show these result. Scatter plot in Figure 4.7 shows satisfactory linear correlations between quality dimensions and customer loyalty.
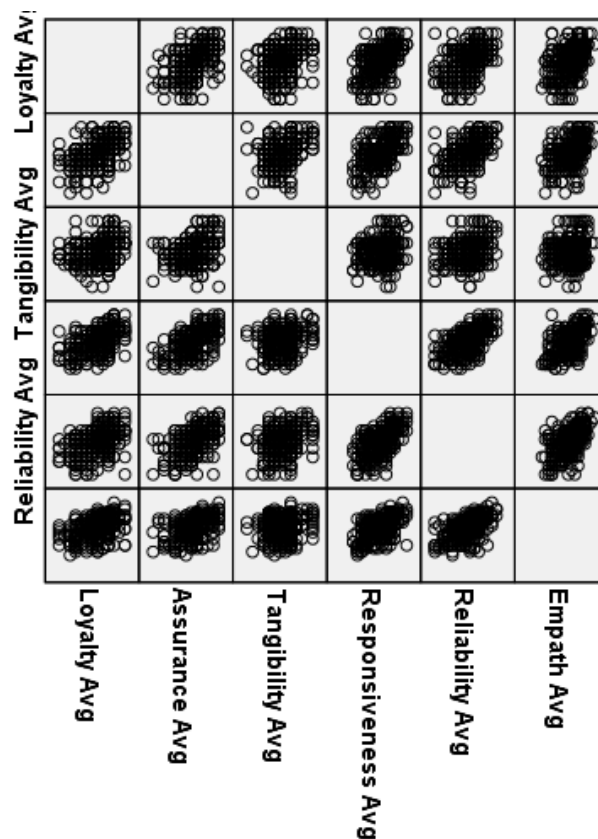
Figure (4.7): Scatter plot for H3

Residual statistics and normal probability plot are presented in Table 4.15 and Figure 4.8 respectively.

Table (4.15) Residual statistics for H3

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.7267	4.7512	3.4706	.47250	403
Residual	-2.44262	2.12969	.00000	.63609	403
Std. Predicted Value	-3.691	2.710	.000	1.000	403
Std. Residual	-3.816	3.327	.000	.994	403

a. Dependent Variable: Loyalty Avg

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Loyalty Avg
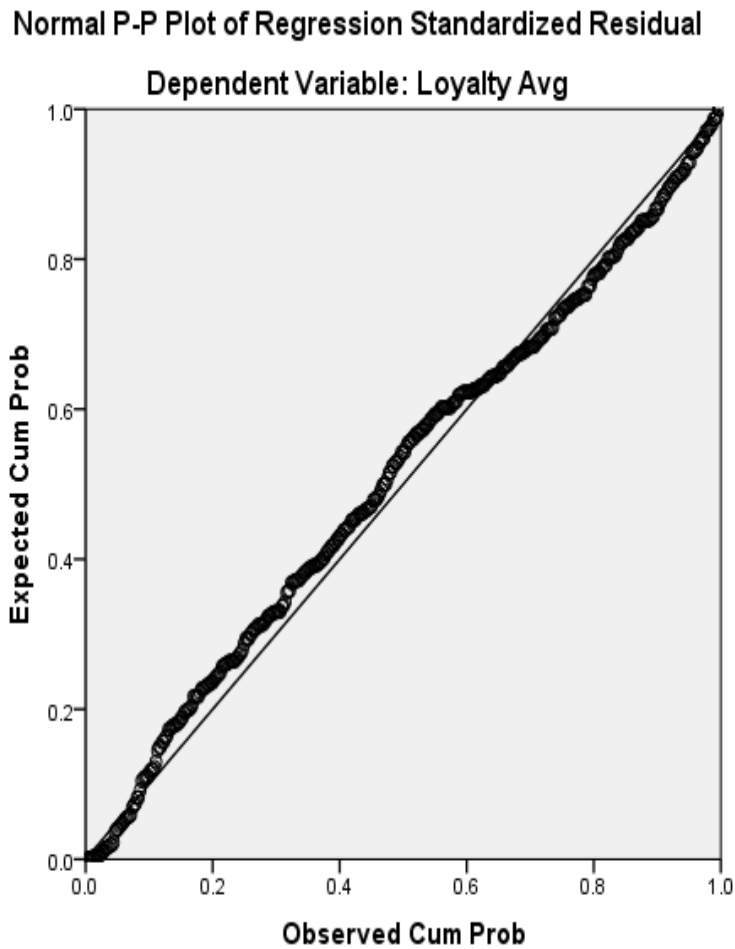
Figure (4.8): Normal probability plot for H3

H3A: there is significant effect of service quality dimensions on customer loyalty in ISP Sector in Palestine.

Table (4.16a): Model Summary applied on hypothesis H3a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.596[a]	0.356	0.347	0.64008

Predictors: (Constant), Assurance , Tangibility , Empathy, Reliability, Responsiveness

The findings of the previous table show that there is a relationship between quality service dimensions and customer loyalty where (R=0.596). That means that we can apply one way ANOVA test to find out the significant

effect of the independent variable (quality service dimensions) on the dependant variable (customer loyalty). Table 4.16b show this result.

Table (4.16b): ANOVAª test applied on hypothesis H3a

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	89.749	5	17.950	43.811	0.000[b]
Residual	162.654	397	0.410		
Total	252.403	402			

a. Dependent Variable: Loyalty

The findings of the previous table show that there is significant statistical effect of quality service dimension on customer loyalty where ($F_{calculated}$ = 43.811) which is higher than ($F_{tabulated}$) at significant level (p-value = 0.000) which is lower that the significant level (0.05). Therefore, we accept the hypothesis which states that there is significant effect of service quality dimensions on customer loyalty in ISP Sector in Palestine.

To find out our predicted equations that shows how much quality service dimensions effect on customer loyalty we applied the coefficient test. Table 4.16c summarizes these result.

Table (4.16c): Regression test of the impact of quality on loyalty

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	-0.450	0.311		-1.445	0.149
Empathy	0.243	0.075	0.175	3.219	0.001
Reliability	0.110	0.084	0.074	1.304	0.193
Responsiveness	0.351	0.072	0.284	4.903	0.000
Tangibility	0.138	0.065	0.092	2.130	0.034
Assurance	0.229	0.081	0.146	2.820	0.005

a. dependent Variable: Loyalty

The findings of the previous table show that there is significant statistical

effect of quality service dimensions (empathy, responsiveness, tangibility, and assurance) on customer satisfaction, while the reliability dimension showed no significant statistical effect where p-value= 0.193 is high in comparison to the assumed significant level of 0.05.

