An-Najah National University

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Service System Development for Sustainable Competitive Advantage The Case of Palestinian Telecom Industry

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Dedication

In memory of my Father (Mercy upon him)

To my mother may God give her health and strength

To my wife and children (Bashar & Bana) for their endurance

To my brothers and sisters

Acknowledgement

First of all, praise to Allah for helping me in making this thesis possible.

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Special thanks to all respondents of the questionnaire, Maannews agency that announced the questionnaire and telecom experts who accepted my invitations for interviews.

الاقرار

أنا الموقع أدناه مقدم الرسالة التي تحمل العنوان:

Service System Development for Sustainable Competitive Advantage
The Case of Palestinian Telecom Industry

أقر بأن ما اشتملت عليه هذه الرسالة إنما هي نتاج جهدي الخاص، باستثناء ما تمت الإشارة إليه حيثما ورد، وأن هذه الرسالة ككل، أو أي جزء منها لم يقدم من قبل لنيل أية درجة علمية أو بحث علمي أو بحثي لدى أية مؤسسة تعليمية أو بحثية أخرى.

Declaration

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

Student Name: **اسم الطالب:**

Signature: **التوقيع:**

Date: **التاريخ:**

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List of Abbreviations

ATM	Asynchronous Transfer Module
BAH	Booz-Allen-Hamilton Model
BSA	Bit Stream Access to internet
CIA	The Central Intelligence Agency
CIT	Critical Incident Techniques
CS	Customer Satisfaction
CV	Customer Value
DSL	Digital Subscriber Line
ETOM	Enhance Telecom Operations Map
FTTH	Fiber to the Home
GDP	Gross Domestic Product
GSM	Global System for Mobile
IPVPN	Internet Protocol- Virtual Private Network
ISO	International Organization for Standardization
ISP	Internet Service Provider
IT	Information Technology
ITU	International Telecommunication Union
IVR	Interactive Voice Response
LLU	Local Loop Unbundling
MOT	Ministry of Telecom
MS	Microsoft Windows
NPD	New Product Development
NSD	New Service Development
OSS	Operations Support Systems
PCBS	Palestinian Central Bureau of Statistics
QFD	Quality Function Deployment
ROI	Return on Investment
RADV	Regression Analysis with Dummy Variables
SQ	Service Quality
SWOT	Strength, Weakness, Opportunity, Threat
USA	United States of America
VOIP	Voice over Internet Protocol
VDSL	Very high speed Digital Subscriber Line
WiMAX	Worldwide Interoperability for Microwave Access
3G	Third Generation Mobile Network

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Abstract

Economy has shifted from a product oriented market to a service driven one. For that, this master thesis seeks to assess and analyze current service systems of telecom industry in Palestine. The study aims to explore a framework for new service development process, which is suitable for telecom industry in Palestine. The problem statement of this study is related to how to define, design, and deliver new services that sustain competitive advantage for the company.

The thesis includes mixed approaches of research; unstructured interviews and practitioner observation were the research tools to evaluate current service systems of telecom industry in Palestine. The researcher selected the SERVQUAL scale for customer perception analysis. The final tool was semi structured interviews with telecom experts from Palestine to learn from their experience as a Prospective Service Development Analysis.

After analyzing the data, it was found that the Palestinian companies have in-house developed service systems. However, these systems are still immature, and customer perception analysis showed a significant difference (negative gaps) between actual perceived services and customer

expectation. This is due to high expectation of customers against low level of perceived telecom services. As a result, it was possible to develop a framework for new service development process suitable for telecom industry in Palestine that considers environmental space of telecom market in Palestine.

Chapter One

Introduction

1.1 Chapter Overview

chapter will provide an introduction to the study carried out. It consists of subheading concerning services background, problem statement, research questions, expected outcome and the structure of the thesis. Adding to that, it includes a brief description of telecom industry milestones in Palestine. Thus, the chapter will enable the reader to understand this research, and enrich his/her knowledge about the subject of the study.

1.2 Services Background

In most countries, especially with regards to the developed world, economy has been shifted from product to service driven markets. Moreover, competition based on product diversity has been fading. This evolution pushed companies to look for new business opportunities, adding on the new demands of customized solutions and the technology trends. All of these factors and others set a fruitful base for a service industry revolution.

Companies are increasingly supporting New Service Development (NSD) to enhance their growth and competitiveness, which sustain prosperity or at least survive in the dynamically-changing markets. As a result, great attention towards scholarly research on NSD has been noticed

during the past decades (Johne and Storey, 1998). Services have become the largest part of most industrialized nations' economies over the past three decades (Spohrer et al, 2007). The CIA World Factbook reported that the service sector represented more than seventy nine percent of the USA Gross Domestic Product (GDP) in the year of 2012 and more than fifty five percent of the Palestinian GDP in the year of 2010.

Quinn et al (1987) provided comprehensive definition of services. Namely, services are "all economic activities whose output is not a physical product or construction, is generally consumed at the time it is produced and provides added value in forms (such as convenience, amusement, timeliness, comfort or health) that are essentially intangible concerns of its first purchaser" (as cited in Zeithaml and Bitner, 2003, p3). However, it is important to distinguish between services and goods and their development process. Zeithaml et al (1985) determined the characteristics of services which explain essential differences between them and physical products. More specifically, the differences are intangibility, simultaneity or inseparability, heterogeneity and perishability. Furthermore, the difference between services and physical products also bring particular features to their development processes (Stevens and Dimitriadis, 2005). A study by Vermeulen and Dankbaar (2002) showed that several concepts related to the new product development (NPD) are applicable to service industry. Johne and Storey (1998) added that developing a new service is usually more complex than developing a physical product as it needs to develop interaction process with customers

and their needs. In addition to the concept, they also pointed out that intangibility makes it difficult to test service concepts (Johne and Storey. 1998)

The literature related to NSD is still limited comparing to the NPD. However, the attention towards service development is growing, and many authors now consider the need to analyze NSD process (Stevens and Dimitriadis, 2005). According to Johnson et al (2000), a number of models describe and explain in different ways and from different perspectives how to develop new services. Some of these models extend service development to include exiting services in addition to the new ones (Lievens et al, 1999).

The telecom industry is becoming among the most important industries in the world, which include the delivery of voice, data, and video services at ever increasing speeds. This industry influenced the world economy in the year of 2004 with an average of 3.5 percent, and in numbers, the world revenue of the telecom industry in the same year was estimated to be $1.2 trillion (Intentional Telecommunication Union, 2006). According to Palestinian Central Bureau of Statistics (PCBS, 2012), telecom industry represented 5.1-6.5 percent of Palestinian GDP during the years 2008-2011. However, telecom industry is different from other services such as educations and health, because the telecom industry has specific characteristics that differentiate telecom services from other services. In particular, telecom services evolve very quickly and are customized according to customer need and offered in extremely

competitive markets. Thus, telecom firms do their best to offer differentiated and up to date services to sustain current subscribers and attract others.

1.3 Problem Statement

The revolution of service industry initiated debate about service development. Although Rathwell (1974) asserted that new services just happen spontaneously, most researchers believe that successful services are developed through organized and structured development processes (Bowers, 1989; Scheuing and Johnson, 1989). Indeed, the market trends towards services rather than physical products, while open and global competition reinforces the need to follow service development process. As a result, new debates have been raised about the most effective process achievable, with some studies claiming that more formal processes lead to more successful services. However, others believe in less formal or informal processes such as innovation and holistic processes as more effective process.

Although the service sector represents the most important sector of the world's economy, it is the least a studied part of the economy (Spohrer et al, 2007). Bullinger et al (2003) found after reviewing services development literature that NSD had been largely neglected for a long time in both practice and service research. Although a number of academic works on NSD got published in literature back in the 1970s and 1980s, they added up to no more than a relatively rudimentary discussion. Then, it

gained momentum during the last twenty years; but, NSD is still immature, and a lot of researches conduct studies in this complex field in order to deepen their understanding of system components and relations in order to reach consensus on a well formalized model.

The case in Palestine is still lagging, even when there is awareness regarding the importance of the service system development. In practice among Palestinian organizations and companies, the concept of service development process is new and unorganized, and there are growing attempts to construct a suitable process for the Palestinian case. However, these attempts depend on developing experience for themselves, and fast responses towards the market and competitors. Thus, the output processes are still unstable, with continuous need for radical improvement.

On the other hand, telecom industry in Palestine has evolved rapidly similar to most countries in the word, and many new players have recently become active, leading to intensive competition of telecom services that include voice communications, data communications, and internet services. Thus, companies are increasingly seeking growth and innovation by developing more differentiating services. Although telecom industry, which is one of the best organized industries in Palestine, still needs a continuous scholarly research for NSD, such research that can be obtained from literature and experts is of great value in developing the best suitably for Palestinian telecom practices.

1.4 Research Questions

The service development process could be defined by three general stages: service definition, which includes all activities starting from formulating strategies up to service approvals and plans; service design, which represents different activities related to service articulating, integrating and testing; and finally, service delivery, which includes service introducing, ordering, activating and assessment. Thus, the purpose of this study was to deepen understanding of NSD process for the case of the telecom industry in Palestine by answering the following questions:

- How should one define a new service for telecom industry in Palestine?
- How should a new service in Palestinian telecom organizations be designed.
- How should a new telecom service in the Palestinian market be delivered and sustained in a continuous improvement of the NSD process?

1.5 Expected Outcome

This study aims to develop a framework for a process of the Service Development System, which is applicable for telecom industry in Palestine, and therefore to enhance the knowledge of managers about the importance of services business and help them in organizing their service development works to sustain continuous improvement. As a result, it is possible to say

that the study aims to contribute to the development of service industry in Palestine with more attention to the telecom industry.

1.6 Brief about Telecom Industry in Palestine

Before the Oslo agreement between Israelis and Palestinians in 1993, the Israeli occupation was responsible for providing telephone service to Palestinians. At that time, the service was available in limited areas, mainly in the cities, and few customers within each area were able to get the service. During 1994-1996, the responsibility of telephone services moved into Palestinian control, which saw the installation of networks all over the West Bank and Gaza strip and provided services to subscribers, but the progress was slow due to shortage of funding and resources. In 1997, Paltel, a private company, bought the Palestinian telephone network and got a license to provide telecom services over the West Bank and Gaza Strip, which included land line phone services, wireless phone, and data services.

Since then, Paltel started to implement parallel projects over the country aiming to reach every home; and a few years later, the number of subscribers rose from 110K in 1997 to 348K in 2005 and 396K in 2012 (Paltel Annual report, 2007, 2012). However, Paltel provided land line phones services only. Since 1999 Paltel built GSM network and introduced wireless phone (mobile) services, and established a subsidiary company to manage it called Jawwal. On a parallel to mobile network, Paltel built data networks based on ATM technology and during the year of 2000 had

launched data services (leased lines and frame relays) targeting corporate customers. On the other hand, a limited number of companies were started to provide internet services to Palestinian customers via dial-up connection over Paltel telephones lines, and used data lines for corporate customers who asked for high speeds internet and data communication. However, the internet market was slow and limited for a certain segment of the population till the end of 2004.

By the beginning of 2005, internet market was revolutionized when Paltel introduced free subscription to the internet over fixed telephone lines in a corporation with virtual internet service providers (ISPs), and followed by other boost by the beginning of 2006 when launched broadband services. Later on, in 2007, Paltel launched IP-VPN service for corporate customers only.

Thus, competition began to emerge during 2005-2008 in the telecom market and mainly for internet services. Also, even the role of IPSs was limited to reselling services as virtual ISPs, more than ten ISPs got to market. On the other hand, Wataniya mobile became authorized to provide wireless services in Palestine as a second operator in this field.

The real competition of telecom industry in Palestine started in the year 2009, when Wataniya mobile launched wireless services to compete with Jawwal on one side, and both of them to compete with Paltel as wireless providers against land line phone provider. In the next year (2010), the Ministry of Communication (MOC) liberated the internet market by

announcing bit stream access to intent (BSA). According to the new module, Paltel had been limited to sell access lines (DSL) to subscribers and ISPs have been able to provide internet over these access lines (DSL). Since that time, ISPs were real ones as they started to provide internet services rather than reselling it. Moreover, ISPs started to compete with each other in providing internet and related value-added services to new customers and the existing ones as well.

Moreover, in the last few years, many competitive companies have entered to the market, and started to sell wireless internet, voice over IP (VOIP) and data services. On the other hand, there are a lot in the near future; both Jawwal and Wataniya mobile are waiting Israeli permissions to launch 3G services that include wireless internet, in addition to voice services. However, being aware of the threat of wireless internet, Paltel is looking for selling high speed internet access line by using new technologies such as VDSL and fiber to the Home (FTTH). Such high speed lines exceed attainable 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. Finally, the MOT is currently studying the local loop unbundling (LLU) module to be implemented in Palestine after the successful implementation of bit access to internet (BSA), considering that LLU will increase the competition by allowing providers to lease connection (copper pairs) from the telephone exchange to the customer’s premises.

