



**Arab American University
Faculty of Graduate Studies**

**The Relationship between Service Quality and Customers Satisfaction in
Palestine Mobile Telecom Industry**

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Thesis approval

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Declaration

I declare that this thesis was composed by myself, that the work contained herein is my own except where explicitly stated otherwise in the text, and that this work has not been submitted for any other degree or processional qualification except as specified.

Further, I have acknowledged all sources used and have cited these in the reference section.

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ABSTRACT

Service quality and customer's satisfaction are highly correlated, there are many researches were conducted in the relation between service quality and customer's satisfaction in order to investigate the effects of service quality on customer's satisfaction. As a result most researchers claimed that there is a positive relation between service quality and customer's satisfaction and financial performance of companies.

Due to the lack of researches on this topic in Palestinian telecom industry, the aim of this master thesis is to measure the relationship between quality of service and customer's satisfaction in mobile telecom industry in Palestine. To achieve this purpose, the thesis adopted strive service quality model that depends on six dimensions (tangibles, reliability, responsiveness, assurance, empathy and price), five of these dimensions are extracted from SERQUAL model, that is commonly used for this purpose, based on these dimensions, the research hypothesis that are used for testing the research problem "the relationship between customer satisfaction and services quality in mobile telecommunication industry in Palestine" are:

- H1: There is a relationship between tangibles and customer satisfactions.
- H2: There is a relationship between reliability and customer satisfactions.
- H3: There is a relationship between responsiveness and customer satisfactions.
- H4: There is a relationship between assurance and customer satisfactions.
- H5: There is a relationship between empathy and customer satisfactions.
- H6: There is a relationship between price and customer satisfactions.

In order to investigate upon relations between services quality and customer's satisfaction. A survey were conducted on 400 customers from Palestine Cellular Communications Company "Jawwal" and Wataniya Mobile Palestine, using of

the six dimension's determined in the model, this data collected from customers who tested for assessment of measurements model (convergent validity and discriminant validity) and assessment of structural model (coefficient of determination (R^2), path coefficient (β values) and Path Significant (p-value).

Based on the findings, the result of this thesis shows that there is a positive relationship between service quality and customer satisfaction. Hence, the study concluded that customer satisfaction is being affected by price, assurance, empathy, responsiveness, reliability. But it's observed that tangibility has no statistically significant effect on customer satisfaction.

In the aspect of contributions, the findings of this study can serve mobile telecom companies by defining the dimensions that have the highest level of impact in order to achieve their customer satisfaction. Moreover this research extends the dimensions of SERVQUAL model by adding new dimension price which is supplemented to SERVQUAL model. It shows the strength of relation with customer's satisfaction.

Keywords: Quality, Quality dimensions, Service quality, SERVQUAL model, Service quality dimensions, Customer satisfaction

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1. CHAPTER I: INTRODUCTION

1.1 Overview

Service quality and customer satisfaction are considered as important drivers which organizations have to pay attention for when they are seeking to stay as gigantic part in competitive market. Therefore, any company has to put an extra effort to remain perceived quality in high level in order to survive within current high competitive market. The study applies American Customer Satisfaction Model (ACSM) in order to measure the relevance between customer satisfaction and service quality. Furthermore to explore that there is an effect of customer satisfaction on organization's profitability (Angelova and Zekiri, 2011).

In today's highly competitive market meeting customer's expectation and performance is not enough, the companies should exceed this expectations and performance level to reach the delight characteristics area "surprise customers with unexpected outcomes". 'Kano model' (see Fig. 1.1) differentiate between the three characteristics that cause delight, satisfaction and dissatisfactions of customer. Delight customer's refers to services that must be or more better to present satisfactions, what is minimum required that customer naturally expect from it will cause customer dissatisfaction.

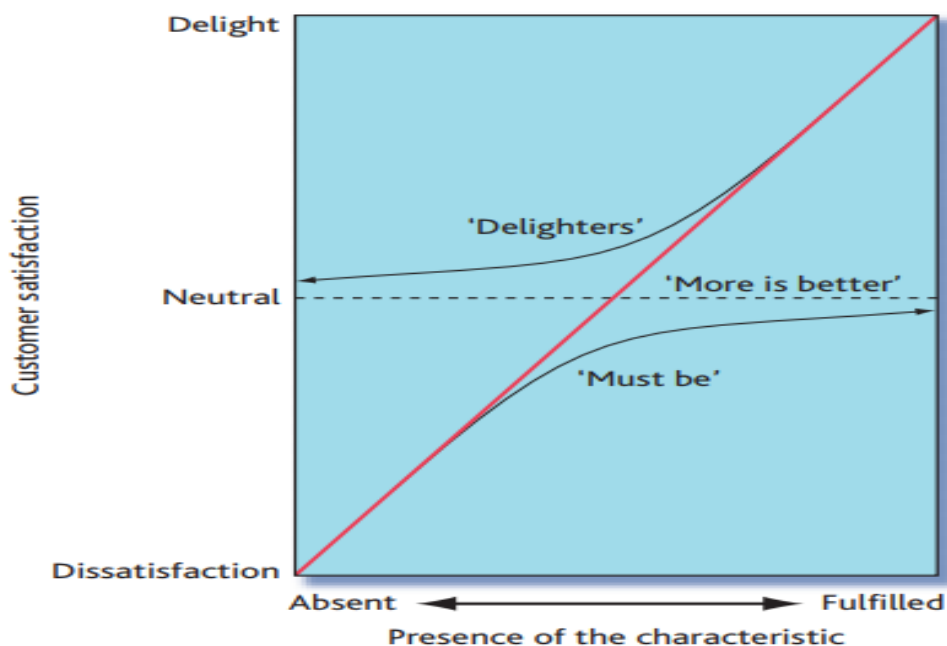


Figure 1.1 Kano's model of customer satisfaction (Berger, 1993)

“Management must think of itself not as producing products, but as providing customer creating value satisfactions. It must push this idea (and everything what means and requires) into every nook and cranny of the organization. It has to do this continuously and with the kind of flair that excites and stimulates the people in it”. (Levitt, 1984)

Services company should not provide services to the customers in bad experience, since this will affect customer's satisfaction “they become dissatisfied”, in which this case will lead bad experience customer to reflect their bad experience to others (Griffin, 1995), whereas customer satisfaction level are mainly associated with customer retention, financial performance (Anderson et al., 2004).

1.2 Aims and Objectives

The relation between service quality and customer satisfaction would be the main concern of our study in the context of mobile telecommunication industry. The main aim of this research study is to measure if there is a direct effect of service quality delivered by mobile telecommunication operators in Palestine on customer satisfaction. The data that has been collected from customers by using quantitative data collection methods. And it will play an important role in answering the main research problem which is “the relationship between customer satisfaction and services quality in mobile telecommunication industry in Palestine”.

1.3 Contributions

The results of this study will assist in delivering data about customers' requirements, and how these data will lead to their satisfaction and loyalty, and also; it may help some studies to achieve some of their goals in the future.

As practical contribution, this study will set a baseline in measuring service quality in mobile telecommunication sector in Palestine, beside that companies can benefit from this study in practice through setting a baseline that measure the service quality by the customer's, in addition to that using the result obtained from measuring the service quality in developing their strategic plans.

In the aspect of theoretical contribution, this research extends the dimensions of SERVQUAL model by adding and testing the new pricing dimension to other dimensions.

1.4 Problem Statement

In recent days, each company tend to specialize itself within all competitive firms by providing the best quality service for customers in order to attracting new customers. Therefore, the

quality of service is considered the most important and vital factor that any business firm would invest to maintain continuously towards increasing market share and profit.

Any company interests to offer the highest level of customer satisfaction should focus on customer requirements, delivered service, product's feedbacks, and implementing comparable analysis with competitors' products and services.

In addition to customer experience that is considered as key driver of revenue generation, the serving approach, collecting information, supporting and listening to the customers will also affect positively on customer retention and satisfaction. Moreover, when customers spread their satisfaction impressions and loyalty to others, a considerable effect will raise company's attempting to increase its satisfaction rate and marketing share. As a result, any firm that seeks to possess a competitive advantage within this highly competitive environment, would put an extra effort to gain high customer satisfaction rate and absorb growing profits (Bullard, 2017).

The linkage among quality of service and customer satisfaction in service industries has become a major preoccupation not only in telecommunication industry, yet in all other industries (Melisidou & Theocharis, 2007).

Therefore, this study is trying to study the relationships between the service quality and customer's satisfaction in telecom companies in Palestine by adapting the SERQUAL model. Data that collected in this study, will become the building blocks of strategic planning to operational decision making, through working on the effectiveness of service quality dimensions on customer satisfaction.

1.5 Company Profile

Palestinian started offering mobile phone services in 1999, because then Israel granted the Palestinian national authority frequencies to launch the first Palestinian mobile telephone service company "Jawwal" in the Palestinian territories (Abudaka, 2016). These days, there is two mobile operators, one is "Jawwal" with a prefix 059, and the other is Wataniya Mobile with a prefix 056, and both provide 2G and 3G services, and they combined have more than 3,400 employees and serve about 3.73 million customers (Office of the Quartet, 2017.)

However, the development in such sector in Palestine face many restrictions due to the Israeli policy and control on the importing of equipment for ICT and telecom companies, and working

area restrictions in the Palestinian territories. And the need to go through an Israeli-registered company to access international links.

Moreover, there is a high competition with the Israeli operators that have 3G and 4G capabilities. They are able to attract higher- value customers, they captures about 20% of the Palestinian market, (Post, 2016)

1.5.1 Palestine Cellular Communications Company

Palestine cellular communications company “Jawwal” is the first mobile network operator in Palestine, it was established in 1999 by Paltel company, it serves about 3 million customer in the Palestinian market.

1.5.2 Wataniya Palestine Mobile Company

Wataniya Palestine mobile telecommunication company “Wataniya” is the second mobile operator in Palestine, it was established in 2006 and founded in November 2009. Ooredoo Group owns 48.45%, Palestine Investment Fund owns 34.03%, and other free trades own 17.52%. It is serves more than 1 million customers in West bank and Gaza.

1.6 Customer Profile

The companies Jawwal and Wataniya Mobile combined serve about 3.73 million customers. They use three different types of packages (postpaid, prepaid and mix).

1.7 Research Question and Hypothesis

Although lots of studies have been conducted to find the effect of service quality on actual customer satisfaction level, but none were performed among mobile telecom industry in Palestinian Community. This study will examine the quality of service and its direct relation on customer satisfaction. The price here is considered as an extra variable to the actual SERQUAL model. Figure (1.2) below will summarize the research model and proposed hypotheses.



Figure 1.2 the research model and proposed hypotheses.

The dimensions that will be used to measure customer satisfaction in this study are:

- **Tangibles:** this dimension measures how the physical appearance of personnel, facilities and equipment will affect customer satisfaction level. Hence, the hypothesis (H1) is drawn:
H1: There is a relationship between tangibles and customer satisfactions.
- **Reliability:** this dimension measures how you are assuring that you provide customers what was promised carefully will affect customer satisfaction level. Hence, the hypothesis (H2) is drawn:
H2: There is a relationship between reliability and customer satisfactions.
- **Responsiveness:** this dimension measures the effect of employee's readiness to serve customers immediately, and helping them on customer satisfaction level. Hence, the hypothesis (H3) is drawn:
H3: There is relationship between responsiveness and customer satisfactions.
- **Assurance:** this dimension measures the ability to convey trust and confidence, and demonstrate knowledge that will affect customer satisfaction level. Hence, the hypothesis (H4) is drawn:
H4: There is relationship between assurance and customer satisfactions.

- **Empathy:** this dimension measures how care and individual attention given to customers will affect customer satisfaction level. Hence, the hypothesis (H5) is drawn:
H5: There is relationship between empathy and customer satisfactions.
- **Price:** this dimension measures how the price of product and services perceived by customers will affect customer satisfaction level. Hence, the hypothesis (H6) is drawn:
H6: There is relationship between price and customer satisfactions.
- **Customer Satisfaction:** this dimension is considered as the dependent variable in this study on the six independent variables above (Tangibility, Reliability, Responsiveness, Assurance, Empathy and Price), in which this study will examine the relation between independent variables and customer satisfaction.

1.8 Thesis Structure

To give this master thesis an organized structured, it follows the standard thesis chapters, as illustrated in Figure (1.3). The thesis has five chapters (Introduction, Literature review, Methodology, Analysis, Results and Discussion and finally Conclusions and Recommendations):

Chapter 1 includes general over view about the effect of service quality delivered by mobile telecommunication operators in Palestine on customer satisfaction in Palestinian market, beside of aims and objectives of this study, main contributions to customers and companies' management, in addition to why this research problem is important from customer perspectives, and it also includes the research hypothesis.