Therefore, we accept that there is significant effect of empathy, responsiveness, tangibility, and assurance on customer loyalty in Internet Sector in Palestine. So we used these four quality service dimensions as the effective quality service dimensions on customer loyalty, Table 4.16d shows the coefficients of these four dimensions on customer loyalty.

Table (4.16d): Modified regression test of the impact of Quality on loyalty.

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-.399	0.309		-1.290	0.198
Empathy	0.274	0.072	0.197	3.827	0.000
Responsiveness	0.380	0.068	0.307	5.556	0.000
Tangibility	0.152	0.064	0.100	2.364	0.019
Assurance	0.250	0.079	0.160	3.144	0.002

According to these result the study proposes a model as summary of these finding, as shown in Figure 4.9.
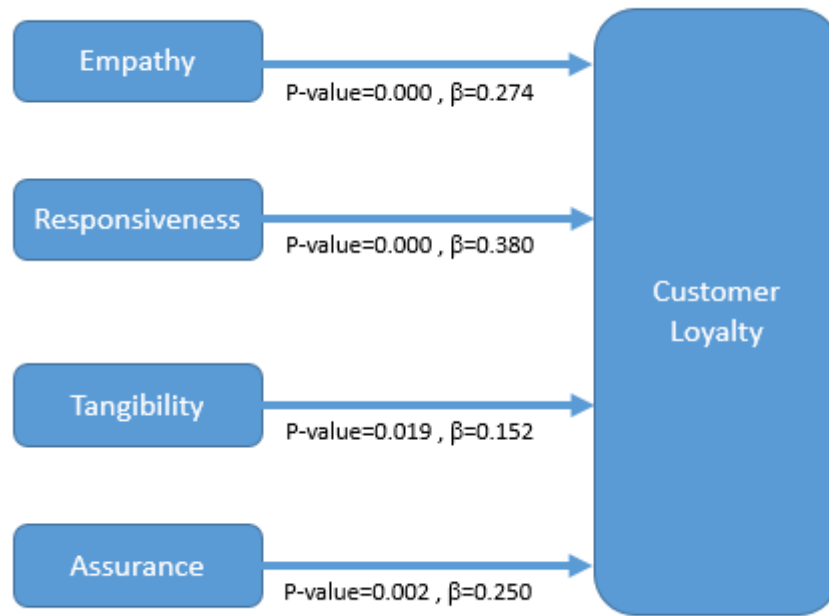
Figure (4.9) Conceptual model for the result of quality effect on customer loyalty

Secondly, to find out if customer satisfaction plays as mediating role between the accepted four quality dimensions (empathy, responsiveness, tangibility, and assurance) on customer loyalty in ISP in Palestine. We applied multiple regression test between the four quality service dimensions and customer satisfaction as independent variable to find out their effect on customer loyalty. The following table shows these result.

Table (4.17a): Summary of quality dimensions effect on loyalty

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.680[a]	0.463	0.456	0.58450
a. Predictors: (Constant), Satisfaction, Tangibility, Assurance, Empathy, Responsiveness			

The Findings in the previous table show that there is a relationship between all four dimensions of quality service and customer satisfaction and customer loyalty in Internet sector in Palestine.

So, by applying one way ANOVA test on hypothesis to find out if customer satisfaction variable plays as mediator effect of the accepted through the accepted four quality dimensions (empathy, responsiveness, tangibility, and assurance) on customer loyalty in ISP in Palestine. The following table shows this result

Table (4.17b): ANOVA test for the effect of empathy, responsiveness, tangibility, assurance, and satisfaction on loyalty

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	116.769	5	23.354	68.357	0.000^b
Residual	135.633	397	0.342		
Total	252.403	402			

a. Dependent Variable: Loyalty
b. Predictors: (Constant), Satisfaction, Tangibility, Assurance, Empathy, Responsiveness

The finding of the previous table show that there is significant statistical effect of the independent variables (empathy, responsiveness, tangibility, assurance, and satisfaction) on customer loyalty in ISP in Palestine.

To find out the statistical effect of each independent variable (empathy, responsiveness, tangibility, assurance, and satisfaction) on customer loyalty in ISP in Palestine we applied multi regression test to find out the significance of each variables on customer loyalty. Table 4.17c show this result.

Table (4.17c): Regression test for the effect of empathy, responsiveness, tangibility, assurance, and satisfaction on loyalty

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.326	0.293		1.113	0.266
Empathy	0.095	0.068	0.068	1.387	0.166
Responsiveness	0.187	.066	0.151	2.837	0.005
Tangibility	0.052	0.060	0.035	.876	0.382
Assurance	0.128	0.074	0.082	1.735	0.084
Satisfaction	.428	.047	0.467	9.007	0.000

By comparing the between p-values in Table 4.16d and Table 4.17c, where p-values of Empathy, Tangibility, and Assurance in the absence of customer satisfaction variable as independent factor were (0.00, 0.019, 0.02, respectively), with those when customer satisfaction is included as a variable (0.166, 0.382, 0.084), it can be concluded that customer satisfaction plays as a mediator between quality dimensions (Empathy Tangibility, and Assurance) and customer loyalty. In addition, there seem to be a direct effect of quality dimensions (Empathy Tangibility, and Assurance) on customer loyalty.

By comparing P-value and the coefficient of quality dimension (responsiveness) in Tables (4.16d) and table (4.17c) we find that the responsiveness dimension maintained its effect on customer loyalty with or without using customer satisfaction variable as independent factor. This means that there is a direct effect of quality dimension responsiveness on customer loyalty, and an indirect effect of the same dimension on customer loyalty.

The previous results indicate that customer satisfaction plays as a mediator

role in the effect of quality service dimensions (empathy, responsiveness, tangibility, and assurance) on customer loyalty in internet sector in Palestine.

There is significant impact of four quality service dimensions (empathy, responsiveness, tangibility, and assurance) on customer loyalty through customer satisfaction at ($\alpha = 0.05$) level of confidence, while there is no significant impact of quality dimension (reliability) on customer loyalty through customer satisfaction at ($\alpha = 0.05$) level of confidence
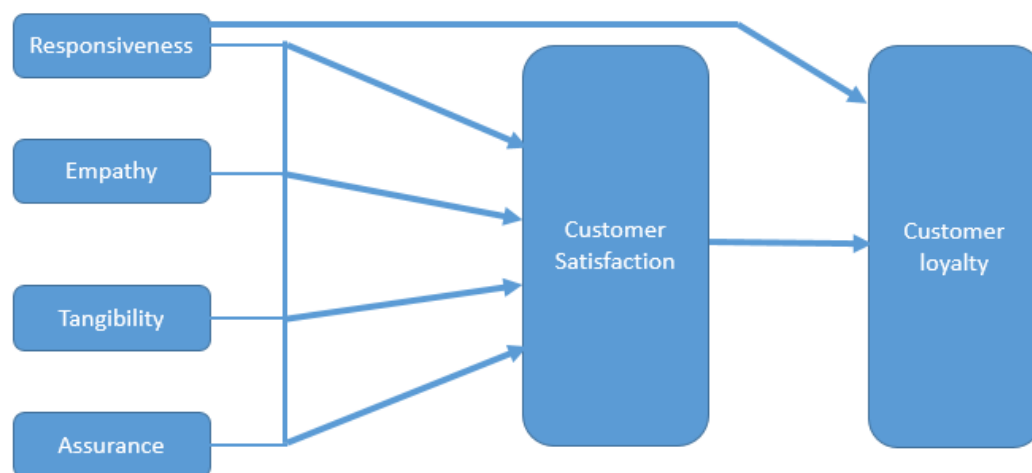
Figure (4.10) proposed conceptual model