We can conclude that the telecom industry in Palestine is effective and has high contribution to Palestinian economy, also Palestinian telecom companies offer up-to-date services. Even though the competition is new to Palestinian telecom market, but companies offer a lot of new services that evolved fast. The customers can choose their service provider without any restrictions and they can change their providers without any cost or at a minimum cost.

1.7 Structure of Thesis

This thesis consists of six chapters: Chapter One is an introductory chapter that covers the background of services, problem statement, research questions, expected outcome, and a brief of telecom industry in Palestine.

Chapter Two is a review of relevant literature consisting of two main parts: the first is about concepts related to service management that include service concept, service quality, customer satisfactions, and customer value. The second part is about the main topics in NSD literature, it includes service innovation, NSD models, and the success factors for service projects.

Chapter Three is the methodology of this research that discusses the different types of research: approach of research, strategy of research, data collection, empirical data, data analysis approach, data reliability and validity, and outcome validation.

Chapter Four gives a presentation of data analysis and concluding results, while Chapter Five includes a discussion of results and finding and constructing work for explored framework.

Chapter Six consists of the summary of the thesis's findings, implications and recommendations for further research.

Chapter Two

Literature Review

2.1 Chapter Overview

This chapter is a review of the literature supporting the research objectives and it is organized into two Parts.

The first part discusses related concepts of service management that includes services versus physical products, service quality, service satisfaction, and service value. Riedl et al (2010) identified four main topics areas in NSD literature during the period of 1997-2008 including: types of service innovation, antecedents of success, process models, and generic and organizational aspects. Thus, the second part of this chapter focuses on these areas, primarily discussing the service innovation, different models of NSD, and success factors for service projects.

Through the duration of this chapter, the reader will be able to understand the service industry from various aspects such as service importance, characteristics, and measurements. On the other hand, he will recognize the evolution of service systems developments and the importance of innovation in the development process and to identify the success factors of NSD.

2.2 Part One: Concepts Related to Service Management

2.2.1 Service Concept

What is meant by service? It is difficult to define this term precisely due to varied nature of the service industry. Nevertheless, Quinn et al (1987) provided a comprehensive definition of service to include: "all economic activities whose output is not a physical product or construction, is generally consumed at the time it is produced, and provides added-value in many forms (such as convenience, amusement, timeliness, comfort or health) that are essentially intangible concerns of its first purchaser" (as cited in Zeithaml and Bitner, 2003, p3). In this regard "We define services as the application of specialized competences (knowledge and skills) through deeds, processes, and performances for the benefit of another entity or the entity itself" (Vargo and Lusch, 2004, p2).

2.2.1.1 Services versus Products

It is important to distinguish between services and goods. Services have four characteristics which explain essential differences between services and physical products. These differences are: intangibility, simultaneity (also called co-production or inseparability), heterogeneity and perishability (Zeithaml et al, 1985).

Intangibility: means that services are not similar to physical objects, and are actions that cannot be seen, felt, tasted, or touched (Tatikonda and Zeithaml, 2002).

Simultaneity (or inseparability): means that most services are produced, delivered and consumed at same time (Tatikonda and Zeithaml, 2002). It reflects the simultaneous delivery and consumption of services (Zeithaml et al, 1985; Onkvisit and Shaw, 1991). Therefore, customers are unable to experience the actual service they will receive before it is delivered.

Heterogeneity: reflects the variation in service delivery depending on customer, provider, time, and circumstances. This represents a problem for services with high labor because different people deliver the service, and the performance of them can vary from one to other and day to day (Zeithaml et al, 1985; Onkvisit and shaw, 1991). Onkvisit and Shaw (1991) consider heterogeneity as an advantage when the providers use it to offer flexible and customized services.

Perishability: means that services cannot be stored, inventoried for future demand, resold, or returned (Tatikonda and Zeithaml, 2002). Therefore, it is possible to conclude that providers lose unused service capacity and demand that exceed service capacity.

2.2.1.2 New Service Development versus New Product Development

Many authors studied the relation between NSD and NPD. A study by Vermeulenv and Dankbaar (2002) showed that several concepts originating from the NPD literature are applicable to NSD. Stevens and Dimitriadis (2005) pointed out that the difference between services and physical products leads to particular features as well as to their development efforts. Furthermore, Johne and Storey (1998) noted that

developing a new service is usually more complex than developing a new physical product, as it need to develop interaction process with the customers in addition to concept. They also pointed out that intangibility makes it difficult to test service concepts. Therefore, a major point of difference between product development and service development is the involvement of customers in services (Ennew and Binks, 1996). Customers are usually involved in service delivery, and the purchase of services tends to involve a longer commitment, thereby creating a closer and more intimate relationship with customers (Alam, 2002).

Comparing to the NPD, the literature related to NSD is still limited. However, there is a growing interest in service development and many authors now recognize the need to investigate NSD processes (Stevens and Dimitriadis, 2005). According to Johnson et al (2000), a number of models that in different ways and from different perspectives describe and explain how services are, or at least ought to be, developed

2.2.2 Service Quality (SQ)

Quality in services is a critical factor for the growth and development of service sector business enterprises (Powell, 1995). SQ works as an antecedent of customer satisfaction (Ruyter and Bloemer, 1995). Moreover; it has become so important for businesses not only the need for success, but in some cases, the need for survival is essential as well (Chen et al, 1994).

Parasuraman et al (1985) and Zeithaml et al (1990) noted that the delivery of services with high level of quality is the key strategy for the success and

survival of any business organization. It is important to consider the opinions Boshoff and Gray (2004), who pointed out that more attention to SQ can differentiate the services of an organization from other organizations to achieve a continuous competitive advantage.

2.2.2.1 Concept of Service Quality

Usually, SQ is defined as the extent to which a service meets customers' needs or expectations (Lewis and Mitchell, 1990; Asubonteng et al, 1996). However, there are a number of different definitions as to what is meant by SQ, some important of these definitions are follow.

According to Parasuraman et al (1985, 1988), SQ is determined by the differences between customers' expectations of service providers performance and their evaluation of the received services. Asubonteng et al (1996) defined SQ as the difference between customers' expectations for service performance prior to the service encounter and their perceptions of the service received. Gefen (2002) considers SQ as the subjective comparison by customers, who compare quality of the service that they want to receive and what they actually get. Thus, it is possible to conclude that service quality could be defined as the difference between customer expectations of service and perceived service. When expectations exceed performance, perceived quality is less than satisfactory and that leads for customer dissatisfaction (Lewis and Mitchell, 1990).

2.2.2.2 Measuring Service Quality; SQ Gaps and SERVQUAL Scale

Measuring SQ aroused huge interest and debate in the research literature, measurement allows comparison before and after changes to determine the effectiveness of service development. Edvardsen et al (1994) stated that, according to their experience, the starting point in developing quality in services is analysis and measurement. In fact; there has been no general agreement on the measurement of the concept. The majority of the researchers to date attempted to use SERVQUAL model, which is a conceptual model developed by Parasuraman, Zeithaml and Berry in 1985 and enhanced in 1988 to measure SQ (e.g. Chaston, 1994; Edvardsson et al, 1997; Lings and Brooks, 1998; Sahney et al, 2004).

During the study of SQ and measurement analysis, Parasuraman et al (1985) conducted focus groups and interviewed executives. During that period, they identified five "gaps" that can cause quality problems in organizations. The first gap resulted from discrepancies between the perceptions of management and consumers' expectation, while the discrepancies between management perceptions and service specifications created 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, and the fifth gap is the difference between the customers' expectations and the perceptions of service actually received. Parasuraman et al (1988) attempted to measure this fifth gap by developing the SERVQUAL instrument.

The SERVQUAL scale has been the predominant instrument used to measure consumers perceptions of SQ by measuring the difference between customer expectations and their perceptions of the service delivered as shown in Figure 1. It is a multiple-item scale that has five dimensions clarified as follows (Van Iwaarden el al, 2003):

(1) Tangibles: The appearance of physical facilities, equipment and personnel.
(2) Reliability: the ability to perform the promised service in a dependable and accurate manner.
(3) Responsiveness: The willingness to help and respond to customer need, also to provide prompt service.
(4) Assurance: The knowledge and courtesy of employees that including competence, courtesy, credibility and security, and their ability to inspire trust and confidence.
(5) Empathy: The provision of caring, individualized attention to customers that including access, communication, understanding the customer.

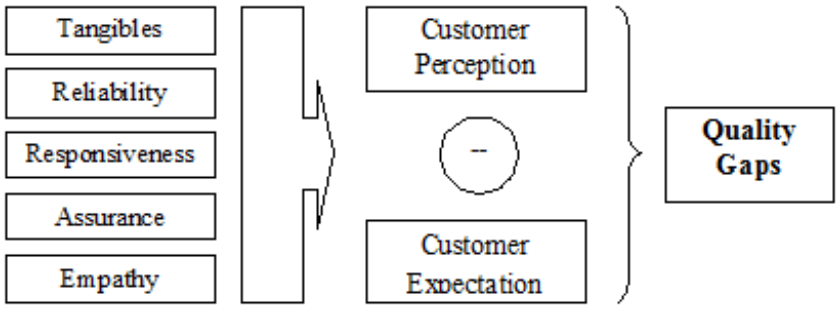

Figure 1: Measuring Quality Gaps using SERVQUAL scale

In addition to the above five dimensions of SERVQUAL instrument, Wang and Lo (2002) added a sixth dimension, which is Network Quality when

SERVQUAL instrument is applied to the mobile telecom market, based on a qualitative study by organizing customer focus groups. The network quality is reflected in excellent indoor and outdoor coverage and in the clarity of voice reproduction without any connection break-downs.

Therefore, a company should always pay attention to the customer perceptions and expectations. If there is a difference between customer expectations and perceptions, it means a gap. It is important to understand how the customer perceive services, rather than conduct an investigation of the gap whether it is based on facts or feelings (Friday & Cotts, 1995)

2.2.3 Customer Satisfaction (CS)

In recent years, there has been considerable managerial interest in CS from different perspectives that include definition, measurement and development (Lele and Sheth, 1991; Zeaithmal et al, 1990). However, Sheth (1994) mentioned that the academic interest in the concept of CS started in (1969) when Howard and Sheth introduced their theory of buyer behavior. At that time, they defined satisfaction as the difference between post purchase experience and prior attitude with respect to the question of brand choice.

2.2.3.1 Concept of Customer Satisfaction

Reviewing service management literature, CS is the result of a customer's perception of the SQ (Blanchard and Galloway, 1994) relative to the expectation (Zeithaml et al, 1990). In fact, there are many definitions

of CS. Looy et al (2003) defined it as the customer's feeling regarding the gap between his or her expectations towards a company, product or service and the perceived performance of the company, product or service. According to Kotler and Keller (2006, p. 144), it is "a person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations". Brown et al (1992) defined CS as the state in which customer needs, wants and expectations throughout the product or service's life are met or exceeded resulting in repeat purchase, loyalty and favorable worth-of mouth.

There are two general conceptualizations of satisfaction; transaction-specific satisfaction and cumulative satisfaction (Jones and Suh, 2000). Transaction-specific satisfaction is a customer's evaluation of his or her experience and reactions to a particular service encounter (Boshoff and Gray, 2004). Cumulative satisfaction, on the other hand, refers to the customer's overall evaluation of the consumption experience up to date (Jones and Suh, 2000), and judgment is considered to provide a more fundamental identification of indicators that represent the past, current and future performance of an organization. However, Anderson et al (1994) claimed that cumulative satisfaction is useful to predict the consequences of satisfaction.

2.2.3.2 Importance of Customer Satisfaction

Oliver (1997) emphasized the importance of CS, describing it as "fundamental". It means that CS is fundamental to customers and to

companies' profits. Other authors identified CS as contributing to customer retention and loyalty (Anderson et al, 1994; Mittal and Kamakura, 2001). A study by Buzzell and Gate (1987) showed a strong positive relationship between loyalty and return on investment (ROI), which was even better than market share and ROI. Thus, it is possible to conclude that CS can enhance business performance (Van der Wiele et al, 2002) and financial performance and profit (Anderson and Mittal, 2000; Chumpitaz and Paparoidamis, 2004). In addition, several studies demonstrated that attracting a new customer is five times more expensive that retaining a current customer (Albrechet and Zumke, 1985).

Furthermore, Bolton (1998) found that high cumulative satisfaction customers were more likely to keep their relationships with the relevant suppliers/organizations, and appeared to be less sensitive to expressing disappointment with under-performing services/products. Additionally, loyal customers may exhibit a number of positive behavioral attributes such as more frequent purchases, less sensitivity to price and a lower likelihood of switching to other services, all contributing to increases in profitability.