Chapter 2 provides the importance of the topic worldwide, and the relation of this study with previous studies that conducted in the same and relative fields. The theoretical framework of the study and main research questions and gaps.

Chapter 3 expresses the method that used to measure the research problem, survey instrument, sampling technique, reliability and validation test.

Chapter 4 presents data collections technique which used structured questionnaire that will be filled by sample of customers from Jawwal and Watanya mobile, through visiting their showrooms and online survey. The data collected from customer will go through analysis phase

using statistical package for the social sciences “SPSS” software and Partial Least Squares (Smart PLS) to gain value from it and find relationship.

Chapter 5 highlights the findings that obtained from chapter 4, concluding the problem of research in Palestine, the main contribution of this study, and which action should be considered in further research.

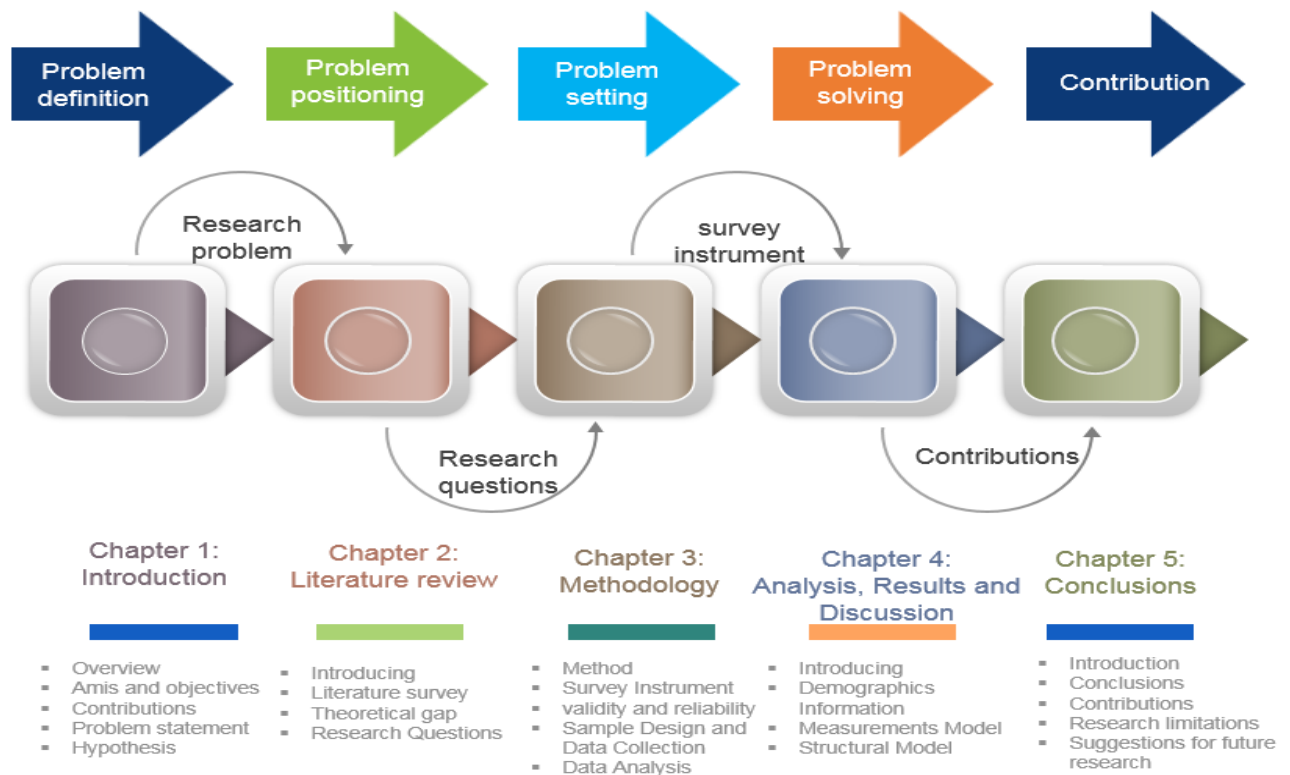


Figure 1.3 the Schematic description of the thesis structure.

2. CHAPTER II: LITERATURE REVIEW

2.1 Introduction

Providing high service quality has become one of the main mission in business and industry. For this reason, researchers have conducted many studies to measure the relationship between service quality and customer satisfaction, but there is one study that performed on fixed line as a case on Palestinian telecommunication company “Paltel”.

Customer satisfaction nowadays become a very important aspect, which attracted many researchers to study the impact of service quality on customer satisfaction in many fields such as (banking, hospitals, hotels tourism, and telecom sectors).

There are several international studies conducted on telecom industry, such as the study that investigate the effect of service quality on customer satisfaction in the utility Industry as a Case of Vodafone in Ghana (Agyapong, 2011), and the case which study the effect of service quality dimensions on customer satisfaction as comparative analysis of Pakistan telecom sector (Arslan, et al., 2014). However, there was only one research study about the effect of quality of services in telephone services on customer’s satisfaction in Gaza as Palestinian telecommunication company case (عابدين, 2006).

A study conducted at rural Indian banks (Adil ,2013) to determine the key indicators that affect the overall customers satisfaction across the five quality dimensions (tangibles, reliability, responsiveness, assurance, and empathy); using this model to measure service quality, emphasizes that having satisfaction level depends on the five dimensions.

2.2 Quality

Everyone is tries to define quality based on their own perspective of it. There are many definitions of quality that includes perfection, consistency, eliminating waste, speed of delivery, compliance with policies and procedures, doing it right the first time, delighting or pleasing customers, total customer satisfaction and service. But according to Shewhart’s definition of quality which is “absolute and universally recognizable, a mark of uncompromising standards and high achievement.” (Reeves & Bednar, 1994).

Moreover, Montgomery (1996) defined quality as “the extent to which products meet the requirements of people who use them”. Furthermore, he divided the term quality in two different types: the first one is quality of design, that the product or service has extra options in their

design such as cars with power steering or sunroof that gives better quality of design more than other cars, which have not any of these features. The second type is quality of conformance, this type of quality is defined as the intent design conforms to the product or service delivered.

Some definitions of quality are identified based on their different circumstances (Garvin, 1984), meanwhile these definitions classified into five major approaches: (1) the transcendent approach; (2) the product based approach; (3) the manufacturing based approach; (4) value-based approach; (5) and the user-based approach.

(1) Transcendent approach:

This approach sets a standards and universally recognizable of a product or service quality level as a reference based sometimes on experience. Transcendent quality can also be classified the product or service quality level according to it beauty as perfect model (Garvin, 1984).

(2) The product based approach;

This approach check product's or service's quality based on it, certain contents or attributes or characteristics. Garvin used ice cream as an example of product based approach, he considered that ice cream with higher butter fat holds higher quality than lower butter fat. On the other hand, there are some types of products can evaluate their quality according several dimensions such as: performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality that will be illustrated in the following section (Garvin, 1984).

(3) The manufacturing based approach:

Manufacturing based approach or production, based approach assesses quality according to conformance of products or services to product specifications, or pre-determined requirements, or if the product or service doesn't fail in the limits of specifications (Garvin, 1984).

(4) value- based approach:

This approach adopts cost and benefits as a rule of assesses quality, the cost benefit analysis is applied in this approach, however they compare if the benefits perceived exceed cost you pay, then a product or service increases in level of quality accordingly. This means that the products or services with high performance level may be not considered having high quality (Garvin, 1984).

(5) The user-based approach.

Quality in this approach is considered as how services or products meet users' or customers' needs or preferences "in the eye of the beholder". According to this approach Garvin (1984), used cars industry as an example to simplify quality definition, he assumed that if Chevrolet meet customer needs and preferences than others type of cars. As a result, Chevrolet will get higher quality level than others types (Garvin, 1984).

In order to have a comprehensive definition for quality, we have to consider some keys dimensions of quality. According to Garvin (1984), one of the most specialist for quality, assumes that, if you considered various strategic quality dimensions, such as (performance, features, reliability, conformance, durability, aesthetics serviceability and perception) that are shown in figure (2.1), this will give you the power to compete effectively. The eight strategic quality dimensions are:

Dimension 1: Performance

This dimension concentrates on the operating characteristics of the product as a bright property in the product specification from customer's point of view, since many customers are attracted to buy products or services with warranty periods on performance, like cars that give warrantee period 3 to 5 years or 100 thousand kilometers.

Dimension 2: Features

This dimension focuses on having all the additional features that is expected from customers or related to the product or services delivered, since these features are supplemental to the previous operating characteristics " i.e. we can consider the value add services as one of the additional features". As an example on this dimension auto parking in an automobile would be an additional feature.

Dimension 3: Reliability

Reliability dimension refers to the extent to build trust and confidence between the company and the customers, that will reach to have a high level of loyalty of the benefit that will achieved from your product for a long period of time. So, reliability nowadays is considered as a part of brand type or company image, which became the primary reference for quality assessment by most end-users.

Dimension 4: Conformance

In this dimension the quality of the products or services compared with pre-defined specifications, how long the products or services meet the specification, they will have the highest quality “i.e. conformance of the products or services to the specification”.

Dimension 5: Durability

Quality in this case refers to the durability period of the products or services before break down, the warrantee period of the products or services are mainly depend on calculating the durability from the company before setting warrantee period, however, warrantee period vary from industry to other.

Dimension 6: Serviceability

Serviceability refers to all aspects related to post sales services, such as easy to repair when beak down occurs and maintain “serviceability” in addition to costing issues.

Dimension 7: Aesthetics

Aesthetic dimension reflects the end user preferences or individual’s judgment of products or services, for instance, feels, sounds, tastes and so on, this dimension didn’t affect others dimensions, because it depends on personal desire.

Dimension 8: Perception

Some products or services achieved high quality based on perceptions of customer, these perceptions on the product, based on customer experience or sometimes the marketing, they play a significant role in choosing the product that makes the customer judges the product before deciding to purchase, such as luxury cars, smartphones, and kind of watches that perceived high quality, while this perceptions may take from negatives customers (David A. Garvin, 1984).

Figure 2.1 below summarize the eight strategic quality dimensions:



Figure 2.1 the eight strategic quality dimensions (David A. Garvin, 1984)

2.3 Service Quality

Service quality defines as “the difference between customers’ expectations for service performance prior to the service encounter and their perceptions of the service received” according to Asubonteng, et al. (1996). Mattson (1991) supposed that the service quality will be poor when the gap occurs between human’s expectations and the actual service performance, however, this assumption may be built on personal assessment. Another research that supported Mattson argument on personal services quality evaluation which is conducted by Durvasula et al. (2011), implies that the personal values is the key significant role to how customers evaluate the service quality. In other words if the relationship between customer and the firm is strong the service quality will be also strong accordingly, otherwise it will be poor. Also the studies by Durvasula et al. (2011) suggested that SERVQUAL is developed by Parasuraman, Zeithaml, and Berry (1985) to be used for evaluating the service quality by taking into consideration the gap between expectations and actually perceived service.