The conceptual model for the result of quality service dimensions (empathy, responsiveness, tangibility, and assurance) that effect on customer loyalty through customer satisfaction shown in Figure 4.10.

This study suggested that responsiveness, assurance, tangibility and empathy had significance statistical effect on client loyalty through customer satisfaction, while reliability dimension had no statistically

significance effect. The Beta coefficients for empathy, reliability, responsiveness, tangibility, and assurance are 0.332, 0.308, 0.371, 0.195 and 0.225, respectively. These results indicate that the effect of responsiveness dimension on consumer satisfaction is stronger than the effects of the other dimensions.

Based on these result, the proposed model showed that quality service dimensions (Empathy, responsiveness, tangibility, and assurance) effect customer loyalty through customer satisfaction after neglecting the non-statistical (reliability), as presented in Figure (4.4).

4.6 Chapter Summary

The study clearly indicates that the five quality service dimensions (empathy, reliability, responsiveness, tangibility, and assurance) have a significance statistical effect on customer satisfaction, and that concludes that customer satisfaction had significant statistical effect on customer loyalty. However, the study seems to suggest that customer satisfaction plays as mediator role in the influence of four quality dimensions on customer loyalty, where reliability did not have a significant effect. The final result showed that quality service dimensions (empathy, tangibility, and assurance) effect customer loyalty through customer satisfaction without directly affecting customer loyalty, while responsiveness dimensions effect directly and indirectly customer loyalty through customer satisfaction.

It is evident that management in the future must pay specific consideration to these important concerns as they represent some of the most important conditions for creating lasting relationships with clients. Businesses should have a thorough understanding of their customers' needs in order to gain long-term customer loyalty.

The significance of this research in not related to only ISPs in Palestine, rather to any service company that strives to establish and maintain long term relationships with its customers.

Chapter Five
Conclusions and Recommendations

Chapter Five
Conclusions and Recommendations

5.1 Overview

This chapter summarizes the overall findings of the research and conclusions drawn from the results. The chapter also outlines recommendations based on research findings and the proposed model which addresses the dimensions of service quality and their impact on customer satisfaction and loyalty. The chapter closes with limitations of the present research and recommendations for future studies.

5.2   Conclusions

The aim of this study is to analyze the effect of service quality effects on customer satisfaction and loyalty in internet sector in Palestine. The results of this study addressed this objective and answered the research questions.

The study suggested that the level of service quality is accepable in general, where assurance scored the highest level among all quality dimensions and the second one is empathy.

The study found that service quality with all its dimension (Empathy, Reliability, Responsiveness, Tangibility and Assurance) had a good influence on customer satisfaction. Also, this study revealed that customer satisfaction positively affects customer loyalty. And as such, this study confirmed that customer satisfaction mediates the relation between customer satisfaction and customer loyalty. This result supports the main hypotheses (H1,H2,H3).

Regarding the effect of quality service on customer satisfaction, the results indicated that the effect of the responsiveness dimension on consumer satisfaction is stronger than the effects of the other dimensions in the iternet sector in Palestine.

Regarding the effect of quality service on customer loyality, the study found that there is significant statistical effect of service quality on customer satisfaction. This result is consistent with the findings of Mosahab et al, 2010 and Amina et al, 2012, who argued that perceived service quality is significantly and positively related to consumer loyalty.The result of Al-Zoubi, 2013, are also in agreement with the present finding where he found that there was a significant effect of SERVQUAL on customer loyalty in the Jordanian Telecom market.

However, the present study has some different findings with respect to Al-Zoubi, 2013, who found that the three dimensions of SERVQUAL, empathy, reliability, and responsiveness were significant in affecting customer loyalty, while the others two dimension tangibility and assurance did not affect customer loyalty. In contrast, we come up with the finding that the four quality dimensions (responsiveness, assurance, tangibility and empathy) had significance statistical effect on customer loyalty, while reliability dimension had no statistical significance effect on customer loyalty.

On the other hand, the study results show that customer satisfaction plays an important mediating, in the relation between quality service and customer loyalty.

In general, the results show that there is a a significant effect of service quality on customer satisfaction (R^2 = 0.514). Also, descriptive analysis of study variables, gives indication that the means of all dimension of quality service are medium. This suggests that there is a need to improve level of service quality in order to meet customer needs and wants.

Empathy had a positive effect on customer satisfaction. Employees in the Internet Service Provider understand particular needs of their customers, and the services of the ISP's are available at the appropriate time for all categories of customers and subscribers. While, the ISP's need to improve employee skills in order to pay more personal attention to their subscribers, and to ensure that they leave an impression that what is best for a customer is always the company's priority.

With regards to reliability, this study indicates that reliability in ISP had positively effect on customer satisfaction. Employees makes efforts to solve customers' problems, the ISP staff is committed to providing services within agreed deadlines, and the ISP provide reliable information free mistakes. Occasionally though, employee providing's service make mistakes.

Responsiveness positively affects customer satisfaction as the study suggests. This result indicates that service offered by the ISP's are available all time. However, service needs more attention to be implemented faster, employees in the ISP needs more attention to provide customers with all necessary information, and to be ready to assist clients at any moment

Tangibility also plays a role in customer satisfaction. The study indicates that employees have a professional appearance and companies are visually appealing and easy to understand. However customers believe that ISP's do not have a modern equipment and the interior design for ISP is not attractive.

Regarding assurance, the study revealed that it positively affects customer satisfaction. In general, assurance is the best dimension, as it scored the highest level in service quality. This indicates that Employee behavior raises customer's confidence, and that they are friendly and aware of every service item. Also, employees are polite to their customers and have the necessary knowledge to answer all questions raised by customers.