2.2.3.3 Measurement of Customer Satisfaction

Determinant of CS allow organizations to know how well the business process is working and where to make changes for improvement, and to determine if the changes led to improvement when changes are needed. As a result, the measurement of CS has received considerable attention from both academic and practitioners in the last two decades

(Parasuraman et al, 1991; Cronin and Taylor, 1992), but what is more appropriate for measuring satisfaction, cumulative or transaction-specific? Oliver (1997) suggests that the intensity of the services/products usage determines whether to use short (transaction-specific) or long term approach (cumulative), because services/products that are consumed regularly by both approaches could be used, while for those which are consumed infrequently, it was suggested that transaction-specific methods could be used.

On the other hand, Abdullah and Rozario (2009) accentuate that the level of CS may be influenced by various internal and external factors. Furthermore, Veloutsou et al (2005) indicate that overall CS is not a static process and keeps on changing when the customer acquires familiarity with the service provider. This makes CS determination is a very difficult process.

Even though, there are many methods to measure CS, many authors who studied the relationship between perceived SQ and CS found that CS could be determined by measuring SQ (Cronin & Taylor, 1992; Arasli et al, 2005). In this regard, Li (2008) claimed that customer perception towards products or services is widely used to measure CS.

Moreover, Pezeshki (2009) discussed popular methods and techniques to measure CS determination including critical incident techniques (CIT), analysis of complaints and compliments, Kano questionnaire, importance grid, and regression analysis with dummy

variables (RADV). Pezeshki (2009) added that the regression analysis with dummy variables (RADV) method has proved to be a reliable method for service attribute classification when compared to other methods. Also, it is a user-friendly approach, since it is based on CS survey data (service attribute performance and overall satisfaction); the method can be carried out for a sample population.

2.2.4 Customer Value (CV)

The growing interest in CV was triggered by the recognition that CV can be a further source for competitive advantage (Woodruff, 1997), and factor in to enhance CS and customer loyalty (Andreassen and Lindestad, 1998), and reason for re-purchase intentions (Andreassen and Lindestad, 1998; Wang et al, 2004). Consequently, Anderson and Narus (1999) maintain that, in the business market, value is said to be the cornerstone of business market management, and who understands his/her customers and what is CV, will be more able to further succeed in his/her business.

2.2.4.1 Concept of Customer Value

Zeithmal (1988, p.14) defined CV as "The consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given". This definition has become the most common definition of CV in the marketing literature (Patterson and Spreng, 1997). There has not been any single widely accepted definition of CV and research findings remain fragmented (Anderson et al, 2006; Wang et al,

2004). CV is also one of the constructs that is difficult to define and measure (Zeithaml, 1988; Woodruff, 1997). Moreover, it tends to be highly personal, subjectively perceived and varies widely from one customer to another (Parasuraman et al, 1985; Zeithaml, 1988). In addition to being differently perceived by each individual, CV also varies according to the context being studied (Patterson and Spreng, 1997).

In the marketing discipline, the definition of value is typically based on customer points of view. Rintamaki et al (2007, p.622) confirmed the important role of the customer in determining value; "it is always the customer who defines what is valuable and what is not". For this reason, all efforts to create value must be addressed to support customers in enhancing opportunity costs (Vargo and Lusch, 2004). Studying the different approaches and definitions of CV, it is found that there are two common areas in which most of value definitions agree. First, CV should be defined based on the customer's perspective (Rintamaki et al, 2007). Second, most definitions emphasize the importance of a trade-off between benefits and sacrifices, the benefits refer to economic, social and relational advantage, while the sacrifices refer to price spent, time lost, effort and risk (Zeithaml, 1988).

2.2.4.2 Importance of Customer Value

Due to its central importance for success, CV has become a concept of continuing interest in the academic world, and a plethora of research has emerged highlighting its importance in driving success as well as its

relationship to other central concepts such as customer satisfaction, loyalty and retention (Khalifa, 2004). Previous studies have identified the fact that even though customers are satisfied, there is no guarantee that customers will be loyal and stick to the company (Jones and Sasser, 1995). Zeithaml and Bitner (2003) claimed that customers remain loyal when the perceived value received exceeds competitor's offerings. Consequently, the CV construct is seen to be more future-oriented and strategic since it focuses on value creation and meeting former present and future customers' requirements (Eggert and Ulaga, 2002). Considering that, CV occurs at both the pre-purchase and post-purchase stages unlike CS that occurs post-purchase (Woodruff, 1997; Eggert and Ulaga, 2002).

2.2.4.3 Measurement of Customer Value

One of the famous scales to measure CV is the PERVAL scale developed by Sweeney and Soutar (2001); which is a four-dimension scale covering the functional value for money, functional value for performance and quality, emotional value and social value. According to Sweeney and Soutar (2001), CV scales were tested in the retail setting to see which was a tangible product in nature. Petrick (2002) argues that the scales developed for measuring tangible products are relatively difficult for measuring services. Therefore, he suggested a different scale designed specifically for the service sector to overcome limitation of PERVAL, which is a multi-item and multidimensional scale called SERV-PERVAL (Petrick, 2002).

The SERV-PERVAL was tested empirically on cruise line passengers, the measurement consisting of five dimensions: behavioral price, monetary price, emotional response, quality and reputation (Petrick, 2002). Behavioral price represents the nonmonetary aspects of obtaining the service. Customers spend time and effort as part of their search to find the service they want (Petrick, 2002; Zeithaml, 1988). Monetary price refers to the price of a service (Petrick, 2002). Emotional response reflects the pleasure acquired from consuming the services (Sweeney and Soutar, 2001; Petrick, 2002). Quality refers to customer's judgment regarding the excellence of overall services' provided (Petrick, 2002; Zeithaml, 1988). Finally, reputation refers to prestige or status received, based on the image that the service providers have developed (Petrick, 2002).

2.3 Part Two: Main Topics in New Service Development Literature

2.3.1 Service Innovation

2.3.1.1 Definition and Importance of Service Innovation

Generally, innovation is the creation and implementation of new ideas that could be processes, physical products or services (Baregheh et al, 2009). However, scholars provided different definitions of service innovation. Goncalves (2007) defined service innovation as change in things (products/services) which service organizations offer or change in the ways in which they are created and delivered. Flikkema et al (2010)

defined it as the multidisciplinary process of designing, realizing and marketing combinations of existing and/or new services and products with the final attempt to create valuable customer experiences. Despite the different definitions, scholars agreed that service innovations concern different dimensions of services, such as the service concept, the customer interface, the service delivery, or the technology involved (De Jong and Vermeulen, 2003)**.**

Innovation is become more critical in current business environment due to the fact of short lifecycle of current products and faster adoption of technology (Afuah, 1998). Therefore, a lot of organizations are looking to become successful innovators. Since organizations that have a laidback strategy towards innovation will often find themselves struggling to keep up, but organizations that excel in innovation have the opportunity to grow faster, smarter and more professional than their competitors and thus influence the achievements of the organization (Davila et al, 2006). Chesbrough (2006) formulates this very precisely: "Everyone knows that innovation is a core business necessity, companies that do not innovate, die. This is not news"

2.3.1.2 Types of Service Innovation

Different authors address possible types of service innovation (e.g., Tushman and Anderson, 2004; Gallouj, 2002; Frank et al, 2003). It has been categorized in several ways in order to understand their differences and depths. Innovations consist of incremental ones as well as those that

change industry standards, substitute for existing products and reconfigure products to fundamentally different markets (Tushman and Anderson, 2004). Gallouj (2002) categorizes innovations based on innovation object. Thus, there are four types of innovations: 1) product or service-product innovations, 2) process innovations, 3) organizational innovations, and 4) innovations in external relations or marketing. Innovations have also been categorized based on their market and technology-related uncertainties such as Frank et al's (2003) categorization of innovations, who categorized it into four groups: radical innovations, developing technology innovations, developing market innovations and incremental innovations, as shown in Figure 2.

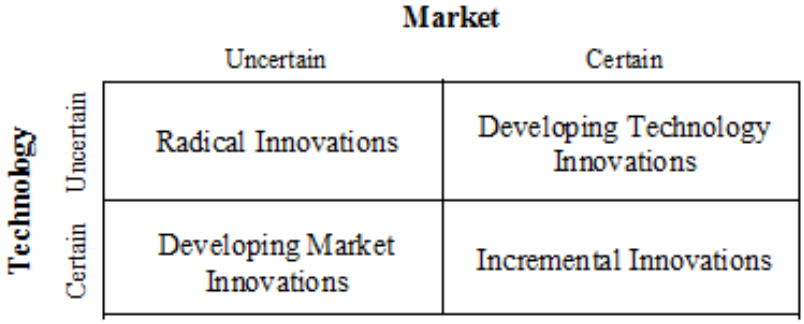

Figure 2: Categorization of Innovation (Frank et al, 2003)

2.3.1.3 Dimensions of Service Innovation

According to Straub (2010), Den Hertog and Bildebeek (1998) developed a model for service innovation that is used as an analytical framework to determine innovation related to performance-based contracting and identify the minimum competence and capability of contractors. The model consists of four dimensions; service concept, client interface, service delivery system, and technological options. Each service

innovation is a mixture major and minor change of those four dimensions (Den Hertog and Bildebeek, 1998).

Innovation among companies is seen as a vital, ongoing process to ensure a firm's survival in any given market, but new ideas often meet with internal or external barriers, which can block, delay or distort the realization of an innovation project (Hauschildt and Salomo, 2007). Innovation barriers can be differentiated according to whether they are set up inside or outside the company itself (Olsen and Boxenbaum, 2009). Internal barriers concern operational and organizational factors within the company itself, such as conflicts between internally-defined goals and an existing strategy. Also, bureaucratic, risk averse, and refuses to change will tend to obstruct innovations. While lack of support from top management for innovation will meet with even less acceptance and be furnished with even fewer resources, problems in cross-functional collaboration, lack of communication management and rigid organizational structure will cause organizational barriers. The lack of professional development processes or absence of customer input can also constrain a company's innovation potential (Drew, 1995). A lack of financial or human resources can pose additional threats to innovation projects (Segarra-Blasco et al, 2008). On contrast to internal barriers, external barriers concentrate on aspects relating to the market such as uncertain market trends, network such as excessive complexity and environment such as lack of market regulation. Therefore; it is important to understand the barriers and how the organization overcomes them. Loewe and Dominiquini (2006, p. 24) have

come up with three types of advice for companies that want to become successful innovators. The first is “do not just treat the symptoms”; the second, “do not only act on one root cause”; and the last one is “do not blindly copy best practices”.

Loewe and Dominiquini (2006) argue that most of the executives only identify the symptoms while the problem is related to the root causes of these symptoms; and according to them, these root causes can be related to leadership behaviors, management processes, people, skills, culture, and values.

The second point of advice from Loewe and Dominiquini (2006) tells the companies to not only focus on one of these mentioned areas, but on all of them in a systematic way. Otherwise, focusing on one area would not generate sustainable success. The third suggestion refers to the fact that each company has to evaluate their own specific innovation issues and opportunities, learn from how others have handled similar situations or challenges, and construct a tailored action plan to tackle a company’s most severe problems.

2.3.2 New Service Development Models

According to Johnson et al (2000), a number of models that in different ways and from different perspectives describe~~s~~ and explain~~s~~ how services are, or should be, developed. On an aggregated level, those models could be divided into three broad categories (Johnson et al, 2000). The first category is the partial models describing a certain aspect of the service

development process. One example of partial models is Shostack's (1984) model of NSD, which focuses on the activities necessary to create a service blueprint. In the second category, we find the so-called translational models that to a large extent draw experience from models describing the development of physical goods and translate this knowledge into the service area. One example of a translation model is provided by Bowers (1989) that aims to determine the number of businesses that actually employed the seven steps of the Booz-Allen-Hamilton (BAH) model (the seven-steps are NPD strategy, idea generation, screening and evaluation, business analysis, development, testing, and commercialization). The third category of models is the comprehensive models that try to describe service development from its own perspective and based on its own merits (Johnson et al, 2000), as it indicates the interactions among various activities in the NSD process **(**Lin and Hsieh, 2011). A good example of comprehensive models is the well known fifteen-stages NSD model offered by Scheuing and Johnson (1989), the model indicates the interplay between the design and testing of the new service and is valuable because it illustrates the various internal and external activities and interactions needed throughout the NSD process.

2.3.2.1 Sequential Development Models

Several researchers applied sequential development models to the service activity. The work of Reidenbach and Moak (1986), based on American financial firms, showed that companies using more formal

procedures succeed more frequently than other companies, even for cases with longer duration of the development process. Edgett and Jones (1991) observed a successful NSD project developed by using a very formal process, which consists of more than sixteen stages, including marketing research, business plan, IT development, agreement, and post-launching evaluation stage.

Johnson et al (2000) suggested a model to describe the NSD, which contains four broad stages and thirteen tasks, all tasks must be executed to launch the new service as well as the involved components within the organization, the four stages are design, analysis, development, and launch.