Ideation of service quality as a discrepancy between customers' expectations and perceptions (Parasuraman et al., 1985). Exploratory study was conducted to explore the concept of service quality. This was accomplished by organizing interviews with four different executive managers from different service industries, as a result of these interviews, it was founded that there are five levels of gaps presented between management's perceptions and customers about service quality. This different types of gaps set as a major block in trying to deliver a service that reaches of high quality level from customer perspectives (Parasuraman et al., 1985:44). These gaps are illustrated in Figure 2.2

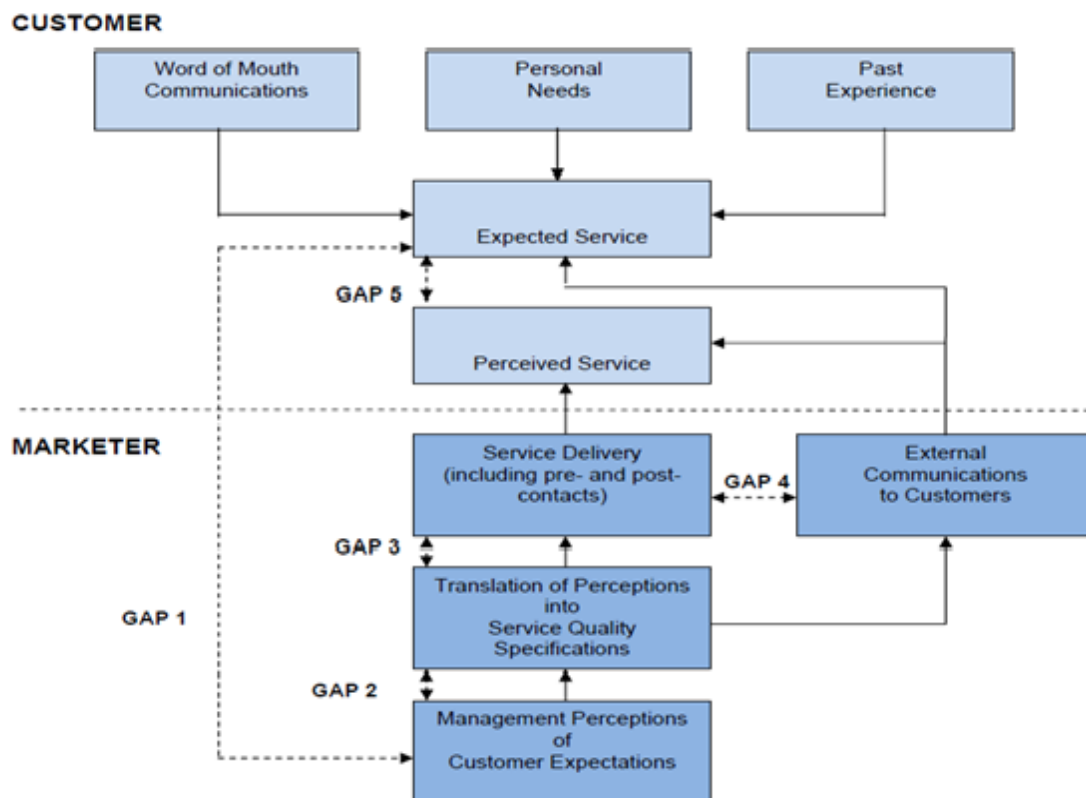


Figure 2.2 service quality gaps (Parasuraman et al, 1985:44)

Gap 1: Customer expectation – management perception gap

There are discrepancies between both expectations side customer and management of service quality, whereas this discrepancy occurs due to misunderstanding management side to the actual needs and features that meet customers' expectations in order to achieve high level of quality service, otherwise the performance of service will be affected (Parasuraman et al., 1985).

Gap 2: Management perceptions – service quality specification gap

The inconsistencies of customer expectations from management perceptions and service quality specification occur when a lack of different conditions exist, such as resource constraints, market conditions and a lack of management commitment to service quality. This is an inconsistencies between management perceptions and actual service quality specification may affect the service quality perceptions of customers (Parasuraman et al., 1985).

Gap 3: Service quality specifications – service delivery gap

Service delivery gap expresses due to mismatching of company internal standards or specifications with maintaining service quality, this refers to incompliance about these standard or absent of achieving steady employee performance (Parasuraman et al., 1985). This will lead to unsatisfied customers to company service quality.

Gap 4: Service delivery – external communications gap

This gap centered on what firms promises customers deliver through different channels of communications and actual delivered services. The company should have active contact with customers through its external communications in order avoid unfavorable customers perceptions on service quality (Parasuraman et al., 1985).

Gap 5: Expected service – perceived service gap

The gap between expected and perceived service is considered as the most essential gap among all four gaps mentioned above, however, existing of all four gaps can be discovered through appearing this gap since Parasuraman et al. (1985) persuaded that there is a relationship between the first four gaps and gap 5.

2.4 Measures and Dimensions of Service Quality

A lot of researches were conducted on the service quality especially by Parasuraman (1985) who classified customers in different focus groups by using formal surveys. They derive SERVQUAL model that consists of five main dimensions are tangibles, reliability, responsiveness, assurance, and empathy. These five dimensions resulted from 10 dimensions which overlap with each other considerably (Hayes, 2008). According to (Hayes, 2008) the definitions of these five service quality dimensions are illustrated in figure (2.3) as important characteristics of staff support areas.

1. *Availability of support*: the degree to which the customer can contact the provider
2. *Responsiveness of support*: the degree to which the provider reacts promptly to the customer
3. *Timeliness of support*: the degree to which the job is accomplished within the customer's stated time frame and/or within the negotiated time frame
4. *Completeness of support*: the degree to which the total job is finished
5. *Pleasantness of support*: the degree to which the provider uses suitable professional behavior and manners while working with the customer

Figure 2.3 service quality dimensions and their definitions (Hayes, 2008).

As we mentioned above, there are many studies conducted in the telecom industry, but none of them established specific quality dimensions for the telecom industry, but they used in their studies traditional dimensions that is used for service industrial (Rahhal, 2015) which appears in figure (2.4) below

| No | Author, Year | Field of Study | Key Findings |
|----|---------------------------------------|--|--|
| 1 | Leisen and Vance, 2001 | Fixed line telephone services | SERVQUAL instrument seems to be the best fitting model of service quality in the US and Germany. Service quality is important to overall customer satisfaction with telephone services. |
| 2 | Johnson and Sirikit, 2002 | Both fixed line and cellular mobile services | Service quality assessment using SERVQUAL performed reliably in the Thai telecommunication service settings. |
| 3 | Van der Wal, Pampallis and Bond, 2002 | Cellular mobile services | Focused on the customer's perception of service quality. SERVQUAL instrument is reliable for the measurement of service quality in the telecommunication industry in South Africa. |
| 4 | Wang and Lo, 2002 | Cellular mobile services | Used SERVPERF scale for service quality measurement and found that network quality and empathy are the most important drivers of overall service quality in China's mobile phone market. |
| 5 | Ranaweera and Neely, 2003 | Fixed line telephone services | Used SERVPERF with some modifications for service quality measurement. Study revealed that price perceptions and indifference moderated the relationship between service quality and customer retention. |
| 6 | Kim, Park and Jeong, 2004 | Cellular mobile services | Service quality has positive impact on customer satisfaction. Study revealed that call quality is the most important issue that impacts customer satisfaction for mobile services. |

Figure 2.4 service quality dimensions in telecommunication (Rahhal, 2015)

Tan et al. (2008) considered seven dimensions for mobile service quality: perceived usefulness, perceived ease of use, content, variety, feedback, experimentation, and personalization

Ojo, (2010) has conducted a research using service quality model “SERVQUAL” that measures the quality of service received along five dimensions: Responsiveness, Reliability, Assurance, Empathy, Tangibles, in order to find the variation between quality of service and customer satisfaction level in Nigerian mobile telecommunication network (MTN). The researcher divides the performance of services into two categories: first, dissatisfied customer experience in which perceived performance is less than expectation, and the second one is satisfied

Customer experience when perceived performance exceeds the expectation of customer. The study concludes that there is correlation between service quality and customer satisfaction in Nigerian (MTN).

In fact, having a plenty knowledge about how to present the service and assess the service quality, helps managers to provide confident information that could be used in monitoring and improving the service quality.

The SERVQUAL approach is the most famous approach that used to measure quality of service and the difference between actual services and customer needs (Shahin , 2004).

The SERVQUAL approach was mainly divided the services quality into five dimensions (tangibles, reliability, responsiveness, assurance, and empathy) that will be the core of our study, to measure service quality performance that perceived by mobile telecommunication customers, and which enable management to gain better understanding for those dimensions and the effect of them on service quality and customer satisfaction. In addition to that, possessing a comprehensive knowledge of these five dimensions will considerably help managers to identify strengths and weaknesses and thereby make necessary improvements (Gunarathne, 2014).

After extensive researches that had been performed by Parasuraman et al., (1985), customers often rely on five dimensions in evaluating service quality. And according to ARLEN, (2008), dimensions are composed of five generic factors as follows:

(D1) Tangibles: Physical appearance of personnel, facilities and equipment

(D2) Reliability: Assuring that you provide customers what was promised carefully.

(D3) Responsiveness: Readiness to serve and help customers immediately.

(D4) Assurance: Ability to convey trust and confidence, and demonstrate knowledge and confidence

(D5) Empathy: Care and individual’s attention which are given for customers.

The SERVQUAL approach has been used only for these five dimensions. But in order to study the impact on customer satisfaction in mobile telecommunication, another dimension called price is added to the model which will extend the SERVQUAL model to include six dimensions. Besides that, price satisfaction is directly related with customer's satisfaction that lead to customer's loyalty (Nazari, et al., 2014).

2.5 Customer Satisfaction

Customer satisfaction is defined as quality of service exceeds customer expectations, in this psychological case, it makes customers highly satisfied (Paul, et al., 2016). When customers become satisfied on quality of services delivered by the firm, this will establish a strong relationship between them (Kashif, et al., 2015) which will have directly effect on customer purchasing or reputations, this will be considered as competition advantage for the company. Loke et al., (2011) research supported this assumption since it was found that service quality has a significant effect on customer satisfaction, referring to Angelova & Zekiri (2011) it was explored that satisfied customers will not be advocators of products, but they have positive image on it. On the other hand, American customer satisfaction index (ACSI) stated that, "customer satisfaction is greater quality-pull than price-pull and value pull."

2.6 Measuring Customer Satisfaction

Measuring customer satisfaction criteria developed by Liu et al. (2008) that listed below is trying to highlight the main leading issues to emphasize that company attaining customer satisfaction, such as purchase and repeater consumption of goods or services:

- Satisfaction: customer acceptable to goods or services delivered by company.
- Content: The features of goods or services that include all benefits that grant customer a positive experience in purchasing.
- Relived: The mitigation of the pad customers' experience about goods or services provided.
- Novelty: The goods or services that carry of attractive and motivating in customers.
- Surprise: brings delighted and unexpected goods or services that consumed by people.

2.7 Relationship between Service Quality and Customer Satisfaction

According to (Hayes, 2008) the financial security of companies will be desired to achieve when the company seeks to satisfy their customers and subsequently to increase customer loyalty. Many studies and researches emphasize that there is a strong relations between customer

satisfaction and service quality. One study measures the impact of service quality on customer satisfaction in banking sector of Karachi in Pakistan found that there is a positive effect of customer loyalty, repeat purchase and word of mouth communication on firm profitability (Yousuf, 2017).

Marketing, sales, and partners are the essential parts in the company, and regarded as the first line contact with customers, so, the company must manage them effectively in order to reach to high level of customer's satisfaction. There are several models that study the relationship between these two levels of contact, according to Heskett, et al., (1997) and ACSI (2008) model shown in figure (2.5) which represents the relationship between the first company layers satisfaction (marketing, sales and partners), customer satisfaction and loyalty that increase the company financial performance (revenue, profits and market share).

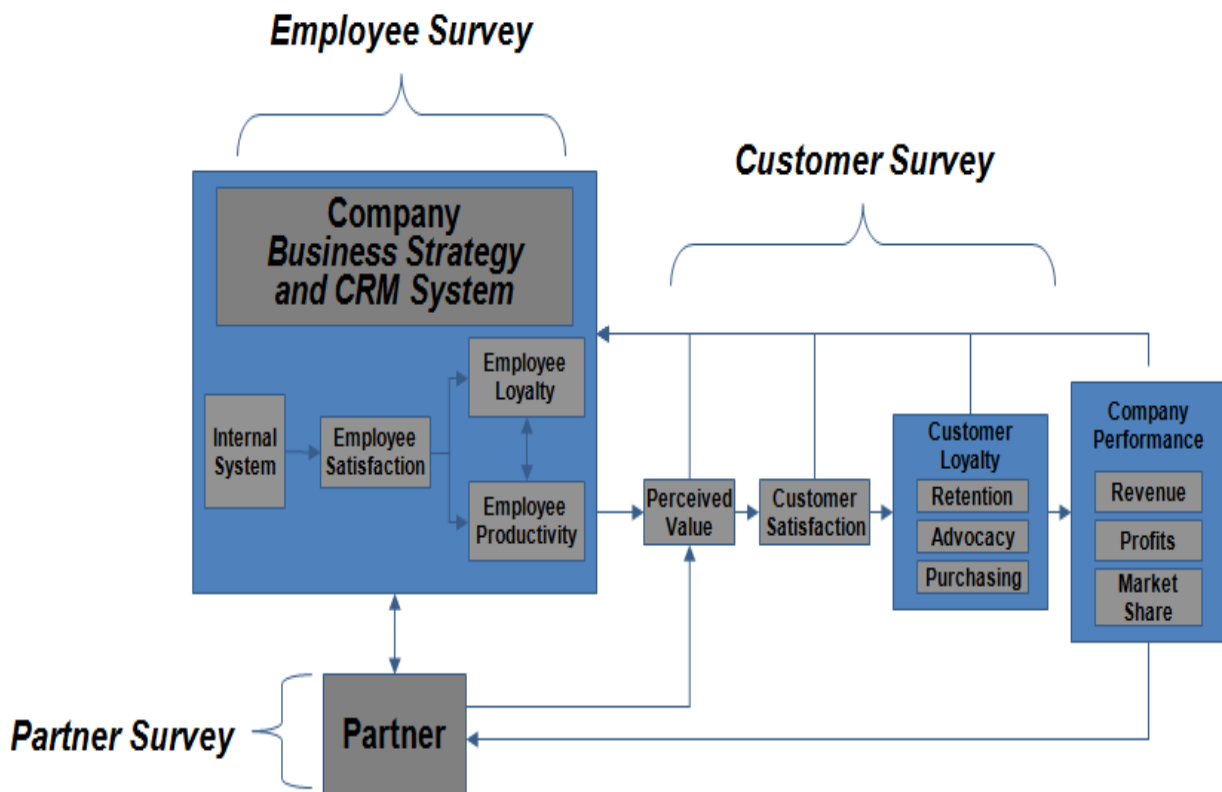


Figure 2.5 Marketing/Sales/Service Business Model and the Relationship among Key Organizational Variables (Adapted from Heskett, et al., (1997) and ACSI, 2008)

Based on the given research question in chapter 1 and literature review of the main concept and relevant studies the following hypothesis will be test:

H1: There is a relationship between tangibles and customer satisfactions.