Despite assurance dimension receiving the highest score in quality service variables, customers believe that the best quality service dimension is responsiveness. That is employees have the desire to help subscribers and to provide service quickly and reliably. Customers see the tangibility dimension as less important than other dimensions. This indicates that overall appearance of the service provider, the appearance of the equipment, the materials used, and the personnel are less important for customers.

Descriptive analysis of the study variables (customer satisfaction and loyalty) indicates that customers are moderately satisfied with the service provided by ISP companies (satisfaction level is medium). Also loyalty is affected by satisfaction and received the same level. In general, this study support the existence of a relationship between quality service and

customer loyalty in ISP in Palestine.

5.3 Implications

The findings of this study have managerial and technical implications for enhancing customer loyalty through the various quality dimensions, as described below.

5.3.1 Managerial Implications:

In order to effectively deploy strategies that foster customer loyalty in an internet sector, ISPs directors should focus on the continuous improvement of service quality and must be sensitive to all factors that drive value perceptions when customers compare the service delivered by various ISPs.

Findings from this study may be helpful for ISP practitioners to better understand the sources of customer perceived service quality, as well as customer behavior. The ISP management needs to view and think from customers' perspectives so that the management understands customers' expectations.

The ISP management should delegate authorities and facilitate decision making to its employee and agents to be more effective in promoting high-quality services for its customers. In addition, it must adopt scheduled procedure for periodically measuring and testing customer satisfaction and loyalty. Doing so may help the ISP to stay more flexible and responsive to changing customer requirements.

And the director should continuously comparing its service with the

competitor in terms of service quality, and remain aware of new developments in order to obtain competitive advantage.

5.3.2   Technical Implications:

Focusing on the findings of this research, responsiveness, assurance, and empathy having the highest importance on promoting customer loyalty, the ISP manger should seek to improve on them by implementing certain actions in three categories:

A. *Improving the staff technical competency:*

1. Ensuring that all services are provided effectively and promptly all the time for all categories of customers. This can be accomplished through adopting procedure and guidelines, and providing continuous training for the staff

2. Continuously make sure that the ISP staff is friendly and aware of every service item, polite to their customers, raises customers confidence, and have the necessary knowledge to answer all questions raised by customers.

3. Building emotional connections with customers could be beneficial in order to better understand their needs.

4. The ISP may need to improve their methods of communications and interactions with customers to show that the company dedicates enough personal attention and that its priority is what is in the best for its customers.

5. Providing quality improvement activities for ISP agents and

partners with the objective of strengthening the relationships with customers.

6. Also, the ISP should always obtain feedback from its existing customers and more importantly from lost subscribers.

B. *Office technology and infrastructure:*

Management must ensure that the company obtain up todate technical resources that enable it to deliver the service in best way.

The ISP should consciously develop and improve office technology, such as customer relationship management software (CRM), billing and accounting system, mobile applications, interactive voice response (IVR), website user control panel portal and social networks.

Also the ISP Must have the abilities to create infrastructure, guidelines and technology that foster collaboration and decision making within the ISP, which may ultimately influence their effectiveness.

C. *Equipment and new markets:*

The ISP should constantly develop, improve, and acquire the most advanced equipment in order to meet the requirement of the various stakeholders (subscribers, PALTEL and MTIT), in particular the ever increasing customers internet bandwidth requirements, among others.

The ISP may consider expanding their markets to include modern and emerging services such as internet protocol television (IPTV).

5.4 Recommendations

ISP companies, should be aware of the importance of service quality on the customers, which could lead to better customer loyalty.

Companies should improve the level of service quality in order to meet customer needs and wants.

The companies need to develop employees in order to pay high level of personal attention for their subscribers.

Companies should focus on improving skills of employee to avoid making mistakes, while providing the service.

Although customers indicated that services are available throughout the day, management should take the necessary measures in order to provide the service faster.

Company management should provide employees modern equipment and tools in order to provide fast service with accurate information.

Companies should provide training courses in quality management and customer service for employees in order to enhance the quality culture for staff.

5.5 Limitation

Results of this research study present several limitations. The first of these is a lack of substantial research in service quality in internet sector in Palestine. Although few of researchers and initiatives investigated different aspects of quality in the service sector of Palestine, most discussed hospitals, bank, mobile operators, and education sector.

The second limitation lies in the sample. All the respondents are ISP customers. The study sample did not extend to cover another service sectors.

The third limitation was that the internet service was provided by two parties, the ISP is the first one while PALTEL is the other one, so the service quality is affected by the two parties, In addition, the Israeli obstacles toward telecommunication sector in Palestine such as preventing to launching of 3G and 4G services which include wireless internet, limits to some extent the alternative choices for the customers.

Also, this research is based on the perceptions of respondents about the behavior of their respective companies. Perceptions are never exact, especially in terms of satisfaction.

5.6 Future Research

This study involved a total of seven variable – the five SERVQUAL dimensions and, satisfaction and loyalty in internet sector. Additional research should be undertaken in order to address more variables and different populations' studies, as well different cultures with a larger sample size to have a deeper analysis of customers' expectations. These suggested studies should be supported and funded by the service providers in Palestine.

This study does not consider the roles played by organizational cultures, and other possible internal factors, such as demographic variables. Future research could include such moderating factors. This may help provide

even more insight and clarity regarding the fundamental relationships between various variables.

This study could be extended to other sectors, including industry, trade, etc., in order to examine in more details the relationship between service quality and customer loyalty.

It may be possible to use the role of customer satisfaction as a moderating variable in relation between quality service and customer loyalty. Future studies can take into account customer satisfaction as moderating variable.

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Appendices

Appendix A: Study Questionnaire

استمارة قياس جودة الخدمة المقدمة من مزود الإنترنت في فلسطين ومدى رضا الزبائن عن الخدمة وولائهم للشركة المزودة

عزيزي المشترك / ة

نضع بين أيديكم هذه الاستبانة والتي هي لغرض البحث العلمي الذي يقوم به الباحث لنيل درجة الماجستير في الإدارة الهندسية من جامعة النجاح الوطنية وتهدف هذه الاستبانه لتحديد مدى تفهمكم وآرائكم حول أثر جودة خدمة الإنترنت على ولاء المشتركين للشركة المزودة للخدمة في الضفة الغربية. يتوقع منك أن تختار الإجابة التي تشعر بأنها أقرب اليك. نتائج هذه الاستبيانة سوف تستخدم فقط لأغراض البحث العلمي،

إجابتكم اختيارية وسوف تكون سرية تسخدم فقط لأغراض البحث. بما يخدم مصلحة المشتركين بالدرجة الأولى ، ولتعزيز قدرة الشركة نحو التطوير والابتكار في تقديم خدمات الإنترنت بشكل أفضل ، الوقت المقدر لإكمال هذه الاستبيانة حوالي 5 دقائق

شكرا مقدما" لكم من أجل إعطائنا من وقتكم الثمين للأجابة عن استفساراتنا.