Sequential development models suffer from three major weaknesses. First, Cooper (1994) recognized that the implementation of "stage-gate" systems slows the projects down due to time-consuming and overly bureaucratic processes. Second, the description of the stages does not integrate the way firms organize development teams. Several authors have stated that the NSD process is based on multi-functional teams, specifically created for this task (Scheuing and Johnson, 1989). Third, sequential models do not help to define what must be produced during each stage. Cooper (1993) demonstrated the positive impact of the quality of execution of each stage on the final result. One key to success is ensuring that every step of the process is executed in a quality fashion. To ensure the quality of execution, it is important to consider the project as a process of exploration

of possible new combinations, and to reduce uncertainty by collecting different information (Midler, 1993).

2.3.2.2 Holistic Development Models

Seeking to simplify the NSD process and to emphasize the concept development stage, Edvardsson and Olsson (1996) developed a three stage model depicting the NSD process as three activities commencing with the development of a service concept, followed by design of both the service system and the service process. They did not explicitly point out any stages or activities in their model. The service concept that includes the basic idea of the service, as well as its basic content and structure. The service process describes the chain of activities to be carried out, and roles of the provider and the client. Finally, the service system constitutes the resources required, including sub-components such as staff, physical/ technical environment and the organizational structure.

Central to the ethos of this model is the perception of the NSD process as a means to fulfill customer needs through the provision of customer value; the concept development phase clearly articulates the customer value being proposed and the service process and system are designed to ensure its reliable delivery.

2.3.2.3 Organizational Development Models

The origin of organizational factors was from the new product development theory, such as communication management, cross functional

teams and teamwork. These factors have been suggested to contribute to NSD (Vermeulen and Dankbaar, 2002). Therefore, Stevens and Dimitriadis (2005) model focus on organizational learning. They asserted that the development of new services creates new individual competencies, which if integrated, can result in overall organizational transformation. They considered that the responsibility of the development team is to imagine, design and formalize scenarios for service delivery. Stevens and Dimitriadis (2005) believe that innovation can be fostered through learning, and advised managers to build cross-functional teams comprising individuals with appropriate experience and knowledge to support the NSD process.

Moreover, Vermeulen and Dankbaa (2002) committed that both of cross-functional project teams and parallel implementation of process phases may improved communication between different parties within NSD process.

2.3.2.4 Major Phases of New Service Development Models

To summarize NSD, and according to Lievens et al (1999) in reviewing the literature of NSD models, one could at least identify three rather broad phases that the service development process goes through planning phase, development phase, market launch phase. Each of these phases has many activities, the first phase consists of activities concerning an up-front pre-developments phase, such as idea generation and screening, market research, technical assessment, financial and business analysis, and concept development and evaluation. The second phase is extensive and

has a lot of activities such as developing and forming the service concept, the service system and the service processes that required for the service delivery, also service testing that includes in-house testing with customers and front-office staff (Edvardsson et al, 2000). The third phase consists of pre-launch and after-launch activities in form of organization integration, marketing and training to the front-line staff, the marketing to the customers, on the other hand, conducting field evaluation and learning lessons.

2.3.3 Success Factors for Service Projects

As a large proportion of NSD initiatives are not entirely successful (Johne and Storey, 1998), and failed to meet expectations with respect to financial performance or customer satisfaction (Cooper and Edgett, 1996). Only fifty eight percent of service projects are considered as successful projects according to Griffin (1997). In other words, four out of ten new service projects fail in the market, therefore, a remarkable number of researchers have attempted to identify factors that are crucial for the NSD performance success. These factors can be divided into internal and external factors (Ojanen et al, 2008). Based on the concept of a SWOT analysis, De Brentani and Ragot (1996) distinguish between internal successes factors, related to the strengths and weaknesses of the firm, such as NSD competence (Menor et al, 2002) and the organization or design of the firms NSD processes (Froehle et al, 2000; Easingwood and Storey, 1993) and the external factors that are related to the way the benefits of the

new service address the opportunities and threats in the market environment. These include, for example, the fit between customer needs and benefits of the service offer, as well as the fit between the new service and the existing product portfolio (Vargo and Lusch, 2004).

Although the differences among service types are widely recognized (Storey and Hull, 2010), there has been little research concerning the influence of service characteristics on the factors which determine NSD success. It was noticed that insufficient knowledge about diversity of offered services can make it difficult to identify the principles of managing operation and marketing practices across different types of services (Chase and Apte, 2007).

Before reviewing the literature related to NSD success factors, it is important to clarify that the empirical studies, which have investigated the success factors at the project level, indicated that success or failure of a project is the result of a holistic approach by managing related aspects from different perspective in a balanced manner, rather than concentrating on one or two activities (Johne and Storey, 1998).

2.3.3.1 Analysis of Critical Success Factors

There are many factors that impact and determine the success level of new service projects, the following factors are among popular ones:

Strategic Factors: Johne and Storey (1998) found that service firms that are successful at developing new service overtime tend to have a clear

strategy for their new service. According to Giffin, (1997) the most consistently held prescription for development success is that the firm's new product or new service strategy must be related to the overall business strategy. It is the role of executive management or a project chairperson to provide clear direction and to drive the NSD process, while adhering to the strategic objectives that set down from the beginning (Scheuing and Johnson, 1989).

Employment Expertise and Involvement: It is identified as an important factor impacting performance of NSD. Thus, in order to gain customers' trust, first-line service personnel should represent strong behavioral competencies (Neu and Brown, 2005). Employees in direct contact with customers can make a difference by motivation (Neu and Brown, 2005), friendliness, courtesy, and efficiency (Froehle et al, 2000), In addition to motivating front-line personnel, it is also crucial to ensure a high level of expertise among the employees conducting the development activities (Neu and Brown, 2005, De Brentani, 2001).

Formal Process: it was proven that highly formalized development processes make a positive contribution to the speed of a firm's NSD efforts (Froehle et al, 2000, De Brentani, 2001). This is not valid to all development projects, especially within unstable environments and for more radical innovations (Storey and Hull, 2010). Moreover, it was found after analyzing the antecedents of NSD success, that IT systems and

process structure have a positive impact on the speed of NSD processes (Froehle et al, 2000).

Customer Involvement: several authors found that customer involvement in various stages of the development process has significant contribution for process success (Cooper and de Brentani, 1991, Melton and Hartline, 2010), especially in the initial stages such as idea generation and screening (Melton and Hartline, 2010, De Brentani, 1991). Moreover, the participation of customers in the development process seems to have a positive impact on service marketability (De Brentani, 1991), launch preparation (Melton and Hartline, 2010), and enhance operational outcomes and supports innovation (Carbonell et al, 2009).

Market Orientation: Market orientation targets understanding consumer-requirements and desires, as well as competitor's behavior (Ottenbacher and Harrington, 2010). Therefore, Edvardsson and Olsson (1996) underscore the importance of understanding customers' needs, desires and expectations, and consider that as the driver of any NSD. Moreover, market orientation is important also for the identification of market opportunities, mainly for the process of idea evaluation and the test of developed concepts (Song et al, 2009). Also, the planning proactively and foreseeing market trends make it possible for companies to be the first to market, thereby giving them an advantage for more success (Limpibunterng and Johri, 2009).

Product Synergy: it is another important factor for the success of NSD. Successful services fit their designated markets (De Brentani, 1991, De Brentani, 1989) and targeted customers (Cooper and de Brentani, 1991) and are compatible with or supplement other products of the organization (Easingwood and Storey, 1993), shared resources (De Brentani, 1989) and enhanced capabilities (Ottenbacher and Harrington, 2010).

Cross Functional Teams: In the NSD context, cross functional team has significant impact on the process success (Meyer and DeTore, 1999). As the number of functional areas in a team increases, the diversity of ideas and perspectives brought to the team increase, and according to Avlonitis and Papastathopoulou (2001), cross-functional involvement is a success factor over the all activities of the process from idea generation up to service launch (Avlonitis and Papastathopoulou, 2001). However, Froehle et al (2000) emphasized that development teams should consist of members of different functional areas and from the beginning of the development process in order to identify potentials and problems as early as possible.

On the other hand, the barriers or risks related to NSD can be categorized similarly and in many cases they can be seen as the “other side of the coin” to the success factors.

By the end of this section and according to Ojanen et al (2008), they summarized the success factors related to NSD that can be found in the literature in the following brief notes:

- Strategic factors (clearly-defined directions, resource allocation, staffing etc.)
- Organizational factors (cultural issues, inspiring environment etc.)
- Structural/process factors (formal processes etc)
- Technological factors (efficient use of ICT, technical competences etc.)
- Market factors (changes in the market / in competition, regulations etc.)
- Network-related factors (depth of relationship, level of communication, trust and communication between partners etc.)

Chapter Three

Research Methodology

3.1 Chapter Overview

The purpose of this chapter is to discuss the research procedures and techniques that were used in this study. In particular, it includes the purpose of the research, research approach, research strategy, data collection tools, data collection, data analysis, and data validation.

After reading this chapter, the reader should have a comprehensive understanding about methodological set of guidelines, tools, and approaches that the researcher relies on it to assist achieving the objectives of the study.

3.2 Types of Research

Research can be categorized according to it is purpose. Accordingly, both Saunders et al (2003) and Robson (2002) have categorized it as exploratory, descriptive, and explanatory.

Exploratory research can be described as finding out what is happening and identifying new knowledge, new understanding, and to explore new factors related to the subject (Brink and Wood, 1998). Moreover, Saunders et al (2003) used exploratory study to gain more understanding of an issue or to investigate an area that is still immature, or to conduct undefined problem. Generally, exploratory research examines the relevant factors in detail to

arrive at an appropriate description of the reality of the existing situation (Brink and Wood, 1998), and according to Saunders et al (2003) there are three principal ways to conduct exploratory research: reviewing available literature, using qualitative approaches with experts in the subject, and interviewing focus groups.

Descriptive research is used to describe the situation and phenomenon, and such research makes it possible to answer many questions (Saunders et al, 2003). Accordingly, descriptive research is designed to measure the characteristics described in a research questions. Hypotheses usually serve to guide the process of research and provide a list of characteristics to be measured (Hair et al, 2003). Even descriptive analysis defines the constructs of theory elements (Snow and Thomas, 1994), but it does not explain the nature of relationships between these elements (Smith and Albaum, 2005).

The explanatory research is conducted in order to explain a cause-and-effect relationship between different variables during the study of a problem or a particular situation (Saunders et al, 2003). Explanatory researches were designed to test whether one event causes another (Hair et al, 2003). As a result, explanatory studies specify a complete and logical series of causal events that connect variables and constructs in a story why these occur (Miles and Huberman, 1994).

Recalling the aim of this study, to investigate relevant themes and factors related to NSD process that supports the creation of sustainable telecom

service system suitable for the Palestinian Market. Therefore, the purpose of this study is mainly to be exploratory in addition to descriptive analysis. It will start with descriptive research in order to report and understand the current service development system of telecom industry and related environments, and then to explore a framework for sustainable service development system that is suitable for the Palestinian telecom organizations.

3.3 Approach of Research

The research approach tends to be qualitative, quantitative, or mixed of both (Creswell, 2003). The most significant difference between a qualitative research design and a quantitative research design is that qualitative research is more focused on words than numbers (Bryman and Bell, 2007), while the mix approach is to get benefit from the strengths of each of qualitative and quantitative approaches and minimize the weaknesses of each of them in a single research study (Johnson and Onwuegbuzie, 2004).

3.3.1 Qualitative Approach

Qualitative research approach relies on the collection of data that depends on word more than numbers that is going to be naturally interpreted. According to Grönfors (1982), there are four major themes in qualitative research: first, qualitative research occurs in a natural environment; second, data is derived according to interviewee's or

interviewer's perspective; third, the research design is flexible and researcher can adjust the data collection or analysis method due to certain constraints; and forth, no standardization of instrumentation methods or modes of analysis. This means that qualitative researchers study things in their natural settings, and are looking to make sense of or interpret phenomena according to the meaning people bring to them (Newman and Benz, 1998). Because qualitative research relies on the collection and analysis of textual data, there are many methods to collect data such as surveys, interviews, focus groups, conversational analysis, observation and ethnographies (Olds et al, 2005).

3.3.2 Quantitative Approach

The second approach of research is quantitative research. The term "quantitative" indicates that research is based on quantitative approach, which primarily consists of collection and handling relatively large amount of data. Accordingly, quantitative studies use standardized measures that fit diverse opinions and experiences into predetermined answer categories (Patton, 1987). As a result, quantitative approach is suitable for descriptive and easily measurable information. On the other hand, a quantitative approach is designed to identify and test research hypotheses, which are formed according to existing theory (Cavana et al, 2001). Therefore, a particular size of survey is required in order to be able to apply for statistical analysis of proposed hypotheses (Malhotra et al, 2004). However, there are different assessment methods pertinent to engineering

education to achieve qualitative studies that include surveys, statistical analysis and experimental designs (Olds et al, 2005; Malhotra et al, 2004).