H2: There is a relationship between reliability and customer satisfactions.

H3: There is a relationship between responsiveness and customer satisfactions.

H4: There is a relationship between assurance and customer satisfactions.

H5: There is a relationship between empathy and customer satisfactions.

H6: There is a relationship between price and customer satisfactions.

3. CHAPTER III: METHODOLOGY

3.1 Method

The main application that will be used for evaluating and testing the above hypotheses of this research designs a questionnaire in order to measure the effect of service quality on customer satisfaction. All data will be collected from 400 customers who come to receive mobile telecom services in Palestine. In 2016, the Palestinian population was 5 million (West Bank & Gaza Strip) while the mobile phone users were 3.7 million according to the Palestinian Central Bureau of Statistics (PCBS, 2016).

3.2 Survey Instrument

The survey instrument that used in this study, depended on questionnaire which is divided into two parts. First part consists of main demographic information which are age, gender, area in which subscribers live, name of the company and type of product which used by customer. Second part, was taken the five dimensions of SERVQUAL model (tangibility, reliability, responsiveness, assurance, and empathy) and the price dimension. This part begins to measure tangibility as a first dimension in the model which consists of ninth questions that measure the physical appearance of personnel, facilities and equipment's that affect customer's satisfaction level, the second dimension is reliability, which measures how you are assuring that you provide customers, what was promised carefully, this dimension consists of seventh items in the questionnaire, moreover, the third dimension is responsiveness which measures how the readiness employees to serve and help customers immediately affect quality of service by asking seven questions, next dimension is assurance of customers that service will have the ability to convey trust and confidence to them which can be measured through seven questions, the last dimension of SERVQUAL model is empathy which indicates to how care and individual attention that given to customers will affect customer satisfaction level by asking six questions, finally, the price dimension which is added to our model in order to assess how the price of products and services perceived by customers that affect customer satisfaction level by considering five questions in this dimension

3.3 Internal Validity and Reliability of the Instrument

Before beginning with distributing questionnaires phase, construct and face validity measures through sent the questionnaire to experts from different side, the questionnaire sent for one

university teacher from marketing college to assess this validity type, some modifications happened in the questionnaire.

To check the reliability and validity of the instrument, a sample of thirty five questionnaires were distributed on both Jawwal and Wataniya mobile customers, To reach our objective from this study, data will be obtained from questionnaires that uses Likert scale which is vary from low level of satisfaction “strongly disagree” to high level of satisfaction “strongly agree” customers will response towards satisfaction strength index. Cronbach’s alpha was used to find reliability of the survey by checking internal consistency of constructs, and also convergent validity was used to measure if the factors measure the same construct, in addition to discriminant validity which is extended measuring if the construct is indeed differing from each other’s by examining the correlations between the measures of potentially overlapping constructs of the measurements model.

3.4 Sample Design and Data Collection

The sample of customers in this study was distributed to 400 customers they received services from Jawwal and Wataniya mobile in Palestine, where the respondent rate reach to 65.5%, the sample randomly distributed with regardless to their gender, age, and service provider. Beside that, the survey distributed to customers through web method, by using this method 138 customer’s response to this survey.

3.5 Data Analysis Procedures

Statistical Package for the Social Sciences “SPSS” software in beside with Partial Least Squares (Smart PLS 3.2.7) were used for data analysis in this study, thus for give data obtained from customers the value and significance needed for understanding customer directions and behaviors. In order to test the hypothesis assumptions different types of tests were conducted. The first is assessment of measurements model (i.e. outer model) by using two methods of validity, which are convergent and discriminant validity, the second type is assessment of structural model (i.e. inner model) that consists of three different types of test: coefficient of determination (R^2), path coefficient (β values) and Path Significant (p-value).

4. CHAPTER IV: ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter covers the analysis part of data collections from customers through questionnaire which is distributed on them at different area of Palestine (west bank and Gaza strip) in order to emphasize the research hypothesis assumptions in the first chapter. And also this chapter conducted different types of test to examine the reliability and validity of the constructs model using partial least squares structural equation modelling (PLS-SEM). To examine the internal consistency of the constructs composite reliability test is commonly used, in addition to that, assessing the validity of the indicators in the model convergent validity and discriminant validity analysis are used. To check the correlation between independent variables (tangibles, reliability, responsiveness, assurance, empathy, and price) and the dependent variable (Customer satisfaction) by using convergent validity is used.

4.2 Demographics Information

From the total sample size that contains of 400 respondents, we found that it contains 121 female (30%) and 279 male (70%) which implies that the male respondent is greater than female due to Palestinians culture that male who is responsible for finish this types of duties than female , the table (4.1) below show the sample size distributions .

Table 4.1 Distribution of respondents by gender.

| Gender | N | % |
|--------|-----|------|
| Female | 121 | 30% |
| Male | 279 | 70% |
| Total | 400 | 100% |

The sample size consisted of both side of Palestine (West Bank are and Gaza strip) as shown in Figure (4.1) which contains of 74% of respondents from west bank and 26% of respondents covered from Gaza, the low percentage of respondents from Gaza refer to political issues and the restriction from Israeli side that prohibits us to visit Gaza , this circumstance lead us to ask

for help from colleagues and friends from Gaza in order to distribute the questionnaire on customers from different area to increase participation percentage in Gaza.

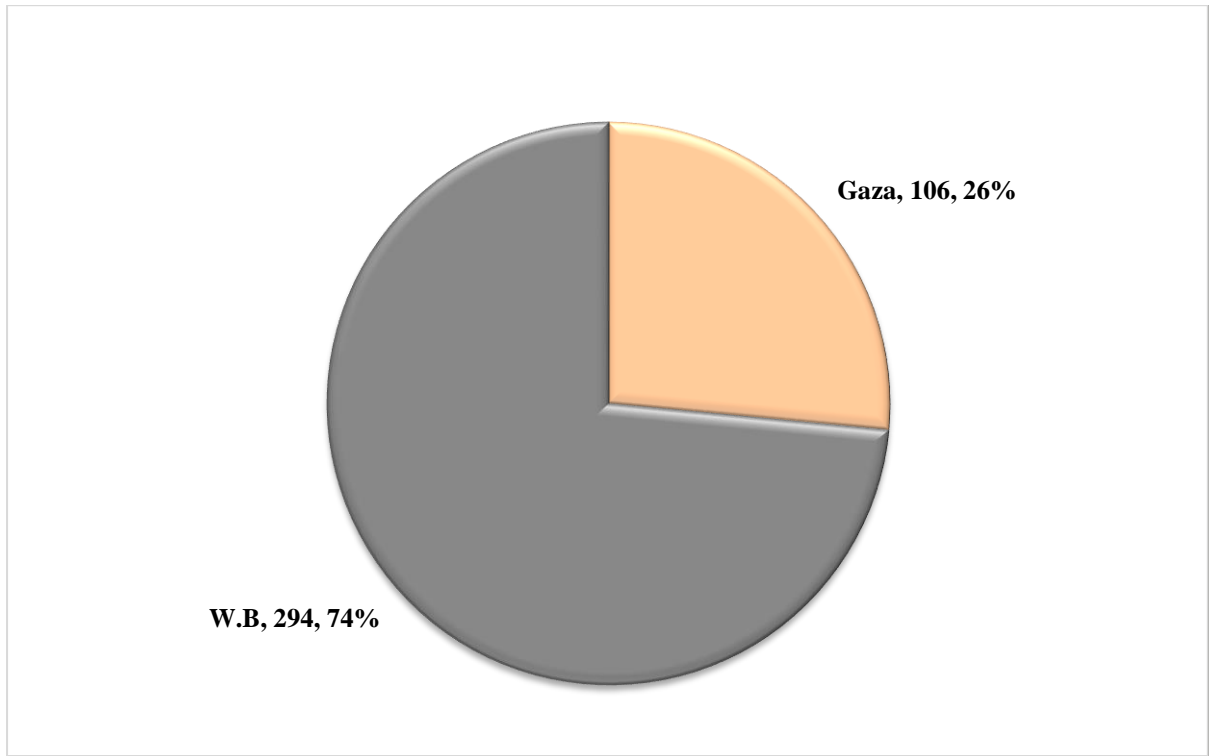


Figure 4.1. Distribution of respondents by region.

In order to cover customers from both service providers in Palestine the sample consists of 287 respondent who deal with Jawwal Company, 47 respondents who deal with Wataniya mobile Company and 66 respondents who deal with both companies at same time as illustrated in table (4.2) below :

Table 4.2 Distribution of respondents by service providers.

| Service Provider | No. | % |
|----------------------------|-----|------|
| Jawwal | 287 | 72% |
| Wataniya mobile | 47 | 12% |
| Both (Jawwal , Wataniya) | 66 | 17% |
| Total | 400 | 100% |

According to respondents result, there are variety of service packages that customers used from Jawwal and Wataniya Mobile Company, postpaid services package come at the top of other service packages, which is reach 47% (189 respondents) of total respondents, the second type is prepaid services package take 36% (144 respondents) of total sample, and last part of service packages is mix services package that reach to 17% (67 respondents) as illustrated in Figure (4.2) below:

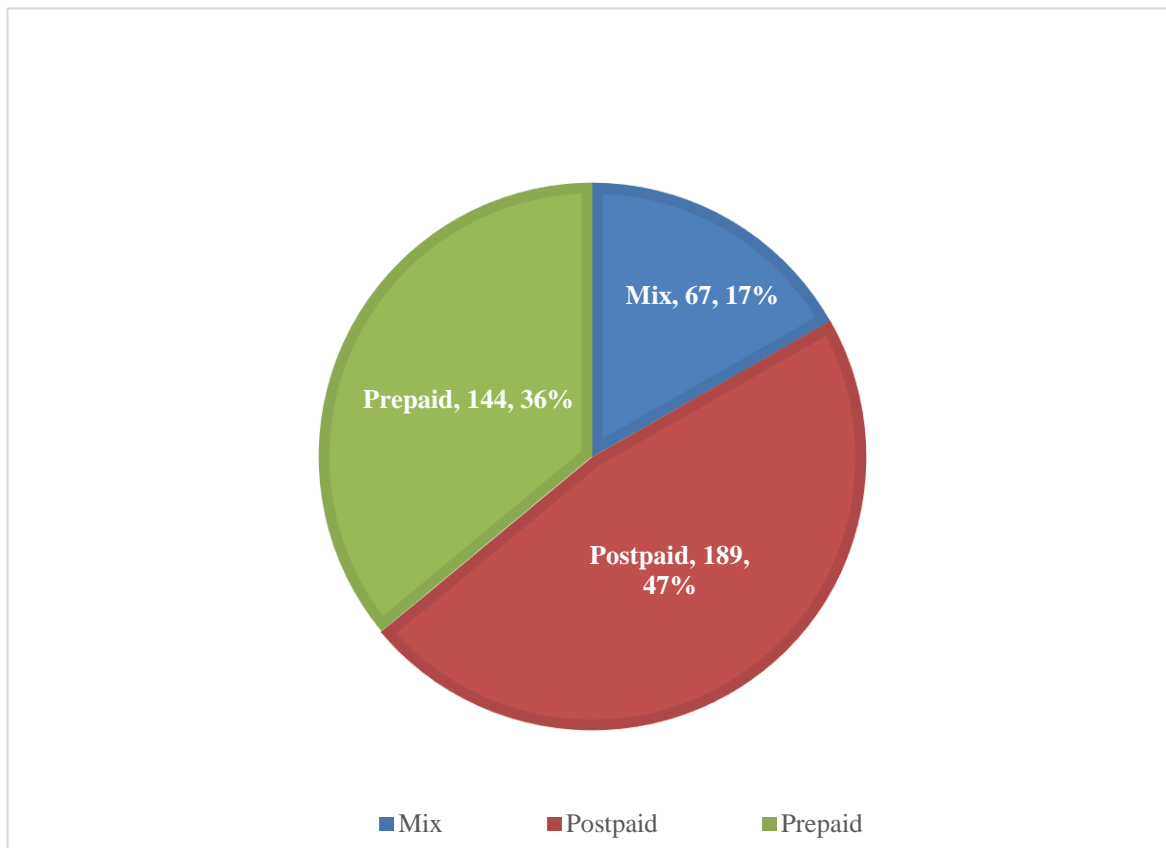


Figure 4.2 Distribution of respondents by service packages.