يرجى التأكد أن جميع الأسئلة قد تم الإجابة عليها.

أشرف الضميدي

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استمارة قياس جودة الخدمة المقدمة من مزود الإنترنت في فلسطين ومدى رضا الزبائن عن

الخدمة وولائهم للشركة المزودة

الجزء الأول : معلومملألأ ديمغرافية

1- الجنس

أ) ذكر   ب) أنثى

2- العمر

أ) 20 فأفل   ب) من 21 – 30 سنة   ج) من 31- 40 سنة

د) من 41 – 50 سنة   ه) من 51 _ 60 سنة   و) أكثر من 60

3- المستوى التعليمي

أ) أقل من الثانوية   ب) الثانوية العامة   ج) دبلوم

د) بكالوريوس   ه) دراسات عليا

4- المهنة

ا) طالب   ب) متقاعد   ج) موظف حكومي   د) موظف قطاع خاص

ه) ربة منزل   و) أعمال حرة   ي) بدون عمل

5- ا لدخل :

أ) أقل من 1450 شيكل   ب) من 1450 شيكل -3000 شيكل

ج) من 3001 - 5000 شيكل   د) أكثر من 5000   ه) لايوجد دخل

6-اختر اسم الشركة المزودة لخدمة الإنترنت التي تتعامل معها

بي نت

جمزو

حضارة

زون

زيتونة

سوبرلينك

كول يو

مدى

غير ذلك

7ـ المحافظة :

جنين

طولكرم

قلقيلية

طوباس

نابلس

سلفيت

رام الله

القدس

اريحا

بيت لحم

الخليل

غير موافق بدرجة كبيرة	غير موافق	محايد	موافق	موافق بدرجة كبيرة	العوامـــــــــــــل	
					استمارة قياس جودة الخدمة المقدمة من مزود الإنترنت في فلسطين ومدى رضا الزبائن عن الخدمة وولائهم للشركة المزودة	

غير موافق بدرجة كبيرة	غير موافق	محايد	موافق	موافق بدرجة كبيرة	العوامـــــــــــــل	
					الـ جانب المتعلق بابعاد جودة الخدمات	1
					(ت) أعاطف ودعم موظفي الشركة المزودة عند مواجهة المـشاكل	
					الموظفون في الشركة المزودة لخدمة الإنترنت يتفهمون حاجات الزبائن والمشتركين بالشكل المطلوب	1
					الموظفون في الشركة المزودة لخدمة الإنترنت يقومون بتكريس الاهتمام الشخصي بما فيه الكفاية للمشتركين.	2
					الشركة مزود خدمة الإنترنت تترك انطباعا بأن ما هو أفضل للزبون دائما يكون من الأولويات للشركة	3
					خدمات الشركة المزودة للإنترنت متوفرة في ساعات ملائمة لجميع فئات الزبائن والمشتركين	4
					تولي الشركة المزودة مشتركيها الاهتمام الشخصي	5
					ب) القدرة على أداء الخدب ةمثّة بـا لشكد المطلوب وبالدقة المطلوبة	
					تقدم الشركة المزودة للإنترنت خدماتها بالشكل الصحيح والمطلوب ومن المـرة الأولى دون وقوع أخطاء .	1
					يتم الوفاء بوعود إدارة الشركة الممنوحة للمشتركين خلال الوقت المتفق عليه.	2
					يظهر العاملون في الشركة المزود لخدمة الإنترنت الجهود المخلصة لحل مشاكل المشتركين	3
					تحرص إدارة الشركة على أن تكون سجلات المشتركين خاليه من الأخطاء	4
					يلتزم موظفو الشركة المزودة بتقديم الخدمات بالمواعيد المتفق عليها،	5
					ج) الرغبة في مساعدة المشتركين وتقديم الخدمة بشكل سريع ولائق	

						يوفر العاملون في شركة تزويد الإنترنت خدمة سريعة وحقيقية للزبائن	1
						الموظفون في شركة مزود خدمة الإنترنت على استعداد لمساعدة المشتركين في أي لحظة ودون تباطؤ أو تأخير	2
						الموظفون في الشركة المزودة لخدمة الإنترنت يوفرن للمشتركين المعلومات الضرورية كاقة"لخدمتهم	3
						خدمات الشركة بشكل عام متوفرة في جميع الأوقات	4

د)المظهر العام لمزود الخدمة ومظهر الأجهزة والمعد ات والمواد المستخدمة ومظهر العاملين

						تستخدم الشركة مزود خدمة الإنترنت المعدات والإجهزة الحديثة	1
						العاملون في شركة مزود خدمة الإنترنت لديهم مظهر أنيق وحسن	2
						يكون المظهر العام للشركة المزودة جذاباً، أي أن تكون المباني والديكورات والأثاث تتمتع بمظهر جذاب.	3
						تكون المواد المتعلقة بالخدمة جذابة المظهر ، أي أن تكون المطبوعات الخاصة بالشركة والفواتير ، والمواقع الإلكترونية الخاصة بالشركة، والإعلانات ..الخ، ذات مظهر جذاب	4

هـ)   معرفة الموظفين وقدرتهم على نقل الثقة

						يثير سلوك الموظف ثقة المشترك	1
						العاملون في شركة مزود خدمة الإنترنت مهذبون ولبقون في التعامل مع الزبائن والمشتركين	2
						العاملون في شركة مزود خدمة الإنترنت لديهم المعرفة اللازمة للرد على جميع اسئلة واستفسارات المشتركين	3
						يشعر المشتركون بالأمان في تعاملاتهم مع الشركة المزودة للإنترنت.	4

2-   الجانب المتعلق برضلاللاللا

						بناء" على خبرتك من خلال تعاملك مع مزود الإنترنت ، بشكل عام أنت تشعر برضى تام عن الشركة المزودة لخدمة الإنترنت	1
						الخدمة المقدمة من قبل الشركة المزودة للإنترنت هي خدمة ممتازة و فوق المتوقع	2

					حزمة الخدمات المقدمة من الشركة المزودة للإنترنت ترضي جميع احتياجاتي	3
					الجانب المتعلق بولاء العملاء	**3-**
					أود مواصلة التعامل مع شركة مزود خدمة الإنترنت التي أتعامل معها	1
					أوصي أصدقائي والأشخاص الذين لدي صلة معهم التعامل مع الشركة المزود لخدمة الإنترنت التي أتعامل معها	2
					سوف أستمر في التعامل واستخدام خدمات الشركة حتى لو حدث زيادة في الأسعار بشكل قليل	3