3.3.3 Mixed Approach

The third approach of research is mixed. Johnson and Onwuegbuzie (2004, p. 17) defined mixed methods research as "as the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study". Mixed methods research as the third research approach can help to bridge the gap between quantitative and qualitative research (Onwuegbuzie and Leech, 2004). The goal of mixed methods approach is not to replace either qualitative or quantitative approaches, it is to benefit from the strengths of each of them and minimize the weaknesses of each of them in a single research study (Johnson & Onwuegbuzie, 2004). According to Creswell (2003), mixed approach is helpful in expanding the understanding by using more than one method, and to converge or confirm findings from different data sources. However, even recent writings use the term "mixed methods" to represent this approach. There are many different terms used for the same method, such as integrating, synthesis, quantitative and qualitative methods, multi-method and multi-methodology (Tashakkori and Teddlie, 2003).

3.4 Strategy of Research

Research strategy is a wide method that describes how the researcher will go about answering the research questions of the study. The researcher should specify the sources from which researcher intends to collect data and considers the constraints that the researcher will inevitably have such as access to data, time, location, money and ethical issues (Thornhill et al, 2003). Furthermore, the researcher should determine data collection approaches and tools, in addition to the purpose of data to achieve the final goals of the study.

To answer the research questions in this study, the researcher adopted three phases plan: the first phase is a preliminary study in order to understand current service systems of telecom industry in Palestine using qualitative methods. The second phase is a measurement of the level of quality of current service systems from the customer perspective by using quantitative survey. The third phase is prospective service development in order to explore a framework of NSD process by hearing from telecom experts in Palestine about this industry, to learn from their experience how to develop successful new services. The research project chart is shown in the following Figure 3:

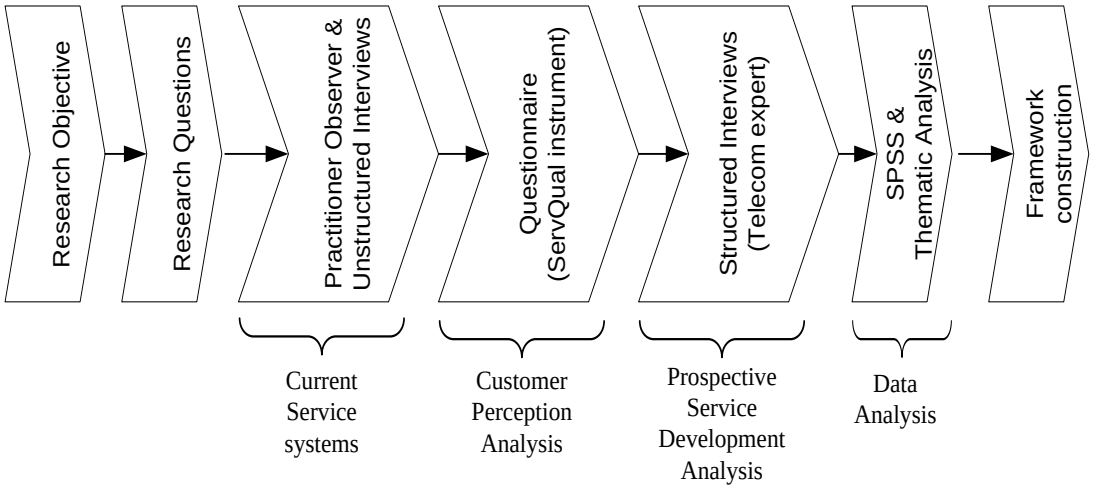

Figure 3: Research Project Chart

As tools and methods to achieve the above strategy, the following data collection tools have been used. The first phase of the project includes both of observation and unstructured interviews (preliminary study). The second phase was a questionnaire survey that targeting public customers (assessments study). The final phase of the project was semi-structured interviews with nominated telecom experts (exploring study), and the following section includes a brief description about these tools.

3.5 Data Collection

3.5.1 Data Collection Tools

There are many tools that could be used in order to accomplish data collection of research study. However, the following three tools are used in this study: participant observer, interviews, and questionnaire survey.

3.5.1.1 Participant Observer

Participant observation includes interacting and engaging with people and their activities in addition to observing them closely (Spradley

1980). Participant observation is one of two conventional methods of data collection in qualitative research, the second method is interviews (DeVos et al, 2005). Moreover, participant observation is a fundamental and primary method to any research study, but the involvement of participant observation can vary from complete observation to complete involvement (DeVos et al, 2005). Likewise, data collection during participant observation can vary from monitoring critical issues to continuous monitoring over time (DeWalt and DeWalt, 2002).

Participant observation has some advantages comparing with other methods of data collection. It provides a rich and detail description of the phenomena, and provides opportunities for observing or participating in unscheduled events (DeMunck and Sobo, 1998). Furthermore, such a method enhances the quality of data collection and interpretation and facilitates the generation of questions or hypotheses of new research (DeWalt and DeWalt, 2002). On the other hand, participant observation has some disadvantages compared with other methods. The researchers may gain different understandings of what they observe, according to the key informant used in the study; and additionally, researchers are usually biased toward what happens within the public eye (DeMunck and Sobo, 1998).

3.5.1.2 Interviews

One of the most popular methods for qualitative research is interviews. They provide in-depth information pertaining to experience of participants and viewpoints of a particular topic (Turner, 2010). Interviews

are a systematic way to obtain data from individuals or small groups through conversations, either face-to-face or by phone. However, there are various forms of audience design to obtain thorough, rich data utilizing a qualitative investigational perspective (Creswell, 2007). According to Gall et al, (2003) there are three formats for interview design: informal conversational interview (unstructured interview), general interview guide approach (semi-structured interview), and standardized open-ended interview (structured interview). Interviews with different design have the same use as a research instrument to provide highly personalized data, opportunities for probing, good return rate (Gray, 2004).

3.5.1.3 Questionnaire Survey

In descriptive research, there are several methods to conduct quantitative research that includes correlation, developmental design, observational studies, and survey research (Williams, 2007). More specifically, for survey research method, the researcher tends to capture phenomena in the moment by sampling data from respondents that are part of population using closed ended instrument or open-ended items (Williams, 2007).

Questionnaire survey is one of the important tools of survey research method, and is a cheap and quick research tool involved in gathering information and data in an organized and systematic manner from a sample or all of a well-defined population. Usually, questionnaire surveys are designed to achieve a well-defined objective by using groups or sequences

of closed-ended questions that allow the participant to select an answer from a set of choices offered explicitly by the researcher. Furthermore, Kraemer (1991) identified three distinguishing characteristics of questionnaire survey. Firstly, it is used quantitatively to describe specific aspects of a given population. The obtained data is “subjective” as it is collected from people without any impact of the researcher, and the finding can be generalized to the population. Questionnaire surveys can be conducted in many ways such as face-to-face, by mail and on-line using web applications.

3.5.2 Empirical Data

This part describes the nature of the empirical data collection, according to the selected data collection tools: participant observer, informal interviews, questionnaire survey and semi-structure interviews.

3.5.2.1 Participant Observer and Informal Interviews

Gold (1958) was the first author to identify four roles of the participant observer: the complete participant, participant as observer, observer as participant, and complete observer. In this study, the researcher’s role is a complete observer. The researcher is an employee in the mother company of telecom industry in Palestine, with more than ten years of experience in practicing different activities related to NSD. Such long time experience qualifies the researcher with required knowledge to describe the current process of NSD in Palestine.

On the other hand, and for the purpose of knowing other opinions, informal interviews have been conducted with four participants selected from three companies that specialized in telecom industry, two of the four participants having changed their company during the last five years. As a result of open discussion during informal interviews, an empirical view of current process of service development system in Palestinian telecom organizations has been cleared and completed.

3.5.2.2 Questionnaire Survey

The well-known service quality scale (SERVQUAL) invented by Parasuraman et al (1985; 1988) was adapted in the questionnaire survey for conducting the quantitative part of the study. The scale included twenty two closed-ended questions to measure the five dimensions of service quality: tangibles, reliability, responsiveness, assurance, and empathy. Because the SERVQUAL scale measures the difference between expectations and perceptions of the delivered services, the participants were asked to give two answers for each question, one about customer expectations and the other about customer perceptions. The answer was to choose a number from 1 to 7, with 1 representing strongly-disagree, 2-disagree, 3-somewhat disagree, 4-neither agree nor disagree, 5-somewhat agree, 6-agree, and 7 represents strongly-agree. Based on Krejcie and Morgan’s (1970) table for determining sample size, the required sample size for this research is 384 applicants for a population close to three million at ninety five percent confidence level and five degrees of confidence interval.

The questions of the scale have been translated from English to Arabic by the researcher and reviewed by interpreter, then published by Google Documents as an online survey. Later on, the survey was announced by internet through Maan news web-page, the famous news agency in Palestine, for two weeks during June, 2012. As a result, 505 successful applications have been filled, therefore exceed the required sample size. The related data has been downloaded from Google, and was filled in MS excel and SPSS sheets for analysis part of this research.

3.5.2.3 Semi-Structured Interviews

For the exploration phase of this study, the researcher used semi-structured interviews with the sample from the telecom Industry. The sample contains thirteen experts holding senior management positions from six different Palestinian companies. Nine out of the thirteen were called for an interview, and the other four were kept as standbys, and only seven experts accepted the invitation. Two experts who had accepted the invitation had apologized later on after reviewing the questions because of the restriction polices within their organizations. As a result, the researcher conducted five successful interviews. Then, the researcher called the standby experts for an interview. Three of the four experts accepted the invitation, and interviews had been passed to make total of eight successful interviews.

All successful semi-structure interviews have been face-to-face meeting held in their offices for a round thirty to fifty minutes. At the beginning,

they were asked for permission about recording of the meeting. Only four of them accepted. Thus, four interviews have been recorded using a mobile phone (IPhone) while the rest have been documented by written comments. Later on, the interviews have been uploaded in unified form that will be used for the analysis part of the study.

3.6 Data Analysis

The analysis process started after data collection of each phase, according to the plan of this study. There are several interrelated procedures that could be performed in order to summarize and rearrange the data during the data analysis stage (Zikmund, 2000). Statistical calculations and thematic analysis are used to handle both of quantitative and qualitative data.

In order to analyze the quantitative data of assessment phase of this study according to the SERVQUAL model (1985; 1988; 1991), the researcher attempted to calculate the averages and standards deviation that are related to the differences between customers' expectations and customers' perceptions of each dimension of service quality dimensions, and to use pair t-test to check the measured difference. This could be accomplished by using SPSS statistical package and the raw data of questionnaire survey (twenty two questions represents five-dimensions of service quality), the result of averages and standard deviations indicating the level of service quality and customer satisfaction.

For the qualitative data of exploring phase of this study, thematic analysis has been used to analyze semi-structure interviews based on the work of Boyatzis (1998) and Braun and Clarke (2006). According to them, thematic analysis is a qualitative analytic method for identifying, analyzing and reporting patterns “themes” within data; at least, it organizes and describes the data set in detail to make a sense, but usually goes further than that to interpret various aspects of the phenomenon (Boyatzis, 1998; Braun and Clarke, 2006). Considering the thematic analysis, it “is not another qualitative method but a process that can be used with most, if not all, qualitative methods” (Boyatzis, 1998). Thematic analysis is a flexible and uncomplicated technique that allows the use of theoretical frameworks and also to generate new insights as a compound of deductive and inductive analyses.

In the guidelines for conducting thematic analysis made by Braun and Clarke (2006), the initial step is to become familiar with the data by multiple readings of raw data, the next is to generate initial codes of raw data , and then abstract the codes by gathering codes, which have similar meaning. The next step is integrating codes into themes or what constitutes as a “pattern”, and finally to validate the chosen themes by building a valid argument, this could be done by referring to related literature.

In this part of this study, the initial step was listening and reviewing the audio recording and notes taken during the interviews and transcribing them into a unified structure as a raw data for the following stage.

Carefully, the researcher read each transcribed interview. The next step is coding of data by ascribing each sentence a code that described the main essence of it, and later collected similar codes into mother codes. The final stage was integrating codes into themes by checking codes relations and theoretical understanding and background. Generally, the analysis of this study represents both inductive and deductive analysis, meaning that it recognized the relationship between theoretical understanding and the nature of data.

3.7 Data Reliability and Validity

SERVQUAL is a generic instrument with good reliability and validity, and applicable over many types of services (1985; 1988). According to Asubonteng et al (1996), the lowest reliability of SERVQUAL was 0.59 reported by Finn and Lamb and the highest reliability was 0.97 reported by Babakus and Mangold. Therefore, it is possible to conclude that SERVQUAL is a very reliable instrument.

Recapping the questionnaire part of the empirical data, the twenty two questions of the SERVQUAL instrument were translated from English to Arabic, then published online using Google documents. The questionnaire was tested to find out whether the questionnaire was easily understandable in terms of communication or view and if there were any vague and confusing questions. Eight participants were asked to answer the questionnaire in the presence of the researcher, and because few comments have been reported, and the questionnaire has been updated accordingly.

Later on, the questionnaire was published via the Maan news agency, which is famous in Palestine. Thus, respondents represent the Palestinian community.