Adequate range of ages is representing in the sample, as we can find in figure (4.3) that the average age of respondents are 34 years with standard deviation of 9 years. The youngest age is 15 years and the oldest one is 58 years with a range of 43 years.

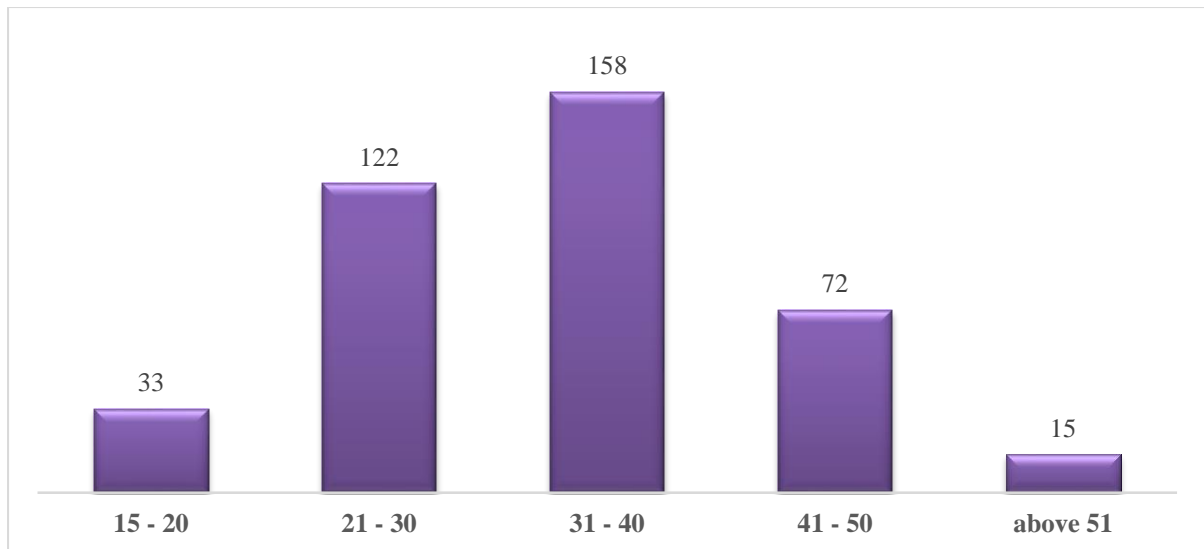


Figure 4.3 Age of the respondents

4.3 Assessment of Measurements Model (Outer Model):

This section will assess the measurements model (i.e. outer model) by using two methods of validity, the first is convergent validity, which tries to measure if the outer loading factors are measuring the same construct (the degree to which multiple items to measure the same concepts), the second validity analysis is discriminant validity which extends measuring if the construct indeed differs from each other's (i.e. The degree to which items differentiate among constructs or measure distinct concepts) by examining the correlations between the measures of potentially overlapping constructs of the measurements model by using partial least squares structural equation modelling (PLS-SEM). Structural equation modeling (SEM) becomes one of the most common method that is used in business and social research, which get more flexibility for researchers in data requirements (Hair et al., 2016).

1.5.3 Convergent Validity

The convergent validity is defined as “the extent to which a measure correlates positively with alternative measures of the same construct” (Hair et al., 2013). As well as the convergent validity is a method that can measure the construct validity (Campbell & Fiske, 1959), meanwhile it measures construct reliability through examining the correlations between indicators in the same construct.

We can examine the convergent validity through conduction three types of testing based on (Hair et al, 2010) the criteria to assess convergent validity are as follows :

4.3.1.1 Reliability Test:

Reliability and validity are very essential part when we test the consistency of the constructs of the model “measurement will get the same result” and to test the degree to which the constructs of the model accurately measure “measuring what we want to measure” (Moskal and Leydens, 2000). For the purpose of testing reliability of the constructs of the model more than one reliability tests are used, such as Cronbach’s alpha and Composite reliability, Perhaps Cronbach’s alpha is the most frequently measure of internal consistency of constructs, a commonly accepted internal consistency value by using Cronbach’s alpha should be greater than 0.7 as standard value (Hair et al. 2009).

Table (4.3) mainly representing the value of Cronbach’s alpha which exceeds the minimum level of accepted value 0.7, therefore this mean that the results of internal consistency of all indicators are accepted, since the value of each constructs is customer satisfaction (0.919), assurance (0.898), empathy (0.810), price (0.931), reliability (0.859), responsiveness (0.889), tangibility (0.835).

Table 4.3 Results of reliability and validity analysis.

| | R ² | Cronbach's Alpha | Composite Reliability | Average Variance Extracted (AVE) |
|-----------------------|----------------|------------------|-----------------------|----------------------------------|
| Customer Satisfaction | 0.649 | 0.919 | 0.943 | 0.804 |
| Assurance | | 0.898 | 0.919 | 0.620 |
| Empathy | | 0.810 | 0.864 | 0.519 |
| Price | | 0.931 | 0.948 | 0.784 |
| Reliability | | 0.859 | 0.892 | 0.543 |
| Responsiveness | | 0.889 | 0.913 | 0.602 |
| Tangibility | | 0.835 | 0.870 | 0.428 |

The other method used to measure the internal consistency of the constructs is composite reliability, some researchers prefer to use composite reliability (CR) rather than Cronbach alpha because Cronbach alpha is being criticized for its lower bound value which underestimates the

true reliability (Peterson & Kim, 2013). However, CR can be used as an alternative as its CR value, it is slightly higher than Cronbach alpha whereby the difference is relatively inconsequential (Peterson & Kim, 2013). Composite reliability widely used a value greater than 0.7 as an accepted value of Reliability of the constructs, as shown in table (4.3) all values of composite reliability for the constructs are greater than the minimum accepted level (0.7), which is supported the Cronbach alpha testing result that the reliability of the constructs in the model is consistent.

4.3.1.2 Average Variance Extracted (AVE) Test:

Examination of convergent validity comes through observing the average variance extracted (AVE) ranged from 0.55 to 0.71. (Bagozzi et al., 1988), a good rule of thumb to start from level 0.50 and more.

The results shown in table (4.3) above indicate that 6 constructs from 7 exceeds the threshold level: customer satisfaction (AVE = 0.804), assurance (AVE = 0.620), empathy (AVE = 0.519), price (AVE = 0.784), reliability (AVE = 0.543), responsiveness (AVE = 0.602). Hence, the convergent validity is confirmed for them, but the convergent validity for tangibility is not confirmed, since it gets value below the minimum accepted level (AVE = 0.428).

4.3.1.3 Factor loading Test:

Factor loading test is one of the main testing criteria that can examine the validity of the construct by determining the relationship between the indicators in the construct (i.e. the relationship between the factor and its indicator is represented by factor loading) with the same construct (outer loading values) that is shown in table (4.4) and figure (4.6) below.

Generally, when outer loading values are higher, simultaneity Cronbach's alpha, CR, AVE is achieved and that convergent validity and discriminant validity will be attained. On the other hand, there is no cut off point for outer loading value, but according to Hulland (1999) and Walker & Maddan (2008) the accepted point for outer loading value should be greater than 0.4 which is obtained in this study. Data which is shown in table (4.4) below, illustrate the values of outer loading for each indicator which is indicates that reliability has an acceptable level.

Table 4.4 Estimation of outer model (i.e. Factor Loading)

| | | Outer loadings | |
|-----------------------|------------|------------------|----------|
| Constructs | Indicators | Point estimation | T-values |
| Assurance | ASS_1 | 0.795 | 30.733 |
| | ASS_2 | 0.861 | 59.502 |
| | ASS_3 | 0.744 | 28.967 |
| | ASS_4 | 0.780 | 28.242 |
| | ASS_5 | 0.827 | 35.968 |
| | ASS_6 | 0.774 | 24.153 |
| | ASS_7 | 0.722 | 19.395 |
| Customer Satisfaction | CS_1 | 0.900 | 55.225 |
| | CS_2 | 0.911 | 84.764 |
| | CS_3 | 0.917 | 88.408 |
| | CS_4 | 0.857 | 68.066 |
| Empathy | EMP_1 | 0.681 | 17.421 |
| | EMP_2 | 0.854 | 51.711 |
| | EMP_3 | 0.695 | 19.539 |
| | EMP_4 | 0.675 | 16.892 |
| | EMP_5 | 0.811 | 44.690 |
| | EMP_6 | 0.568 | 12.283 |
| Price | PRI_1 | 0.875 | 63.850 |
| | PRI_2 | 0.886 | 49.771 |
| | PRI_3 | 0.914 | 88.864 |
| | PRI_4 | 0.896 | 81.679 |
| | PRI_5 | 0.855 | 47.337 |

Table 4.4 Estimation of outer model (i.e. Factor Loading) - Continued

| Constructs | Indicators | Outer loadings | |
|----------------|------------|------------------|----------|
| | | Point estimation | T-values |
| Reliability | REL_1 | 0.716 | 26.512 |
| | REL_2 | 0.740 | 23.800 |
| | REL_3 | 0.750 | 30.031 |
| | REL_4 | 0.649 | 17.944 |
| | REL_5 | 0.780 | 31.045 |
| | REL_6 | 0.687 | 21.049 |
| | REL_7 | 0.822 | 47.260 |
| Responsiveness | RES_1 | 0.709 | 21.451 |
| | RES_2 | 0.761 | 30.338 |
| | RES_3 | 0.710 | 21.276 |
| | RES_4 | 0.795 | 28.683 |
| | RES_5 | 0.811 | 40.368 |
| | RES_6 | 0.809 | 39.201 |
| | RES_7 | 0.825 | 49.073 |
| Tangibility | TAN_1 | 0.687 | 18.598 |
| | TAN_2 | 0.709 | 21.261 |
| | TAN_3 | 0.560 | 10.555 |
| | TAN_4 | 0.615 | 15.519 |
| | TAN_5 | 0.677 | 19.429 |
| | TAN_6 | 0.684 | 19.762 |
| | TAN_7 | 0.617 | 14.845 |
| | TAN_8 | 0.656 | 17.231 |
| | TAN_9 | 0.674 | 19.114 |

1.5.4 Discriminant Validity

Discriminant validity is extent measuring if the construct is indeed differing from each other's, in addition to measures the level of differences between the construct (Hair et al., 2014). The discriminant validity can be measured through different methods, such as, using Fornell & Larcker criterion, Heterotrait-Monotrait (HTMT) ratio of correlation, and cross-loading of indicators (Ab Hamid et al., 2017). To achieve this purpose, this study has been employed all methods mention above:

4.3.2.1 Fornell & Larcker:

The first one is Fornell & Larcker criterion which check discriminant validity of the constructs in the model by comparing the square root of the average variance extracted (AVE) of the construct with the correlation of other constructs in the model, Therefore, the square root of AVE should be higher than other correlation values among the latent variables (Fornell and Larcker, 1981). Referring to table (4.5) below, the square root of AVE for each constructs have greater value than correlations with other latent constructs, this implies that there is certainly discriminant validity.

Table 4.5 Discriminant validity check Using Latent Variables Correlations:

| | ASS | CS | EMPA | PRI | REL | RES | TANG |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|
| Assurance | 0.787 | | | | | | |
| Customer Satisfaction | 0.641 | 0.897 | | | | | |
| Empathy | 0.662 | 0.662 | 0.720 | | | | |
| Price | 0.549 | 0.735 | 0.661 | 0.885 | | | |
| Reliability | 0.714 | 0.678 | 0.680 | 0.654 | 0.737 | | |
| Responsiveness | 0.734 | 0.652 | 0.700 | 0.568 | 0.778 | 0.776 | |
| Tangibility | 0.586 | 0.487 | 0.564 | 0.446 | 0.663 | 0.651 | 0.655 |

4.3.2.2 Heterotrait-Monotrait (HTMT) Ratio of Correlation:

The second criterion is used to examine discriminant validity Heterotrait-Monotrait (HTMT) ratio of correlation, this criterion compares the correlation between each factor in the model. HTMT values should fail between 0 and 1 in order to show that there is a discriminant validity, when values are closed to 1, then it considered that there is lack of discriminant validity (Henseler et al., 2015).