4ـ اختر من بين العبارات الآتية الأمر الذي أعجبك أكثر لدى مزود الخدمة

تعاطف ودعم موظفي الشركة المزودة عند مواجهة المشاكل

القدرة على أداء الخدمة بثقة بالشكل المطلوب وبالدقة المطلوبة

الرغبة في مساعدة المشتركين وتقديم الخدمة بشكل سريع ولائق

المظهر العام لمزود الخدمة ومظهر الأجهزة والمعدات والمواد المستخدمة ومظهر العاملين

معرفة الموظفين وقدرتهم على نقل الثقة

ملحوظات أخرى

شكرا" جزيلا" لكم

Appendix B: SPSS Results

```
GET
  FILE='C:\Users\mass\Desktop\Ashraf_Thesis.sav'.
DATASET NAME DataSet1 WINDOW=FRONT.
DATASET ACTIVATE DataSet1.

SAVE OUTFILE='C:\Users\mass\Desktop\Ashraf_Thesis.sav'
  /COMPRESSED.
COMPUTE Empathy=(EM1+EM2+EM3+EM4+EM5)/5.
EXECUTE.
COMPUTE Reliablity=(RE1+RE2+RE3+RE4+RE5) / 5.
EXECUTE.
COMPUTE Responsiveness=(RS1+RS2+RS3+RS4) / 4.
EXECUTE.
COMPUTE Tangibility=(TA1+TA2+TA3+TA4) / 4.
EXECUTE.
COMPUTE Assurance=(AS1+AS2+AS3+AS4) / 4.
EXECUTE.
COMPUTE Satisfaction=(CL1+CL2+CL3)/3.
EXECUTE.
COMPUTE Loyalty=(CL1+CL2+CL3)/3.
EXECUTE.
DATASET ACTIVATE DataSet1.

SAVE OUTFILE='C:\Users\mass\Desktop\Ashraf_Thesis.sav'
  /COMPRESSED.
FREQUENCIES VARIABLES=G A E O I ISP C
  /ORDER=ANALYSIS.
```

Frequencies

[DataSet1] C:\Users\mass\Desktop\Ashraf_Thesis.sav

Statistics

		Gender	Age	Education	Occupation	Income	internet service provider	Governorate
N	Valid	403	403	403	403	403	403	403
	Missing	0	0	0	0	0	0	0

Frequency Table

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	317	78.7	78.7	78.7

		86	21.3	21.3	100.0
	female				
	Total	403	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 20	4	1.0	1.0	1.0
	21-30	165	40.9	40.9	41.9
	31-40	125	31.0	31.0	73.0
	41-50	84	20.8	20.8	93.8
	51-60	23	5.7	5.7	99.5
	more than 60	2	.5	.5	100.0
	Total	403	100.0	100.0	

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less Than Tawjihi	45	11.2	11.2	11.2
	Tawjihi	113	28.0	28.0	39.2
	Diploma	54	13.4	13.4	52.6
	Bachlor	174	43.2	43.2	95.8
	Higher ?Education	17	4.2	4.2	100.0
	Total	403	100.0	100.0	

Occupation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	student	16	4.0	4.0	4.0
	Retired	5	1.2	1.2	5.2
	Public Employee	67	16.6	16.6	21.8
	Self-Employed	96	23.8	23.8	45.7
	House Wife	41	10.2	10.2	55.8
	Businessman	163	40.4	40.4	96.3
	Unemployed	15	3.7	3.7	100.0
	Total	403	100.0	100.0	

Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1450	9	2.2	2.2	2.2
	1450-3000	123	30.5	30.5	32.8
	3001-5000	86	21.3	21.3	54.1
	Above 5000	52	12.9	12.9	67.0
	No Income	72	17.9	17.9	84.9
	6.00	61	15.1	15.1	100.0
	Total	403	100.0	100.0	

internet service provider

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B net	22	5.5	5.5	5.5
	Gemzo	11	2.7	2.7	8.2
	Hadara	122	30.3	30.3	38.5
	Zone	10	2.5	2.5	40.9
	Zaytona	65	16.1	16.1	57.1
	Super link	38	9.4	9.4	66.5
	Call U	49	12.2	12.2	78.7
	Mada	68	16.9	16.9	95.5
	Other ISP	18	4.5	4.5	100.0
	Total	403	100.0	100.0	

Governorate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Jenin	43	10.7	10.7	10.7
	Tulkarem	17	4.2	4.2	14.9
	Qalqilia	13	3.2	3.2	18.1
	Tubas	6	1.5	1.5	19.6
	Nablus	74	18.4	18.4	38.0
	Salfit	13	3.2	3.2	41.2
	Ramallah and Al-Bireh	95	23.6	23.6	64.8
	Jerusalem	9	2.2	2.2	67.0
	Jericho	3	.7	.7	67.7
	Bethlehem	62	15.4	15.4	83.1
	Hebron	68	16.9	16.9	100.0
	Total	403	100.0	100.0	

```
FREQUENCIES VARIABLES=Empathy Reliablity Responsiveness Tangibility
Assurance Quality Loyalty
```

```
  Satisfaction
/FORMAT=NOTABLE
/STATISTICS=STDDEV MEAN
/ORDER=ANALYSIS.
```

Frequencies

Statistics

		Empath Avg	Reliability Avg	Responsive ness Avg	Tangibility Avg	Assurance Avg	Quality	Loyalty Avg	Satisfaction Avg
N	Valid	403	403	403	403	403	403	403	403
	Missing	0	0	0	0	0	0	0	0
Mean		3.6005	3.6099	3.5670	3.6321	3.9107	3.6640	3.4706	3.3805
Std. Deviation		.56945	.53578	.64128	.52376	.50626	.41122	.79238	.86434

```
FREQUENCIES VARIABLES=BQD
  /ORDER=ANALYSIS.
```

Frequencies

Statistics

Best Qullity Dimension

N	Valid	403
	Missing	0

Best Qullity Dimension

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Empathy	52	12.9	12.9	12.9
	Reliability	96	23.8	23.8	36.7
	Responsivness	168	41.7	41.7	78.4
	Tangibility	25	6.2	6.2	84.6
	Assurance	62	15.4	15.4	100.0
	Total	403	100.0	100.0	

```
RELIABILITY
  /VARIABLES=EM1 EM2 EM3 EM4 EM5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	403	100.0
	Excluded[a]	0	.0
	Total	403	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.722	5

```
RELIABILITY
  /VARIABLES=RE1 RE2 RE3 RE4 RE5
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	403	100.0
	Excluded[a]	0	.0
	Total	403	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.691	5

```
RELIABILITY
  /VARIABLES=RS1 RS2 RS3 RS4
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	403	100.0
	Excluded[a]	0	.0
	Total	403	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.739	4