It is important to check the reliability of data before starting data analysis in order to determine the credibility of results. According to Bryman and Bell (2007), reliability checks whether or not respondents' scores on any one indicator tend to be related to their scores on the other indicators. Therefore, in the initial analysis, the internal consistency of data was tested by using Cronbach alpha. The test was determined a high Cronbach alpha that indicates higher internal consistency. However, there are different views of what are acceptable scores for assessing internal consistency. Based on recommendations from Aiken (2006), several marketing studies have accepted reliability greater than 0.6. The researcher followed the recommendation by Aiken, and suggesting alpha greater than 0.6 as acceptable.

In terms of qualitative data by semi structure interviews, thematic analysis was selected in order to analyze the data based on the guidelines of Braun and Clarke (2006), thus, enough number of interviews should be conducted in order to get valid result, according to McCracken (1988), at least eight successful interviews are required for thematic analysis.

3.8 Framework Validity

For the purpose of research result validation, the researcher returned back to telecom experts from Palestine to evaluate the proposed framework of NSD process and how it is suitable for telecom industry in Palestine. Three experts have been selected for this purpose, one of them was among the eight experts whom met during the prospective analysis.

The experts accepted the explored framework, and mentioned that it is suitable for the telecom industry in Palestine. They added that it is easy to be understood and flexible to accommodate ambitions. Moreover, they were satisfied since the proposed framework considers the fast evolution of telecom services and the special environment in Palestine.

Chapter Four

Data Analysis

4.1 Chapter Overview

Data analysis is a division of data into meaningful parts, and then a manipulation of these parts together to get descriptions, empirical generalizations or theoretical conclusions (Gronfors, 1982). After representing the data collected in the previous chapter, the researcher will analyze these data in this chapter.

This chapter consists of three sections that represent the research strategy of this study: current service systems, customer perception analysis, and prospective service development analysis. Different analysis tools have been adopted for each part of the study, and the outputs of the three parts complement each other to achieve the main proposes of this study. Through reviewing this chapter, the reader will notice in the first section that Palestinian telecom companies have in-house developed service systems. However, he will see in the second section that the current service systems are still immature, and customer perception analysis showed negative gaps between actual perceived services and customer expectation. In the third section, the reader will recognize the recommendations and suggestions of telecom experts for effective NSD system.

4.2 Current Service Systems

It is clarified in the research strategy that the initial phase of this research is a preliminary study aiming to describe the current service systems of telecom industry in Palestine. The author adopted two tools to collect qualitative data, these being informal interviews and participant observation.

For the informal interviews (unstructured), four participants have been interviewed, and they were selected from three companies specialized in the elecom industry. Two of the four participants changed their job during the last five years. The second tool was practitioner observation by the researcher himself, who is an employee in a leading company of the telecom industry in Palestine, and has more than ten years of practical experience in activities related to NSD.

The researcher summarized his findings in the preliminary study as follows: all companies in Palestine that are specialized in telecom industry adopt NSD processes in order to manage and control different tasks of the process as proper ways for a business's success and growth. Moreover, liberation of telecom market in Palestine enhanced awareness towards management importance of service development during the last few years. As a result: many companies go into the market to provide different services of telecommunication and internet, and start looking to improve different aspects of services to win more customers. However, evaluations of adopted service development systems showed that related processes are

still immature and largely depend on self-experience. Furthermore, the reaction towards competitors acquires a considerable part of service development regardless how that aligned with adopted service development process.

The NSD process is still immature for many reasons: competition of telecom industry in Palestine is new to market, with only one provider of telecommunication and limited internet services present for the last ten years. Obstacles made by the Israeli occupation that hinder and disrupt strategies and plans of Palestinian companies is another reason for the process immaturity, with unclear restrictions towards importing new equipments, and other restrictions towards adopting new technologies and using frequency spectrum for wireless services. Furthermore, all telecom companies in Palestine except one are local companies in terms of origin and labor market with limited integration and/or partnerships with regional organizations. All of this depends on self experience and the best practices used locally to develop service systems. Finally, reaction strategies usually do not align with processes. In addition to internal reactions to win more customers, Palestinian telecom companies frequently react to Israeli providers, who are competing illegally and have the full support of the occupation in providing telecom services to Palestinian customers against international agreements.

On the other hand, it was noticed that most companies are looking to achieve effective service development process as a driver of sustainable

development of their service system. For this reason, companies adopted different approaches to achieve this goal. They started adopting international standards and systems such as ISO, ETOM, OSS, ..etc., in order to manage their work. They are also attending international conferences and sessions related to service managements and development in order to exchange experiences. Moreover, many companies contracted with international consultants to define and design certain tasks of the process aim to achieve an end-to-end processes that fits the Palestinian context.

4.3 Customer Perception Analysis

After completion the phase of understanding the current service system of the telecom industry in Palestine, the next phase was to measure the level of quality of these service systems from customers perspective by using quantitative survey. The author adopted a well-known international scale for measuring service quality called (SERVQUAL) developed by Parasuraman et al (1985, 1988). The scale has twenty-two closed-ended questions to measure five dimensions of service quality. The participant filled his/her expectation and perception of each question using a seven-points scale to rate their level of agreement or disagreement (1-strongly disagree, 2-disagree, 3-somewhat disagree, 4-neither agree nor disagree, 5-somewhat agree, 6-agree, and 7- strongly agree).

Service quality scores are the difference between the perception and expectation scores (P-E) with a possible range of values from -6 to +6 (the

higher numbers indicate higher level of quality). In other words, the quality score measures the service gap or the degree to which expectations exceed perceptions.

It is important to check the reliability of data before starting data analysis in order to determine the credibility of finding results. According to Bryman and Bell (2007), reliability checks whether or not respondents' scores on any one indicator tend to be related to their scores on the other indicators. Therefore, the researcher used Cronbach's alpha factor to test internal reliability of data, Cronbach's alpha ranges between "zero" and "one" (zero denoting no internal reliability and one denoting perfect internal reliability) while values above 0.60 indicate favorable internal consistency. Table 1 shows the reliability values measured per dimension for both perception and expectation data.

Table 1: Reliability Coefficient (Cronbach's alphas)

Dimension	Number of items	Cronbach's alphas (Perception)	Cronbach's alphas (Expectation)
Tangibles	4	0.782	0.820
Reliability	5	0.884	0.855
Responsiveness	4	0.897	0.940
Assurance	4	0.857	0.914
Empathy	5	0.894	0.912
Total	22	0.959	0.957

The table above shows high values of Cronbach's alpha for different dimensions of SERVQUAL model, with the total Cronbach's alpha close to 0.96 indicates an overall reliability. Such value exceeds the Parasuraman et

al (1988) study, which was 0.92 and close to the values of the Loke et al (2011) study of telecom services in Malaysia, which varied between 0.832-0.929. These values indicate that these dimensions comprising of various items show a true measure of service quality.

The initial step of data analysis was measuring mean values of customers' perceptions, customers' expectations, and quality gaps per item and per dimension of the SERVQUAL module, the output being clarified in Table 2 for the five dimensions of the scale and in Table 3 for each item of the five dimensions. Note that 504 successful applicants have been received and were valid for analysis.

Table 2: Mean Values of Customers' Perception, Customers' Expectation, and Quality Gaps per Dimension

No	Dimension	Perception	Expectation	Gap
1	Tangible	4.43	6.17	-1.74
2	Reliability	3.44	6.16	-2.72
3	Responsiveness	3.75	6.55	-2.80
4	Assurance	4.16	6.59	-2.43
5	Empathy	3.78	6.44	-2.66

Tables 2 and 3 show that customers' expectations exceeded the perceived level of services, which resulted in a negative gap scores (Perception – Expectation), and that agreed with Parasuraman et al (1988), who believes that consumer's expectations commonly exceed the actual service perceived and this signifies that there is always a need for improvement.

Table 3: Mean values of Customers' Perception, Customers' Expectation, and Quality Gaps per item

	No.	Item	P	E	Gap
Tangibles	Q1	Excellent Telecom companies will have modern looking equipment.	3.62	6.33	-2.71
	Q2	The physical facilities at excellent telecom companies will be visually appealing.	4.29	5.98	-1.69
	Q3	Employees at excellent Telecom companies will be neat in their appearance.	5.15	6.24	-1.09
	Q4	Materials associated with service (pamphlets or statements) will be visually appealing at an excellent telecom company.	4.66	6.13	-1.47
Reliability	Q5	When excellent telecom companies promise to do something by a certain time, they do.	3.36	6.02	-2.66
	Q6	When a customer has a problem, excellent telecom companies will show a sincere interest in solving it	3.55	6.13	-2.58
	Q7	Excellent telecom companies will perform the service right the first time.	3.42	6.14	-2.72
	Q8	Excellent telecom companies will provide the service at the time they promise to do so.	3.63	6.51	-2.88
	Q9	Excellent telecom companies will insist on error free records.	3.24	6.01	-2.77
Responsiveness	Q10	Employees of excellent telecom companies will tell customers exactly when services will be performed.	3.47	6.52	-3.05
	Q11	Employees of excellent telecom companies will give prompt service to customers.	3.58	6.53	-2.95
	Q12	Employees of excellent telecom companies will always be willing to help customers	3.99	6.6	-2.61
	Q13	Employees of excellent telecom companies will never be too busy to respond to customers' requests.	3.94	6.54	-2.6

Assurance	Q14	The behavior of employees in excellent telecom companies will instill confidence in customers	3.97	6.52	-2.55
	Q15	Customers of excellent telecom companies will feel safe in transactions.	3.76	6.63	-2.87
	Q16	Employees of excellent telecom companies will be consistently courteous with customers.	4.80	6.56	-1.76
	Q17	Employees of excellent telecom companies will have the knowledge to answer customers' questions.	4.11	6.64	-2.53
Empathy	Q18	Excellent telecom companies will give customers individual attention.	3.58	6.33	-2.75
	Q19	Excellent telecom companies will have operating hours convenient to all their customers.	4.44	6.56	-2.12
	Q20	Excellent telecom companies will have employees who give customers personal service.	3.93	6.31	-2.38
	Q21	Excellent telecom companies will have their customers' best interest at heart.	3.44	6.60	-3.16
	Q22	The employees of excellent telecom companies will understand the specific needs of their customers.	3.49	6.43	-2.94

Applying pair t-test to check the difference between customers' perception and customers' expectation shows a significant difference in the five dimensions of SERVQUAL scale as show in Table 4.

Table 4 : Paired samples t-test for dimensions of service quality

Perception and Expectation	Paired Differences					t	Df	Sig. (2-tailed)
	Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
P1: Tangibility	-1.74	1.45	.064	-1.86	-1.61	-26.91	503	.000
P2: Reliability	-2.72	1.79	.080	-2.88	-2.57	-34.23	503	.000
P3: Responsiveness	-2.75	1.74	.077	-2.90	-2.60	-35.40	503	.000
P4: Assurance	-2.48	1.70	.076	-2.63	-2.33	-32.78	503	.000
P5: Empathy	-2.65	1.77	.080	-2.80	-2.49	-33.28	503	.000

According to Table 3 and the chart in Figure 4, the items with the highest expectation scores were: knowledge to answer customers' questions (6.64), customers feel safe in transactions (6.63), willing to help customers (6.60), and customers' best interest at heart of companies (6.60). However, these scores are not very different from scores of other items. The minimum score was at the value of (5.98) and related to measure expectation of visual appealing of the physical facilities of the companies. Such convergence of scores with an average of (6.38) would generally imply that consumers have very high expectations from their telecom service provider.