According to result appears in table (4.6) below, which implies that all HTMT Values greater than 0 and less than 1, hence, this indicates that there is certainly discriminant validity.

Table 4.6 Discriminant validity check using the Heterotrait-Monotrait Ratio of Correlations (HTMT):

| | ASS | CS | EMPA | PRI | REL | RES | TANG |
|-----------------------|-------|-------|-------|-------|-------|-------|------|
| Assurance | | | | | | | |
| Customer Satisfaction | 0.690 | | | | | | |
| Empathy | 0.764 | 0.750 | | | | | |
| Price | 0.580 | 0.787 | 0.747 | | | | |
| Reliability | 0.803 | 0.755 | 0.801 | 0.722 | | | |
| Responsiveness | 0.815 | 0.716 | 0.815 | 0.620 | 0.885 | | |
| Tangibility | 0.657 | 0.531 | 0.667 | 0.484 | 0.761 | 0.737 | |

4.3.2.3 Cross-Loading of Indicator:

The last criterion used to examine discriminant validity test the cross loading technique of indicators, this method compares all indicators which load on their corresponding construct with cross loadings on the other constructs in the model which should be higher than other constructs loading (i.e. An indicator's outer loadings on a construct should be higher than all its cross loadings with other constructs). By using the Path Analysis procedure and based on cross loading values reported from the iteration process as shown in Table (4.7) below. Almost all of cross loading values in all indicators on their corresponding construct has higher value than relative latent indicators with other constructs. This leads us to conclude that the discriminant validity in each construct of the model is acceptable.

Table 4.7 Discriminant validity - Cross Loading:

| | ASS | CS | EMPA | PRI | REL | RES | TANG |
|-------|-------|-------|-------|-------|-------|-------|-------|
| ASS_1 | 0.795 | 0.545 | 0.539 | 0.470 | 0.575 | 0.612 | 0.449 |
| ASS_2 | 0.861 | 0.590 | 0.571 | 0.492 | 0.610 | 0.652 | 0.489 |
| ASS_3 | 0.744 | 0.595 | 0.520 | 0.589 | 0.621 | 0.550 | 0.453 |
| ASS_4 | 0.780 | 0.442 | 0.506 | 0.394 | 0.533 | 0.558 | 0.436 |
| ASS_5 | 0.827 | 0.473 | 0.542 | 0.376 | 0.568 | 0.580 | 0.489 |
| ASS_6 | 0.774 | 0.409 | 0.495 | 0.343 | 0.494 | 0.520 | 0.447 |
| ASS_7 | 0.722 | 0.402 | 0.455 | 0.268 | 0.494 | 0.548 | 0.465 |
| CS_1 | 0.635 | 0.900 | 0.597 | 0.638 | 0.638 | 0.596 | 0.425 |
| CS_2 | 0.565 | 0.911 | 0.567 | 0.589 | 0.589 | 0.597 | 0.441 |
| CS_3 | 0.570 | 0.917 | 0.605 | 0.612 | 0.588 | 0.586 | 0.446 |
| CS_4 | 0.526 | 0.857 | 0.600 | 0.778 | 0.611 | 0.557 | 0.434 |
| EMP_1 | 0.415 | 0.388 | 0.681 | 0.425 | 0.424 | 0.455 | 0.365 |
| EMP_2 | 0.527 | 0.610 | 0.854 | 0.629 | 0.569 | 0.606 | 0.437 |
| EMP_3 | 0.531 | 0.431 | 0.695 | 0.392 | 0.450 | 0.493 | 0.362 |
| EMP_4 | 0.335 | 0.380 | 0.675 | 0.448 | 0.414 | 0.410 | 0.263 |
| EMP_5 | 0.607 | 0.586 | 0.811 | 0.555 | 0.613 | 0.597 | 0.516 |
| EMP_6 | 0.397 | 0.393 | 0.568 | 0.343 | 0.417 | 0.414 | 0.465 |
| PRI_1 | 0.515 | 0.699 | 0.603 | 0.875 | 0.597 | 0.506 | 0.393 |
| PRI_2 | 0.446 | 0.611 | 0.576 | 0.886 | 0.555 | 0.475 | 0.399 |
| PRI_3 | 0.512 | 0.655 | 0.603 | 0.914 | 0.601 | 0.522 | 0.428 |
| PRI_4 | 0.496 | 0.655 | 0.578 | 0.896 | 0.602 | 0.524 | 0.409 |
| PRI_5 | 0.456 | 0.625 | 0.564 | 0.855 | 0.533 | 0.486 | 0.345 |

Table 4.7 Discriminant validity - Cross Loading: continued

| | ASS | CS | EMPA | PRI | REL | RES | TANG |
|-------|-------|-------|-------|-------|-------|-------|-------|
| REL_1 | 0.556 | 0.519 | 0.531 | 0.476 | 0.716 | 0.598 | 0.554 |
| REL_2 | 0.547 | 0.498 | 0.554 | 0.441 | 0.740 | 0.562 | 0.492 |
| REL_3 | 0.514 | 0.493 | 0.531 | 0.503 | 0.750 | 0.593 | 0.484 |
| REL_4 | 0.465 | 0.411 | 0.404 | 0.399 | 0.649 | 0.477 | 0.462 |
| REL_5 | 0.497 | 0.517 | 0.467 | 0.519 | 0.780 | 0.527 | 0.435 |
| REL_6 | 0.487 | 0.420 | 0.420 | 0.382 | 0.687 | 0.573 | 0.490 |
| REL_7 | 0.606 | 0.606 | 0.573 | 0.612 | 0.822 | 0.670 | 0.512 |
| RES_1 | 0.506 | 0.484 | 0.486 | 0.428 | 0.571 | 0.709 | 0.513 |
| RES_2 | 0.564 | 0.504 | 0.590 | 0.455 | 0.630 | 0.761 | 0.530 |
| RES_3 | 0.494 | 0.414 | 0.512 | 0.343 | 0.500 | 0.710 | 0.477 |
| RES_4 | 0.586 | 0.463 | 0.532 | 0.404 | 0.568 | 0.795 | 0.526 |
| RES_5 | 0.587 | 0.505 | 0.526 | 0.474 | 0.643 | 0.811 | 0.505 |
| RES_6 | 0.645 | 0.551 | 0.559 | 0.485 | 0.648 | 0.809 | 0.454 |
| RES_7 | 0.588 | 0.588 | 0.588 | 0.475 | 0.644 | 0.825 | 0.534 |
| TAN_1 | 0.408 | 0.356 | 0.350 | 0.261 | 0.379 | 0.411 | 0.687 |
| TAN_2 | 0.327 | 0.321 | 0.350 | 0.244 | 0.396 | 0.404 | 0.709 |
| TAN_3 | 0.240 | 0.153 | 0.264 | 0.149 | 0.244 | 0.235 | 0.560 |
| TAN_4 | 0.310 | 0.260 | 0.354 | 0.244 | 0.376 | 0.368 | 0.615 |
| TAN_5 | 0.404 | 0.314 | 0.411 | 0.281 | 0.438 | 0.452 | 0.677 |
| TAN_6 | 0.431 | 0.348 | 0.410 | 0.342 | 0.517 | 0.473 | 0.684 |
| TAN_7 | 0.331 | 0.237 | 0.289 | 0.232 | 0.390 | 0.427 | 0.617 |
| TAN_8 | 0.464 | 0.402 | 0.435 | 0.370 | 0.553 | 0.500 | 0.656 |
| TAN_9 | 0.437 | 0.358 | 0.394 | 0.400 | 0.494 | 0.466 | 0.674 |

4.4 Assessment of Structural Model

The assessment of structural model in this study consists of three different tests: coefficient of determination (R^2), path coefficient (β values) and Path Significant (p-value).

4.4.1 Coefficient of Determination R^2 for the Structural Model:

As shown in Figure (4.5) below, the coefficient of determination (R^2) equal to 0.649, which means that 64.9% from of the variance in the customer satisfaction can be explained by the six latent variable (tangibles, reliability, responsiveness, assurance, empathy, and price). The inner model shows the effect of latent variable as shown in figure (4.4) from strongest one “price” respectively to low effect variable “tangibility”.

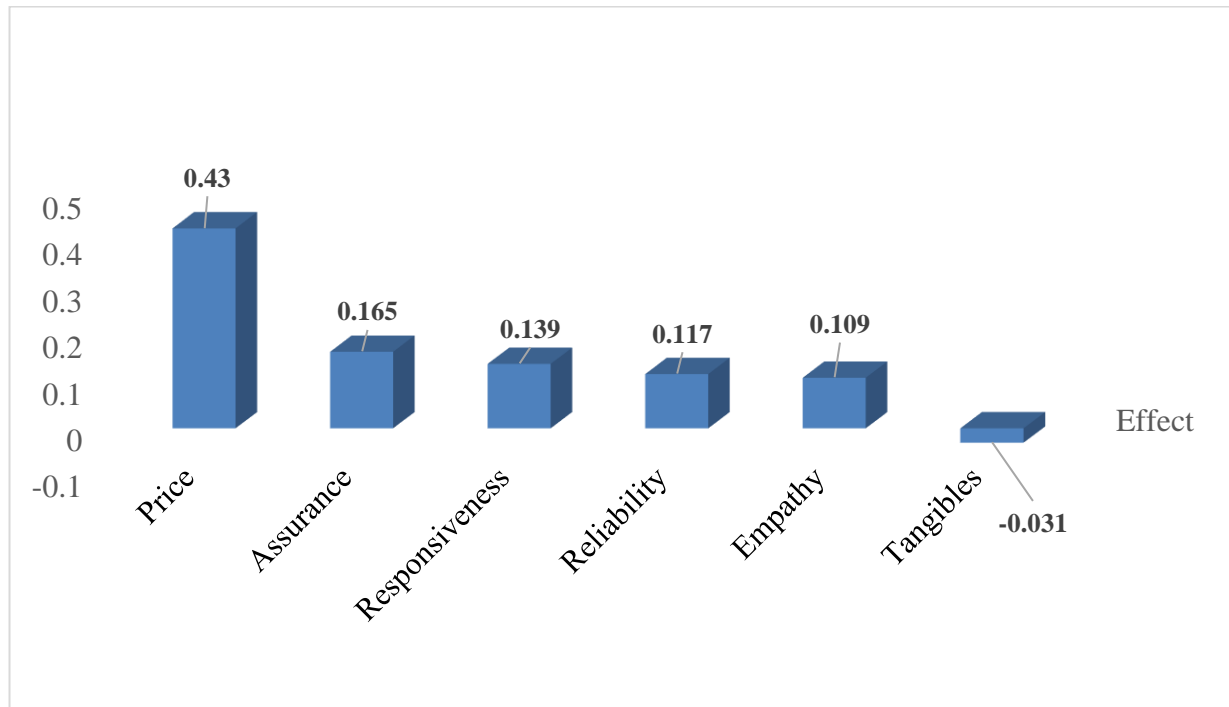


Figure 4.4 Inner model (Latent Variables) effect.

According to Rossiter (2002) that set cutoff threshold value for coefficient of determination (R^2) of latent variable, it should be more than 0.5 and, Cohen et al. (2003) which also determines coefficient of determination (R^2) for good model should more than 0.26. Since coefficient of determination (R^2) value for the proposed model is 0.649 which is greater than the cutoff threshold values (0.5 and 0.26), this implies that the model is considered to have significant degree of explained variance of customer satisfaction by latent factors.