```
RELIABILITY
  /VARIABLES=TA1 TA2 TA3 TA4
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	403	100.0
	Excluded[a]	0	.0
	Total	403	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.753	4

```
RELIABILITY
  /VARIABLES=AS1 AS2 AS3 AS4
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	403	100.0
	Excluded[a]	0	.0
	Total	403	100.0

a. Listwise deletion based on all variables in the

procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.667	4

```
RELIABILITY
  /VARIABLES=CS1 CS2 CS3
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	403	100.0
	Excluded[a]	0	.0
	Total	403	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.844	3

```
RELIABILITY
  /VARIABLES=CL1 CL2 CL3
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	403	100.0
	Excluded[a]	0	.0
	Total	403	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.782	3

```
RELIABILITY
  /VARIABLES=AS1 AS2 AS3 AS4 EM1 EM2 EM3 EM4 EM5 RE1 RE2 RE3 RE4 RE5
RS1 RS2 RS3 RS4 TA1 TA2 TA3 TA4
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability

Case Processing Summary

		N	%
Cases	Valid	403	100.0
	Excluded^a	0	.0
	Total	403	100.0

a. Listwise deletion based on all variables in the

procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.877	22

```
RELIABILITY
  /VARIABLES=AS1 AS2 AS3 AS4 EM1 EM2 EM3 EM4 EM5 RE1 RE2 RE3 RE4 RE5
RS1 RS2 RS3 RS4 TA1 TA2 TA3
    TA4 CS1 CS2 CS3 CL1 CL2 CL3
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	403	100.0
	Excluded^a	0	.0
	Total	403	100.0

a. Listwise deletion based on all variables in the

procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.915	28

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Satisfaction
  /METHOD=ENTER Empathy Reliablity Responsiveness Tangibility
Assurance.
```

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Assurance Avg, Tangibility Avg, Empath Avg, Reliability Avg, Responsiveness Avg[b]	.	Enter

a. Dependent Variable: Satisfaction Avg

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.717[a]	.514	.508	.60643

a. Predictors: (Constant), Assurance Avg, Tangibility Avg, Empath Avg, Reliability Avg, Responsiveness Avg

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	154.325	5	30.865	83.927	.000[b]
	Residual	146.001	397	.368		
	Total	300.326	402			

a. Dependent Variable: Satisfaction Avg

b. Predictors: (Constant), Assurance Avg, Tangibility Avg, Empath Avg, Reliability Avg, Responsiveness Avg

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.838	.295		-6.233	.000		
	Empath Avg	.332	.071	.219	4.641	.000	.552	1.811
	Reliability Avg	.308	.080	.191	3.861	.000	.501	1.995
	Responsiveness Avg	.371	.068	.275	5.464	.000	.483	2.071
	Tangibility Avg	.195	.062	.118	3.171	.002	.880	1.137
	Assurance Avg	.225	.077	.132	2.934	.004	.605	1.652

a. Dependent Variable: Satisfaction Avg

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	Empath Avg	Reliability Avg	Responsiveness Avg	Tangibility Avg	Assurance Avg
1	1	5.937	1.000	.00	.00	.00	.00	.00	.00
	2	.025	15.317	.04	.07	.01	.15	.34	.00
	3	.012	22.497	.10	.46	.00	.52	.11	.01
	4	.010	24.702	.17	.16	.04	.00	.45	.45
	5	.009	26.012	.03	.16	.92	.17	.03	.00
	6	.007	29.196	.65	.14	.03	.15	.08	.53

a. Dependent Variable: Satisfaction Avg

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Loyalty
  /METHOD=ENTER Satisfaction.
```

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Satisfaction Avg[b]	.	Enter

a. Dependent Variable: Loyalty Avg

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.653[a]	.426	.425	.60102

a. Predictors: (Constant), Satisfaction Avg

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	VIF
1	(Constant)	1.448	.121		11.964	.000		
	Satisfaction Avg	.598	.035	.653	17.255	.000	1.000	1.000

a. Dependent Variable: Loyalty Avg

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	Satisfaction Avg
1	1	1.969	1.000	.02	.02
	2	.031	7.958	.98	.98

a. Dependent Variable: Loyalty Avg

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Loyalty
  /METHOD=ENTER Empathy Reliablity Responsiveness Tangibility
Assurance.
```

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Assurance Avg, Tangibility Avg, Empath Avg, Reliability Avg, Responsiveness Avg[b]	.	Enter

a. Dependent Variable: Loyalty Avg

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.596[a]	.356	.347	.64008

a. Predictors: (Constant), Assurance Avg, Tangibility Avg, Empath Avg, Reliability Avg, Responsiveness Avg

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	89.749	5	17.950	43.811	.000[b]
	Residual	162.654	397	.410		
	Total	252.403	402			

a. Dependent Variable: Loyalty Avg

b. Predictors: (Constant), Assurance Avg, Tangibility Avg, Empath Avg, Reliability Avg, Responsiveness Avg

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.450	.311		-1.445	.149		
	Empath Avg	.243	.075	.175	3.219	.001	.552	1.811
	Reliability Avg	.110	.084	.074	1.304	.193	.501	1.995
	Responsiveness Avg	.351	.072	.284	4.903	.000	.483	2.071
	Tangibility Avg	.138	.065	.092	2.130	.034	.880	1.137
	Assurance Avg	.229	.081	.146	2.820	.005	.605	1.652

a. Dependent Variable: Loyalty Avg

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	Empath Avg	Reliability Avg	Responsiveness Avg	Tangibility Avg	Assurance Avg
1	1	5.937	1.000	.00	.00	.00	.00	.00	.00
	2	.025	15.317	.04	.07	.01	.15	.34	.00
	3	.012	22.497	.10	.46	.00	.52	.11	.01
	4	.010	24.702	.17	.16	.04	.00	.45	.45
	5	.009	26.012	.03	.16	.92	.17	.03	.00
	6	.007	29.196	.65	.14	.03	.15	.08	.53

a. Dependent Variable: Loyalty Avg

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Loyalty
  /METHOD=ENTER Empathy Responsiveness Tangibility Assurance.
```

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Assurance Avg, Tangibility Avg, Empath Avg, Responsiveness Avg^b	.	Enter

a. Dependent Variable: Loyalty Avg

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.594^a	.353	.346	.64065

a. Predictors: (Constant), Assurance Avg, Tangibility Avg, Empath Avg, Responsiveness Avg

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.399	.309		-1.290	.198		
	Empath Avg	.274	.072	.197	3.827	.000	.614	1.629
	Responsiveness Avg	.380	.068	.307	5.556	.000	.532	1.881
	Tangibility Avg	.152	.064	.100	2.364	.019	.902	1.108
	Assurance Avg	.250	.079	.160	3.144	.002	.631	1.585

a. Dependent Variable: Loyalty Avg

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Empath Avg	Responsiveness Avg	Tangibility Avg	Assurance Avg
				Variance Proportions				
1	1	4.947	1.000	.00	.00	.00	.00	.00
	2	.025	14.151	.03	.10	.21	.33	.00
	3	.012	20.541	.11	.53	.54	.11	.01
	4	.010	22.594	.15	.26	.02	.48	.46
	5	.007	26.568	.71	.11	.23	.07	.53

a. Dependent Variable: Loyalty Avg

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Loyalty
  /METHOD=ENTER Empathy Responsiveness Tangibility Assurance
Satisfaction.
```