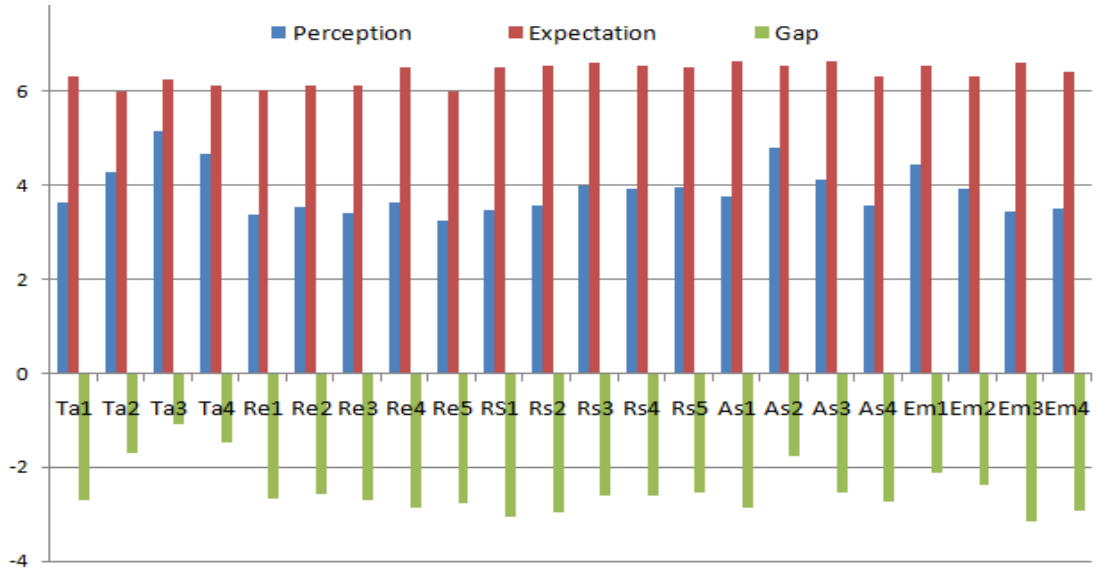

Figure 4: Mean Values of Customers' Perception, Customers' Expectation, and Quality Gaps per item of SERVQUAL scale

The items rated highest by respondent for actual perceived service were: employees are neat in their appearance (5.15), consistently courteous with customers (4.80), materials associated with the service (pamphlets or statements) are visually appealing (4.66), and operation hours are convenient to all customers (4.44). On the other hand, most of the other items have lower scores of perceptions, the lowest items for actual perceived service were: insisting on error free records (3.24), fulfilling their promise to do something by a certain time (3.36), performing the service right the first time (3.42), and customers' best interest at the heart of companies (3.44). There were some differences between perception scores of items, with a few items having relatively high scores while the rest have lower scores. When ignoring the highest five scores, the average of actual perceived decreased from (3.91) to (3.65). In general, the previous results imply that customers consider actual perceived service is at a lower level and even fewer items have relatively better scores, and telecom companies

have a wide range of possibilities to enhance the level of actual perceived service.

We analyzed the gap scores (difference between the perception and expectation scores) that measure service quality, and hence customers' satisfaction. The more perceptions are closer to expectations, then the higher the perceived level of quality. The smallest gaps of scores were: employees neat in their appearance (-1.09), materials associated with the service (pamphlets or statements) are visually appealing (-1.47), visual appealing of physical facilities of companies (-1.69), consistently courteous with customers (-1.76). On the other hand, the largest gaps scores were: customers' best interest at heart of companies (-3.16), telling customers exactly when services will be performed (-3.05), employees give prompt service to customers (-2.95), the employees understanding the specific needs of their customers (-2.94). Customers' perceived service did not meet their expectations as all gap scores are negative. Moreover, sixteen items have gap scores less than (-2.5), indicating that there is a significant gap that includes different dimensions of service quality. Therefore, effective investigation of current service systems is needed to find the root-causes of low customers' perceive service; and then to determine the required treatment to enhance and bridge the quality gaps.

Table 5 shows a summarized data of the five-dimensions of the service quality model (SERVQUAL).

Table 5: Means, Standard Deviations, Skewnesses, Minimum, and Maximum values of SQ Dimensions of Customer Perception, Customer Expectation, and Quality Gaps

Dimensions	Tangible	Reliability	Responsiveness	Assurance	Empathy
Perception (av.)	**4.43**	**3.44**	**3.75**	**4.16**	**3.78**
SD (per.)	1.70	1.84	1.84	1.89	1.87
Skewness (per.)	-2.11	-2.19	-3.58	-3.68	-2.94
Minimum (per.)	3.62	3.24	3.47	3.97	6.31
Maximum (Per.)	5.15	3.63	3.94	4.80	6.60
Expectation (av.)	**6.17**	**6.16**	**6.55**	**6.59**	**6.44**
SD (exp.)	1.40	1.48	1.12	1.10	1.18
Skewness (exp.)	-0.42	0.20	0.03	-0.23	0.02
Minimum (exp.)	5.98	6.01	6.52	6.52	3.44
Maximum (exp.)	6.33	6.51	6.60	6.64	4.44
Gap (P-E)	**-1.74**	**-2.72**	**-2.80**	**-2.43**	**-2.66**
SD (P-E)	0.40	0.12	0.13	0.28	0.21
Minimum (gap)	-2.71	-2.88	-3.05	-2.87	-3.16
Maximum (gap)	-1.09	-2.58	-2.60	-1.76	-2.12

The average score of actual perceived services of the five dimensions was (3.91): tangible dimension (that represents physical facilities, equipment and appearance of personal) has the highest perceived scores at the value of (4.43), while reliability dimension (that represents ability to perform the promised service dependably and accurately) has the lowest perceived score at the value of (3.44). On the other hand, different

dimensions of customers' expectations converged to higher scores (average 6.38): assurance dimension (that represents knowledge and courtesy of employees and their ability to inspire trust and confidence) and responsiveness dimension (that represents willingness to help customers and provide prompt service) have the highest expectation scores (6.59, 6.55 respectively). Reliability and tangible dimensions have the lowest expectation scores (6.16, 6.17 respectively). For both perceived services and expectation scores, only tangible items of perceived services have some divergent scores that vary between (3.62) and (5.15), while other scores are vary between minimum and maximum with amount less than 1.

Comparing service dimensions gaps, all of them have negative values as shown in Figure 5. However, the gap of tangible dimension was the best at a score of (-1.71), and has the best perceived service scores and almost the least customers' expectations scores. The other dimensions have convergent average gap scores which vary between (-2.44), representing assurance gap, and (-2.80) that represents a responsiveness gap.

Figure 5: Mean Values of Customers' Perception, Customers' Expectation, and Quality Gaps per dimension and final unweighted average

Analyzing the above scores shows that telecom companies need to improve their service development systems at different dimensions according to the service quality model (SERVQUAL), and more attention should be given for low scoring dimension gaps.

As a conclusion of the last analysis, the finding of this phase of research can be summarized as follows. Telecom customers in Palestine still expect high level of service quality that includes all dimensions of service quality. Special conditions and limitations in Palestine due to obstacles imposed by the Israeli occupation did not impact high expectations of Palestinian customers. Moreover, unfair competition by Israeli providers (who are not authorized to sell services on the Palestinian market and do not have limitations like Palestinian providers) maximizes Palestinian customers' expectations, since Palestinian customers compare Israeli and Palestinian Providers. On the other hand, the same customers show a low level of actual perceived telecom services of different dimensions of service quality, which indicates an urgent need to enhance

the telecom service development system in Palestine to eliminate the gap between actual perceived service and customers' expectations.

4.4 Prospective Service Development Analysis

The third phase of this study was to get feedback from telecom experts in Palestine regarding this industry, and to learn from their experience how to develop successful new services; thus, exploring a framework for service system development. Therefore, semi-structured interviews with eight experts have been conducted to get qualitative data, the experts having senior positions in telecom companies in Palestine. After the interviews were conducted, thematic analysis has been chosen as the method to analyze the data based on the guidelines of Braun and Clarke (2006), noting that eight-interviews are valid for thematic analysis in order to produce perceptive themes according to McCracken (1988).

Table 6: Generated Codes

The generated codes that describe main essence of each sentence		
Service strategy	Target	Organizational process
Pull strategy	Budget	Bureaucracy
Push strategy	Pricing	Holistic process
Strategy linking	Quality	Agile process
External factors	High quality	Development
Service planning	Satisfaction	Time-to-market
Service defining	CRM	First to market
Service concept	Media and advertising	Time management
Product definition	Assessment phases	Product life cycle
Changing requirement	Pilot project	Implementation plan
Rapid change	Smart pre-lunch	Feedback analysis
Resource analysis	Prototypes	Dynamic customer needs
Competitor reactions	Quality assurance	Needs & wants
Focus groups	Qualified team	Success factors
Market research	Teams	Technology tools
Forecasting	Team conflict	Reporting
Targeted survey	Cross functional teams	Technology trends
Targeted customers	Periodic meeting	Service delivery
Multiple survey	International interaction	Mass market
Periodic survey	Competences	Understanding customers
Research	Less experience	Competences
Customers monitoring	Others experience	Marketing
Customer feedback	Different Processes	Innovation
Feasibility	KPIs factors	Innovational ideas
Business case	Linear process	Generate ideas

Before starting the thematic analysis, the researcher prepared the data in a unified structure by listening and reviewing both audio recording and notes taken during the interviews, which were transcribed literally. As a result,

eight transcribed copies of raw data were completed and were ready for the next steps of analysis.

The initial step in the analysis was getting familiar with gathered data. The researcher went through each copy of the transcribed interviews repeatedly until he became familiar with the information contained therein. The next step was the generation of codes. This was done by ascribing each sentence a code that described the main essence of it, and then gathering the codes with similar meanings into mother codes. Table 6 shows these generated codes, while Table 7 shows mother codes arranged on the basis of relationship between them in preparation for themes generation in the next step.

Table 7: Mother Codes.

The mother codes that gathering similar codes*		
Strategy	Different processes	Pre-lunch
Plans & planning	KPIs factors	CRM
Research	Internal aspect	Success factors
Surveys	Innovational aspects	Adverting
Business study	Time management	Teams structure
Idea generations	Technology management	Team conflict
Resource analysis	Technology trends	Teams interactions
External factors	Competition	Experience & competence
Dynamic customer needs	Time-to-market	Monitoring
Market	Service delivery	Feedback analysis
Cost	Assessment phase	Market share
Requirement	Pilot project	

** Codes arranged on the basis of relationship between them*

The third step was the search for patterns (themes) by gathering mother codes into more and more abstracted codes. Checking relations between codes and theoretical understanding background also contributed into finding the themes, the generated themes are shown in Table 8.

Table 8: The Initial Themes of Data Analysis

No.	Initial themes
1	Strategic planning and market research determine new service.
2	External factors & new technologies impact selection of new services.
3	Organizational aspects and customer needs determines the development process of services.
4	Introducing & adaptation of new technologies can facilitate New Service Development process.
5	Externals (i.e. competitors, Israeli occupation, ..) slow or cause failure of service development.
6	Different advertising & proper CRM leads for successful processes of service development.
7	Qualified teams-works and partners are powerful players for service delivery.
8	Pre-lunch assessment and preparation is important for successful service delivery.
9	Reviewing strategies, considering feedback and market share analysis are effective tools for successful service development process.

Finally, the initial themes were reviewed by checking them against the individual transcripts and the entire data set, and more reviews (by moving forward and back used between the whole data) guided the process in determining the final themes as show in table 9.

Table 9: The Final Themes of Data Analysis

No.	Final themes
1	Selection of new services.
2	Activities of New Service Development process.
3	Technology trends enhance New Service Development process.
4	Obstacles of New Service Development process.
5	Success factors for service development process.

The author summarized his findings in the prospective service development analysis in the following themes.

4.4.1 Initiation and Selection of New Services

With this theme aimed at identifying the foundation of the NSD process, since most interviewees consider new service selection as the most important activity of the process. Service selection has more to it than selecting one or more service within a group of candidate services. It needs clear service strategy and organizational tools to generate ideas for new services.

Interviewees agreed on the importance of service strategy as a guide for service development process, and most of them considered service strategy as the core of organization strategy. Moreover, they believe that the ultimate goal of service strategy is satisfying both customers and stakeholders, and thus achieving the overall organizational goals. Service strategy helps service audiences in defining service concepts and targeted

customers, as well as steers the financial process to study feasibility and value creation. But interviewees commented that senior management should decide the service strategy of the company based on market trends and capabilities analysis.

Most interviewees were satisfied with the capabilities of their employees to generate new ideas by adopting both innovational and intelligent approaches. The sources of ideas can be either internal or external sources. On the other hand, they believe that telecom industry in Palestine is still lagging behind modern countries, making the best sources of ideas as the experiences of others. Moreover, other intelligent approaches such as market research and technology trended analysis are effective sources of new ideas. Innovational approaches such as brainstorming represent additional sources of new ideas. As conclusion, one interviewee categorized sources of new ideas into technology driven ideas (i.e. high speed base services), customer driven ideas (i.e. wireless service), market driven ideas (i.e. bundle services), value driven ideas (i.e. low price services), and competitor driven ideas (i.e. promotional campaigns).

Finally, interviewees suggested aligning service strategy and candidate ideas in order to select successful ideas. They also pointed out that the alignment process is not only a screening tool against pre-defined roles, but also a correlation between different inputs to handle all variables such as resources, technology trends, market trends, and market share. Taking into

consideration that the feasibility of a study is a part of service selection process.

4.4.2 Activities of New Service Development Process

Similar to the case of most processes, interviewees agreed on three main phases of the NSD process: definition, design, and delivery, where each phase has different activities. Although there is no s consensus on detailed activities, interviewees suggested similar outlines of activities to fulfill the process. The researcher can categorize suggested activities of the three phases in the following discussion.

Definition phase includes: service strategy formulation, ideas generations, ideas selections, feasibility study, service planning. Interviewees highlighted the importance of these activities for the overall process. Many of them have recommended a cross functional team to handle these activities. Such teams to be selected from different departments under marketing leadership have different skills sets such as strategic, commercial, finance, and engineering. All are needed for proper decision-making and preparation for next phases.