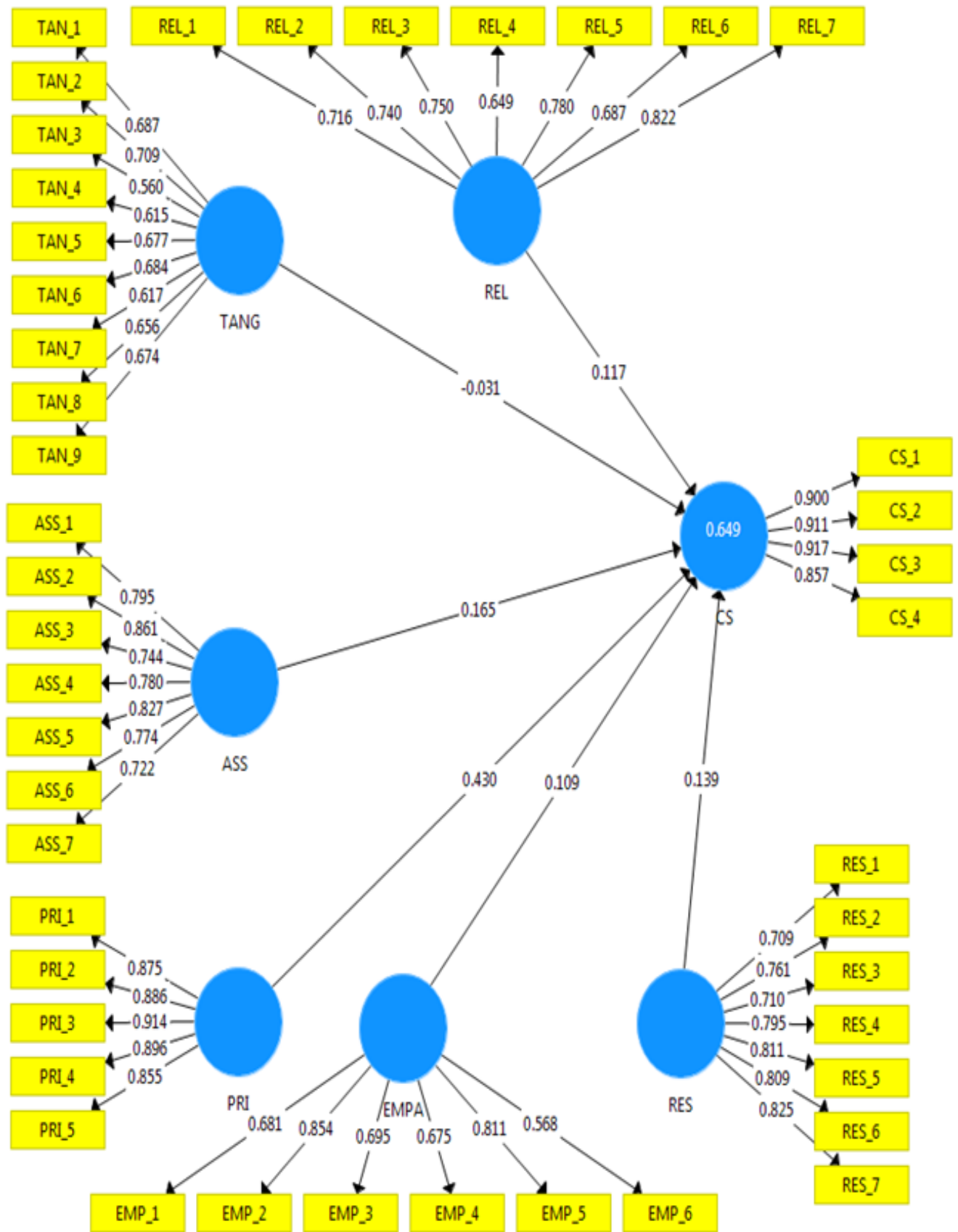


Figure 4.5 PLS path modelling estimation of the research model.

4.4.2 Path Coefficients (β values) and Statistical Significance (t-values) for the Structural Model:

This step determines the path coefficients (β) for latent variables and compares between all paths. Latent variable that have the highest β value can be judged as being the strongest predictor towards the construct (Aibinu and Al-Lawati, 2010). The minimum value of path coefficients (β) should be more than 0.1 (Eggert and Serdaroglu 2011). However, the statistically significant values can be obtained by performing nonparametric bootstrapping technique. (Hair et al. 2013) defined that acceptable t-values for two-tailed test are 1.96 (95% of confidence level). Bootstrapping compute statistically significant (t values) consisting of 500 sample as a default setting (Hair et al. 2013). Table (4.8) below presents the path coefficient (β) and statistical coefficient (t- statistics) values.

Table 4.8 Path Coefficient of the structural Model:

| Relationship | Path Coefficient (β) Value | Standard error | T- statistics | P-value | Conclusion |
|--------------|------------------------------------|----------------|---------------|---------|---------------------|
| TANG -> CS | -0.031 | 0.041 | 0.749 | 0.454 | H1 is not supported |
| REL -> CS | 0.117 | 0.056 | 2.076 | 0.038 | H2 is supported |
| RES -> CS | 0.139 | 0.058 | 2.386 | 0.017 | H3 is supported |
| ASS -> CS | 0.165 | 0.055 | 2.974 | 0.003 | H4 is supported |
| EMPA -> CS | 0.109 | 0.055 | 1.995 | 0.047 | H5 is supported |
| PRI -> CS | 0.430 | 0.044 | 9.776 | 0.000 | H6 is supported |

According to the result which is shown above, we can find that the highest path coefficient (β) and statistical coefficient (t- statistics) value is the price variable, hence, this means that the most significant construct which directly influences the customer satisfaction, while the variables (price, reliability, responsiveness, assurance, empathy) almost have the same range of β and t- statistics values, and also have significant influences on customer satisfaction, but not in the same level of price. So we can supported the hypothesis based on previous evidences. On the other hand, we found that the last variable “tangibles” has negative β and t- statistics values 0.749 which is less than the minimum accepted level for a two-tailed test 1.96, which indicate that there is no significant relation between tangibility and customer satisfaction.

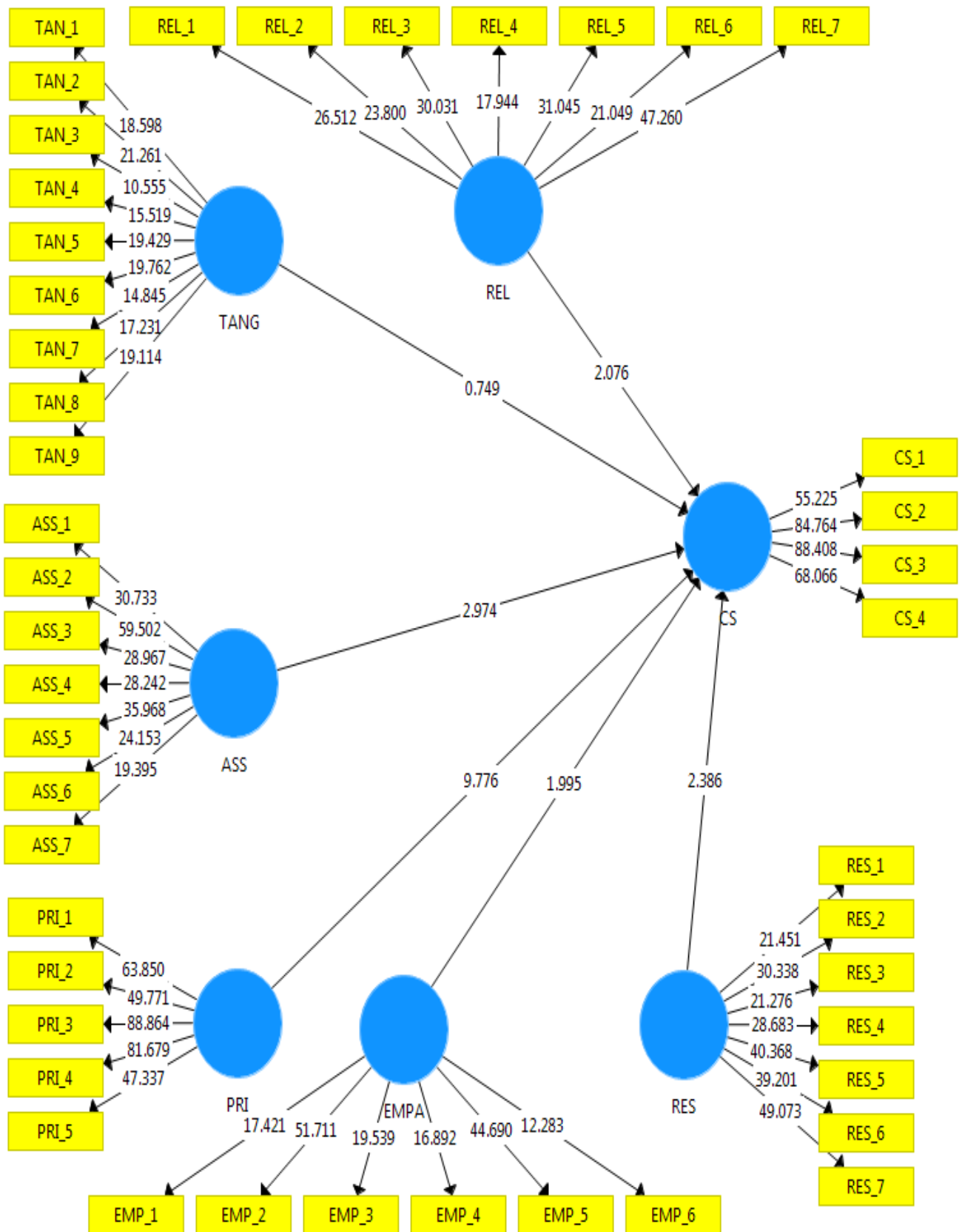


Figure 4.6 Model fit estimation using bootstrapping procedure.

This study used Statistical Package for the Social Sciences “SPSS” software to double check the validity of result by using multi-regression analysis which is shown in table 4.9 below:

Table 4.9 regression analysis result using SPSS:

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|----------------|-----------------------------|------------|---------------------------|--------|------|-------------------------|-------|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| (Constant) | -.470 | .163 | | -2.893 | .004 | | |
| Tangibility | -.048 | .042 | -.048 | -1.138 | .256 | .504 | 1.984 |
| Reliability | .117 | .056 | .117 | 2.079 | .038 | .285 | 3.511 |
| Responsiveness | .152 | .055 | .152 | 2.758 | .006 | .297 | 3.368 |
| Assurance | .143 | .048 | .143 | 2.977 | .003 | .391 | 2.561 |
| Empathy | .114 | .049 | .114 | 2.357 | .019 | .381 | 2.622 |
| Price | .424 | .044 | .424 | 9.599 | .000 | .462 | 2.164 |
| Gender | -.089 | .069 | -.041 | -1.289 | .198 | .900 | 1.111 |
| Area | .055 | .096 | .019 | .570 | .569 | .799 | 1.252 |
| Age | .010 | .004 | .087 | 2.654 | .008 | .837 | 1.195 |
| Jawwal | .228 | .090 | .103 | 2.535 | .012 | .545 | 1.834 |
| Wataniya | .005 | .120 | .002 | .042 | .966 | .599 | 1.669 |

It seems that there is similarity in results obtained from both structural and regression models. More specifically, results from regression models also suggest that tangibility is the only insignificant variable. Hence, we conclude that there is validity in our results.

In order to add values to this study some controlling variables such as (gender, age, area, and company name) were added to the regression analysis. Here are the results:

- Gender

Results suggest insignificant relationship between gender and satisfaction. In other words, satisfaction does not change among female and male.

- Area

In order to test the place of residence to the degree of customer's satisfaction, the area variable was added to the regression model. Results show that there is no difference in satisfaction between Gaza and west Bank customers, since p-value is 0.569 (the satisfaction rate doesn't depend on the location of customers).

- Age

As we can see from the table 4.9, age is considered to be significant. In particular, results suggest a positive relationship between age and customers satisfaction. Hence, the older the customer is, the more he or she satisfied.

- Company Name

The company name variable takes value 1, if the customers uses Jawwal 2, if the customers uses Wataniya and 3 if he or she uses both companies (Jawwal and Wataniya). Findings suggest that satisfaction differs among Jawwal and Wataniya customers. More specifically, results indicate that Jawwal customers are more satisfied with their operator compared to those who use only Wataniya or use both Jawwal and Wataniya.

5. CHAPTER V: CONCLUSIONS and RECOMMENDATIONS

5.1 Introduction

This chapter illustrated the brief summarization of the main results and findings of this study, in addition to that, the contributions, implications, limitations, and suggestions for future researches based on the analysis presented in chapter 4 above.

5.2 Conclusions

The main goal of this study is to measure the effect of six dimensions predefined in chapter 1, which are (tangibles, reliability, responsiveness, assurance, empathy, and price) on customer satisfaction in mobile telecom industry in Palestine.

According to analysis of data collected from 400 customers, who encounter the services from the two main companies in Palestine which are Palestine Cellular Communications Company “Jawwal” and Wataniya Mobile Palestine, the result which is shown, that there is a significant correlation between quality service dimensions of the model and customer satisfaction, while this relationship appears in five dimensions expect which are : The first dimensions in the model that has the highest impact on customer satisfaction is the price, since the price is considered as the most important factor, that customers begin with when they try to compare between the two companies with regardless to the others five dimensions, the second dimension that has positive relation with customer satisfaction is assurance, this dimension is measure the ability of the company to convey trust, confidence, and demonstrate knowledge to the customers, as obvious from result that the customers willing to reinforce the assurance perspective in their interactions between the company and customer. On the other hand, responsiveness has third level of impact on customer’s satisfaction, this means, that the customers take care from the readiness of serve customers immediately and being available to help them. Otherwise reliability has also impact on the customer’s satisfaction, but it is ranked in the fourth level of effect on customer’s satisfaction, this implies that customer’s looking for fulfillment of what company promised before. The last predictor that has impact on customer satisfaction is empathy, this means, that customers pay attention for caring and individual attention given to them.