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Satisfaction Avg, Tangibility Avg, Assurance Avg, Empath Avg, Responsiveness Avg[b]	.	Enter

a. Dependent Variable: Loyalty Avg

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.680[a]	.463	.456	.58450

a. Predictors: (Constant), Satisfaction Avg, Tangibility Avg, Assurance Avg, Empath Avg, Responsiveness Avg

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	116.769	5	23.354	68.357	.000[b]
	Residual	135.633	397	.342		
	Total	252.403	402			

a. Dependent Variable: Loyalty Avg

b. Predictors: (Constant), Satisfaction Avg, Tangibility Avg, Assurance Avg, Empath Avg, Responsiveness Avg

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.326	.293		1.113	.266		
	Empath Avg	.095	.068	.068	1.387	.166	.562	1.780
	Responsiveness Avg	.187	.066	.151	2.837	.005	.476	2.102
	Tangibility Avg	.052	.060	.035	.876	.382	.871	1.148
	Assurance Avg	.128	.074	.082	1.735	.084	.610	1.640
	Satisfaction Avg	.428	.047	.467	9.007	.000	.504	1.983

a. Dependent Variable: Loyalty Avg

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Empath Avg	Responsiveness Avg	Tangibility Avg	Assurance Avg	Satisfaction Avg
						Variance Proportions			
1	1	5.914	1.000	.00	.00	.00	.00	.00	.00
	2	.039	12.276	.04	.00	.01	.08	.01	.46
	3	.019	17.483	.00	.15	.16	.34	.00	.31
	4	.011	22.842	.03	.54	.59	.01	.04	.04
	5	.009	25.259	.07	.12	.19	.40	.54	.06
	6	.006	30.478	.85	.18	.04	.16	.41	.14

a. Dependent Variable: Loyalty Avg

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Loyalty
  /METHOD=ENTER Responsiveness Satisfaction.
```

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Satisfaction Avg, Responsiveness Avg[b]	.	Enter

a. Dependent Variable: Loyalty Avg

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.673[a]	.453	.451	.58734

a. Predictors: (Constant), Satisfaction Avg, Responsiveness Avg

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	114.415	2	57.208	165.834	.000[b]
	Residual	137.987	400	.345		
	Total	252.403	402			

a. Dependent Variable: Loyalty Avg

b. Predictors: (Constant), Satisfaction Avg, Responsiveness Avg

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.926	.166		5.562	.000		
	Responsiveness Avg	.260	.058	.211	4.460	.000	.612	1.633
	Satisfaction Avg	.478	.043	.522	11.041	.000	.612	1.633

a. Dependent Variable: Loyalty Avg

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Responsiveness Avg	Satisfaction Avg
1	1	2.956	1.000	.00	.00	.00
	2	.031	9.718	.43	.00	.67
	3	.013	15.283	.57	.99	.33

a. Dependent Variable: Loyalty Avg

جامعة النجاح الوطنية

كلية الدراسات العليا

دور الجودة على ولاء الزبائن في شركات تقديم خدمات النفاذ الجزئي للإنترنت في فلسطين

إعداد

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إشراف

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قدمت هذه الاطروحة استكمالا لمتطلبات الحصول على درجة الماجستير في الإدارة الهندسية بكلية الدراسات العليا في جامعة النجاح الوطنية في نابلس– فلسطين.

2017

ب

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الملخص

قطاع خدمات الإنترنت في فلسطين يعتبر سوق تنافسي للغاية ، و يواجه بعض التحديات المرتبطة بالقواعد والأنظمة الإسرائيلية المتعلقة بخدمة الإنترنت. هذه التحديات تؤكد على ضرورة أن يكون لدى مزودي خدمات الإنترنت فهم مفصل و واضح لأبعاد جودة الخدمة الحاسمة و التي تؤثر على ولاء الزبائن لتقييم وتعزيز الخدمة التي يقدمونها باستمرار. لذلك هذا البحث هو محاولة لدراسة تأثير جودة الخدمة على رضا العملاء و ولائهم في قطاع الإنترنت الفلسطيني.

استخدمت الدراسة النموذج الكمي بالاعتماد على أبعاد SERVQUAL لجمع البيانات من خلال استبيان، وقد جمعت بيانات المسح من 403 استبانة صحيحة في الضفة الغربية من المشتركين في الانترنت مع أكثر من ثماني شركات مزودة للخدمة. تم فحص المتغيرات على أساس الإطار المفاهيمي باستخدام برنامج (SPSS) حيث تم حساب وسائل الطرق الكمية مثل المقارنة بين المتوسط الحسابي والانحدار البسيط والمتعدد وغيرذلك.

أظهرت نتائج البحث أن مستوى جودة الخدمة بشكل عام لا يلبي توقعات العملاء. وبالإضافة إلى ذلك، فإن التحليل الوصفي لمتغيرات الدراسة يعطي مؤشرا على أن الابعاد الثلاثة لجودة الخدمة (الاعتمادية و الاستجابة و الملموسية) لديها مستوى درجة متوسطة، في حين أن بعدي التعاطف والضمان كانا بمستوى عال.

و أظهرت نتائج البحث أن جودة الخدمة تؤثر بشكل إيجابي على رضا العملاء، واشارت الى وجود علاقة إيجابية بين رضا العملاء وولائهم. و تظهر النتائج أيضا أن رضا العملاء يلعب دور الوساطة في العلاقة بين جودة الخدمة وولاء الزبائن.

و تشير الدراسة إلى أن تأثير بعد الاستجابة على رضا المستهلكين وولائهم هو أقوى من آثار

ج

الأبعاد الأخرى، وبعد الملموسية له الاثر الأقل.

وأخيرا تقترح الدراسة أن مقدمي خدمات الإنترنت يجب أن يحاولوا تحسين مستوى جودة الخدمة من أجل تلبية احتياجات العملاء و رغباتهم وكسب ولاء العملاء على المدى الطويل.

الكلمات المفتاحية: أبعاد جودة الخدمة ، رضاالعملاء، ولاء العملاء،SERVQUAL، مزود خدمة الإنترنت