According to the results and findings presented in chapter 4, Tangibility is not considered a critical aspect for customer’s satisfaction which has low level of impact on customer satisfaction, this indicates that the appearance of physical facilities, equipment, personnel, and

communication materials have low impact on the customers satisfaction, this may be refer to many aspects, such as short service or waiting time that couldn't give customers the opportunity to draw their attention to all physical aspects in the service place. On the other hand, customers may be haven't looking forward to tangibility aspect, since they are saturated from it or companies pay attention from this aspect which make customers don't interested in it. Furthermore, companies transform most of its services from manual to online service, and deal with all customer's requirement through their accounts managers who support their customers by phone.

5.3 Contributions

As theoretical contribution, this research contributes by extending the dimensions of SERVQUAL model by adding and testing the new pricing dimension to another existed dimensions.

According to the results of this study, that show that there is positive relationship between service quality dimensions and customer's satisfaction, this leads that mobile telecom companies should concentrated on service quality, and find which type of dimensions directly effect on their customer's satisfactions by conducting several studies to reach this purpose. In addition to that, companies should conduct different training courses to their teams, especially the front office employees who contact customers directly, such as, communications skill training, negotiations skills and knowledge management training course.

5.4 Research Limitations

This thesis faces some limitations that are not considered as aspects that will affect the results of this study, the first limitation is persuading the customers that this type of study will give them benefits in regards with company policy, offering packages, and meet their needs in their service encountered after, the second limitations is lake of corporations from companies to support this study, since their policies prevent the communication with customers in their showrooms, whereas this study can directed them to concentrate on the gaps appear between them and customers and they can try fill these gaps.

5.5 Suggestions for Future Research

This thesis was conducted on customers from both Palestinian companies Jawwal and Wataniya, and it has different limitations as discussed above. Therefore, the management of both companies need to pay attention to the results of the proposed model in their marketing

studies in order to reach their objectives, however, this study can present some suggestions that can support and facilitate any other futures research opportunities:

1. Study the service quality model that is adopted in this study and measure it if it covers all aspects that would meet their needs or if they are applicable in their working environment.
2. Any researcher or company interested in this field can proceed with thesis outcomes.
3. Concentrate on the main findings and result of this thesis in order to maximize the benefits from this type of studies which greatly changed over the years.
4. Use sample size larger than the one taken in this thesis in order to assure that it covers all geographic areas and segments of customers, because this would cost more.
5. Considering the value from conducting this type of research from company perceptive, since customer's satisfaction directly affect company's financial aspects.
6. Further studies can take other dimensions in their model such as e-services since this industry somehow depends on this technology.

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Appendices

Relations between customer's satisfaction and quality of services in mobile telecom industry in Palestine questionnaire

Dear Customer,

Student Ayman Dwikat is one of the master quality management students at Arab American university of Jenin (AAUJ), he prepared this questionnaire for measuring “the relations between customer's satisfaction and quality of services in mobile telecom industry in Palestine questionnaire”, hence he will submit this thesis as partial fulfillment of the thesis requirements for the Master's degree in Quality Management, please read and fill all parts of it accurately and in an effective manner, note that this questionnaire will be used for academic purpose only and will be considered as fully confidential.

- Hope that you read all parts accurately and objectivity, please put (✓) beside the most suitable answer:

Part 1: personal information about customer

| Code | Question |
|-------|--|
| PER 1 | Age in Years : |
| PER 2 | Gender : <input type="checkbox"/> Male <input type="checkbox"/> Female |
| PER 3 | Area : <input type="checkbox"/> West Bank <input type="checkbox"/> Gaza |
| PER 4 | Company: <input type="checkbox"/> Jawwal <input type="checkbox"/> Wataniya Mobile |
| PER 5 | Program used : <input type="checkbox"/> Prepaid <input type="checkbox"/> Postpaid <input type="checkbox"/> Mix |

Part 2: Tangibility effect on customer's satisfaction (physical appearance of personnel, facilities and equipment)

| Code | Question | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------|---|-------------------|----------|----------------------------|-------|----------------|
| TAN 1 | External, internal appearance of service place is attractive. | | | | | |
| TAN 2 | Service place and facilities are Keeping pace with modern technology. | | | | | |
| TAN 3 | Showrooms and facilities contain air conditions. | | | | | |
| TAN 4 | Showrooms and facilities contain suitable waiting areas without any overcrowding. | | | | | |
| TAN 5 | Availability of all Advertising material in their showrooms. | | | | | |
| TAN 6 | Company provides privacy and conditionality | | | | | |
| TAN 7 | Company uses Ticket Queue System for customers | | | | | |
| TAN 8 | Company provides customers with wireless internet | | | | | |
| TAN 9 | Service place has parking for customers. | | | | | |

Part 3: Reliability effect on customer's satisfaction (provide customers what was promised carefully)

| Code | Question | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------|---|-------------------|----------|----------------------------|-------|----------------|
| REL 1 | Service provided in specific time manner. | | | | | |
| REL 2 | Employee only executed services needed from customers | | | | | |
| REL 3 | Accurately billing customers without any mistakes. | | | | | |
| REL 4 | Each customer has unique profile in their system. | | | | | |
| REL 5 | Company doesn't activate unneeded services. | | | | | |
| REL 6 | Sign each customer on all details documents. | | | | | |
| REL 7 | There is no misleading services or packages for the customers | | | | | |

Part 4: Responsiveness effect on customer's satisfaction (readiness to serve customers immediately)

| Code | Question | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------|---|-------------------|----------|----------------------------|-------|----------------|
| RES 1 | Customer receives service immediately when he/she enters showroom. | | | | | |
| RES 2 | Encountered service for customer when he/she requests it directly. | | | | | |
| RES 3 | Employee willingness to serve customers without hesitation. | | | | | |
| RES 4 | Employee explores the service in details for customers. | | | | | |
| RES 5 | Employee explores the policies and procedures regarding service in details for customers. | | | | | |
| RES 6 | Customers complains are handled effectively and clearly by the Company. | | | | | |
| RES 7 | Company explore all aspects related service subscriptions in details. | | | | | |

Part 5: Assurance effect on customer's satisfaction (convey trust and confidence, and demonstrate knowledge)

| Code | Question | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------|--|-------------------|----------|----------------------------|-------|----------------|
| ASS 1 | Customer feels safe while communicating with the employee. | | | | | |
| ASS 2 | Customer feels safe during executions of the services delivered. | | | | | |
| ASS 3 | Customer feels safe regarding monthly bill issued after received services. | | | | | |
| ASS 4 | Knowledge and skills acquired by employees make customers feel safe | | | | | |
| ASS 5 | Employee enhance safety for the customer when facing problem. | | | | | |
| ASS 6 | Employee's flexibility in providing the service enhances the safety of the customer. | | | | | |

| | | | | | | |
|-------|--|--|--|--|--|--|
| ASS 7 | Ethics and tact in dealing with the customers enhances their safety. | | | | | |
|-------|--|--|--|--|--|--|

Part 6: Empathy effect on customer's satisfaction (care and individual attention given to customers)

| Code | Question | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------|---|-------------------|----------|----------------------------|-------|----------------|
| EMP 1 | Customers' expectations that the employee has ability to discover their needs. | | | | | |
| EMP 2 | Employee understands customer's financial and psychological aspects when dealing with them. | | | | | |
| EMP 3 | Employee deals with the customers in a humane manner. | | | | | |
| EMP 4 | Employee understands the customer's at personal level. | | | | | |
| EMP 5 | All customers are treated equally without differentiating. | | | | | |
| EMP 6 | Working hours meet customer's needs. | | | | | |

Part 7: price effect on customer's satisfaction (services and packages price)

| Code | Question | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|-------|---|-------------------|----------|----------------------------|-------|----------------|
| PRI 1 | The prices of calls within the same network are suitable and meet customers' needs. | | | | | |
| PRI 2 | The prices of calls on competitor's side are suitable and meet customers' needs. | | | | | |
| PRI 3 | The prices of international calls are suitable and meet customers' needs. | | | | | |
| PRI 4 | The prices of internet packages are suitable and meet customers' needs. | | | | | |
| PRI 5 | The prices of local calls are suitable and meet customers' needs. | | | | | |

Part 8: overall Customer Satisfaction

| Code | Question | Strongly Dissatisfied | Dissatisfied | Neither Satisfied nor Dissatisfied | Satisfied | Strongly Satisfied |
|------|--|--------------------------|--------------|---|-----------|-----------------------|
| CS 1 | I am satisfied with the quality of service provided | | | | | |
| CS 2 | service provided by the company meets my expectations | | | | | |
| CS 3 | I am satisfied with the service provided. | | | | | |
| CS 4 | I am satisfied with the prices of services and products. | | | | | |

ادت هذه الدراسة الى المساهمة من ناحية عملية في خدمة قطاع الاتصالات من حيث تحديد الجوانب الاكثر اهمية من وجهة نظر المشتركين والتي يمكن لشركات الاتصالات التركيز عليها لرفع مستوى رضا مشتركها، اما من ناحية نظرية فقد اضافة الدراسة عنصر جديد الى نموذج SERVQUAL بواسطة إضافة "عنصر السعر" والذي كان له على تأثير على قوة العلاقة مع رضا المشتركين.

ملخص الرسالة :

ترتبط جودة الخدمة ورضا المشتركين ببعضهما البعض بشكل كبير، حيث تم دراسة علاقة جودة الخدمة ورضا المشتركين من خلال العديد من الأبحاث وذلك من أجل فحص تأثير جودة الخدمة على رضا العملاء، حيث اثبت العديد من الباحثين أن هناك علاقة إيجابية بين جودة الخدمات ورضا المشتركين، كما ان هناك ارتباط لها باداء الشركة المالي.

نظراً لندرة الدراسات والأبحاث حول هذا الموضوع والقطاع في فلسطين، فإن هذه الرسالة هدفت الى قياس العلاقة بين جودة الخدمة ورضا العملاء في قطاع الاتصالات الخلوية في فلسطين. ولتحقيق هذا الهدف فقد تبنت هذه الرسالة نموذج جودة الخدمة الذي يركز على ستة أبعاد رئيسة هي (الجوانب الملموسة، والاعتمادية، والاستجابة، والأمان، والتعاطف، والسعر)، وقد استندت هذه الدراسة الى نموذج SERQUAL العالمي والمستخدم بشكل كبير لنفس الاهداف المرجوة من البحث في بناء هذه نموذج الرسالة، واعتمادا على الابعاد السابقة تم وضع الفرضيات البحثية المستخدمة لاختبار مشكلة البحث " العلاقة بين رضا المشتركين وجودة الخدمات في قطاع الاتصالات الخلوية في فلسطين " علما ان الفرضيات كانت على النحو التالي:

الفرضية الأولى: يوجد علاقة بين الجوانب الملموسة ورضا المشتركين.

الفرضية الثانية: يوجد علاقة بين الاعتمادية ورضا المشتركين.

الفرضية الثالثة: يوجد علاقة بين الاستجابة ورضا المشتركين.

الفرضية الرابعة: يوجد علاقة بين الأمان ورضا المشتركين.

الفرضية الخامسة: يوجد علاقة بين التعاطف ورضا المشتركين.

الفرضية السادسة: يوجد علاقة بين السعر ورضا المشتركين.

من أجل دراسة العلاقات التي تفسر وجود او عدم وجود علاقة بين جودة الخدمة ورضا المشتركين، فقد تم العمل على جمع 400 استبانة من مشتركين كل من شركة الاتصالات الخلوية الفلسطينية "جوال" والوطنية موبايل في فلسطين، حيث تم اجراء كافة الاختبارات لفحص علاقة المتغيرات الخارجية والداخلية ببعضها البعض من خلال التحقق من صدق الأدوات وثباتها ومعامل الارتباط وغيرها من الاختبارات.

بالاستناد الى نتائج الدراسة فقد اظهرت تلك النتائج وجود علاقة إيجابية بين جودة الخدمة ورضا المشتركين، من حيث السعر، والأمان، والتعاطف، والاستجابة، والاعتمادية، وذلك على الترتيب من حيث قوة العلاقة، في حين اظهرت النتائج الى عدم تأثير الجوانب الملموسة على رضا المشتركين.