Design phase includes: service flow design, service parameters setting, service integration design, and service testing. These activities are the most critical activities of NSD process according to the interviewees, who feel it is the manufacturing of “services” starting from service concept to service test. Interviewees agreed about the importance of both output quality and

time-to-ready of services, and expect high commitments from service design audience.

Delivery phase includes: pilot run, resources allocations, service launch, feedback analysis, and strategy reviewing. “Most challenges of NSD process lie in delivery activities” one of interviewees said. It is very important to offer services on time and complete from the beginning. Also, advertisement and oriented teams can achieve impressive results. On the other hand, the voices of customers and satisfaction level are tools for service assessment and correction actions.

4.4.3 Technology Trends Enhance New Service Development Process

Interviewees agreed that rapid technology evolution supports the NSD process over different activities and leads to overall enhancement. Technology development usually is associated with new ideas and opportunities, as new generations of equipment and technologies can enable the creation of new ideas for services. Also, evolutions of technology enable new tools to customize services, enhance quality, and reduce cost.

Moreover, technology trends support standardization of systems and processes based on international references. This leads to speeding service integration between different systems and departments, and thus reducing the time-to-market framework with high quality and minimum cost.

Otherwise, it is impossible to pass the required integration within acceptable time, quality, and cost.

Finally, technology trends are going fast towards automated systems of operational processes, which cause a radical change in service delivery. Therefore, interviewees pointed out importance of adapting automated flow of operational processes. In other words, new technology allows integration between operational processes and customers interfacing (such as web or IVR) and telecom devices. This technology, if adopted, will enable customers to add and execute orders at any time using internet or IVR systems without human interaction. Similar radical change should occur in terms of advertizing by adopting electronic announcements and social media web pages.

4.4.4 Obstacles of New Service Development Process

During the interviews, it was noticed that obstacles for the NSD process could be categorized into internal and external obstacles, which will impact the time that is a decisive factor in the service development process. Internal obstacles include (but are not limited to): lack of service roadmap strategy, bureaucratic management, team conflict, and shortage of resources. On the other hand, external obstacles include (but are not limited to): rapid service evolution (short life cycle) of telecom industry, competitors' reaction behaviors, regulator policies, and occupation limitations.

Interviewees were concerned about the lack of roadmap strategy as a major reference for the service system team. This absence of the service strategy will impact the harmony between various activities of service development process. Similar concerns were felt with regard to bureaucracy that delays execution time of activities and slows down team motivations. Also, most interviewees believe that team conflicts and one man shows will disperse efforts in a way that it will disturb the process flow. Finally, they indicated that shortages in resources (i.e. team, equipment, financial) usually confuse plans and harm the process output.

On the other hand, interviewees were aware about the short life time of telecom services compared to the development time of the service. Moreover, they were also concerned that during the service development process, competitors could react and advise audiences to consider different behaviors. The interviewees were also troubled by the service approval taking time by MOT to approve the service that may delay the service launch. Finally, undetermined limitations by the Israeli occupation represent the major obstacles for the NSD process. Occupation restricts adopting important and advanced technologies such as 3G and WiMax. It also limits the usage of frequencies, with imported equipment for held for long periods. As a result, NSD and costing are negatively impacted. Adding to that, the situation is worse when we consider the illegal competition with Israeli telecom providers, who sell services to Palestinian customers without any restriction or legal form.

4.4.5 Success Factors for Service Development Process

Interviewees consider output services as successful if they achieve target figures and enhance overall satisfaction of customers. However, interviewees identified many factors that will lead to a successful service development process in the field of telecom industry in Palestine. It was possible to summarize the major factors according to the following four dimensions: telecom technology, customer needs, team structure, and time-to-market.

Most interviewees believe that fast evolution in the telecom technology is the most important factor for the NSD, and there are ongoing new generations of telecom technology that push the new services to the market in order to complement or replace current services. Therefore, service providers are supposed to be in line with technology development and thus have to support updated and differentiated services that will lead to a successful service development process.

Another important factor for a successful NSD process is to understand the customer's needs, which are very important for the process. The degree of understanding customers' needs will determine the level of successful output. Interviewees recommended different approaches to understand customer needs. Among these approaches, public surveys, focus groups as tools of market research, and the analysis of the customers' behavior to assess understanding of customers' needs were suggested.

Team's skills sets, cooperation, and structure are other important factors for successful NSD process according to the interviewees. They also recommended cross functional teams of qualified members to manage the process. However, they assumed full cooperation of audience departments would be necessarily to achieve success.

Reducing time-to-market is considered among the most important success factors of NSD in a competitive environment such as the telecom market. Interviewees strongly recommended reducing time-to-market to the minimum possible time, but without impacting service quality and cost. Usually, the life time of telecom services is short, and customers' needs do change. Therefore, the importance of time-to-market strengthens, and thus represents a surprise factor for competitors that weaken their reactions.

4.4.6 Overall Success of Service Development Process

During the semi-structured interviews, the researcher noticed certain conditions that sustain overall success of NSD process as a competitive advantage of the organization. Telecom experts recommend clear and approved service development processes, but they warn about rigid processes which do not assume a margin of flexibility to accommodate new requirements.

An additional condition for overall success is high commitment of both management and teams to process requirement. Most interviewees believe that different companies may have different service process details, and

such differences do not impact performance in the conditions of clear roles, credible team, and committed implementation. Therefore, it is valid to conclude that there are more than one forms of successful service development process.

Moreover, it was clear during interviews that in order to achieve an overall successful process, it is important to consider the critical economic situation in Palestine and the uncertain future it is facing. It is also considered vital to understand the Palestinian customers in term of their needs and their capabilities to pay. Therefore, most interviewees believe that value-based analysis is a critical factor for sustainable and successful service development process, and suggested more attention towards final prices during development process be given.

On the other hand, interviewees commented on the importance of output validation prior to service launch. Service design tests ensure service readiness and quality from the beginning, and market tests evaluate new services from the customer's perspective prior to commercial launch. The interviewees recommended targeted customers and pilot project for market test.

Moreover, interviewees commented on the importance of periodic service strategy review towards overall success of the process. They suggested three to six months between two sequential reviews. At each review, they recommended open discussion of new figures during that period in addition to external variables. Finally, they considered customers'

feedback as a trigger for continuous improvement during process loops. However, it is possible to know customer feedback by using direct contact with them (such as call centers and internet interfacing) or indirectly using surveys.

Chapter Five

Discussion of Results

5.1 Chapter Overview

The final part of this research is taking inputs from data analysis, and thus answers research questions and creates a framework for NSD process in Palestinian telecommunications companies. A list of success factors for telecom services as discovered through the interviews were included in the framework, while the drawbacks of quality gaps (difference between perceived and expected services) according to customer survey was addressed within proposed framework.

This chapter consists of three sections: the first section is about the answers of research questions. The second section shows the diagram of proposed framework, and the third section discusses its elements and flow. Thus, through reviewing this chapter, the reader will find how to develop successful telecom services in the Palestinian market by adapting the proposed framework.

5.2 Answers of Research Questions

In reference to research questions in the introduction, the aim of this research was to answer HOW-type questions about the general stages of NSD for the case of telecom industry in Palestine:

5.2.1 How to Define New Service for Telecom Industry in Palestine

Service definition represents all activities prior to actual implementations of new services. However, data analysis of this research determined three main activities of service definitions. These are: formulating service strategy, conducting market research and selecting new services. Thus, the author showed how to define new services by discussing his finding related to these activities.

5.2.1.1 Formulating service strategy that sustains organization competitive advantage

It is clearly visible in the results that service strategy is considered the core of organizational strategy, while issuing and reviewing service strategy is among the responsibilities of senior management. Moreover, the role of marketing is to manage the process of service development in order to align service strategy, and to make decisions regarding process criteria to select services. On the other hand, interviewees agreed that different departments within the organizations should provide related data inputs to executive management prior to issuing/reviewing service strategy. Such data should include analysis of dependences, capabilities, and future trends.

The telecom industry has specific characteristics such as fast evolution of services, and for the Palestinian case, the future is uncertain as a result of the Israeli occupation. Thus, it was proven that a better service strategy horizon should be limited to three to five years, with annual reviews as a

necessary activity to ensure compliance with organizational goals. Moreover, to achieve a realistic and viable service strategy, the results show that during annual reviews of service strategy, it is important to assess what has been accomplished against proposed strategy, and then to analyze gaps (if found) in order to formulate more realistic future strategies. Finally, service strategy is supposed to be clear and unambiguous. Thus, it can orchestrate employees' actions in a way that guarantees the achievement of goals and sustainable organizational success.

5.2.1.2 Conducting market research and understanding voice of customers

Understanding customers' needs and market trends are very important for successful new service development process. Thus, companies have to offer new services that satisfy customers' needs, and push for more services aligned to market trends. However, it is noticed during this research that quantitative public surveys and focus groups are the most common tools of market research to understand the customers' needs, and to know the customer response towards current services. The related suggestions is to conduct a periodic research quarterly in addition to others specific researches. Such researches should include, but are not limited to, the following: limitations of current services, aspirations of customers, impressions towards proposed services, preserved quality and overall customer satisfactions.

On the other hand, it was revealed by the survey's results that analyzing customers' behavior and their reactions towards specific services can help to determine market trends, and more results can be achieved by service value analysis. Moreover, new telecom technologies usually drive market trends, and neighborhood telecom markets represent valuable cases for Palestinian telecom market.

The findings of the study pointed to the importance of front offices, call centers, and social media web pages, as sources of valuable information to understand customers' needs and market trends. This is possible with less cost by asking related employees to discuss with customers about different aspects related to new services and needs. Such ongoing process depends on one-to-one informal interviewing and provides valid data for next intelligent analysis, while it was recommended to train employees on how to manage such interviews in order to get useful data.

5.2.1.3 Generating and screen ideas of new services

It was discussed during the analysis chapter, the Palestinian telecom market is a lagging market comparing to modern and neighboring countries. It was revealed by results that both the telecom technology trends and neighborhoods experience represent the main sources of new ideas. Such ideas could be obtained by asking for consultation, learning from vendors' recommendations, attending telecom conferences, and following up neighborhoods experience of new services.

On the other hand, the findings show that a lot of ideas could be generated internally within organizations by adopting both intelligent and innovational approaches. Pattern analysis of customer needs, market trends and competitor intelligence analysis are effective intelligent approaches, while brains-storming of diverse functional teams and swapping of members between different departments are powerful innovational approaches. However, the results consider the importance of organizational support to motivate employees in order to generate new ideas by creating an innovational atmosphere in addition to special rewarding systems.

Although it is common to screen new ideas against business feasibility evaluation, sometimes the raw analytical results of feasibility studies are inaccurate from strategic view. Thus, it was revealed by results that it is important to correlate analytical outputs of feasibility studies to subjective factors and organizational goals, which is to select successful services that aligned with organization service strategy. As a result, it is common to conclude that selection of successful services must align to organization goals and service strategy. Therefore, other purposes can support selection of new services such as increase market share, sustain customers' retention, enhance competition position, and future purposes.

5.2.2 How to Design New Service in Palestinian Telecom Organizations

Service design represents the creation of services by transforming approved ideas and business recommendations into useful, usable,

desirable, efficient and effective services. It is clearly visible in the results of study that design stage includes the following activities: formulating and articulating of a service, integrating with current systems, and testing and validating of a service. The following paragraphs discuss how to design new service.

5.2.2.1 Best practice of service design and customer involvement

The results show that there is more than one successful scenario of service design, and successful designs usually originate from current design by incremental changes rather than radical changes, which should match overall development process. However, it is recommended according to the finding to follow international standards of service designs such as ETOM and ITEL, which facilitate different requirements and simplify future integrations. Moreover, it is recommended to include technological tools for service, such as automated flow of orders and instantaneous execution of requests (for cases do not need human interaction). As a matter of fact, the results raise a warning of copying successful experiences of others without investigating the environment and condition.

Moreover, the role of voice of customer in service design is critical, and the results show that it is important to design services in a way that satisfies customer needs. For example, if a customer prefers to use online applications (using internet and/or call centers) rather that face-to-face interaction with employees in front offices, then it is important to include such technologies within service design. Thus, it is clearly visible in the

findings that successful organizations know the ambitions of their customers towards service design such as ordering, service agreement, service delivery and support. Having said that, the organization can adopt tools such as Quality Function Deployment (QFD) that was developed by Yoji Akao in 1966 to transform the voice of customer into the engineering characteristics for the purpose of service design.

5.2.2.2 Testing and validating of services prior to commercial launch

It was verified in the study that service testing prior to commercial launch is one of the success factors of new services. Both technical and commercial tests are recommended to make sure that the service matches the customer needs and operates as intended. From technical perspective and after the service readiness, it is important to make sure that service is faultless, completed, and delivered to customers right from the first time without malfunctions according to the results of the study. Thus, the investigation team should test different parameters of a service against planned ones. They also investigate service integration with related systems within the organization such as ordering, assurance, and billing systems. Specifically, the findings of the study recommend service simulation for technical tests by starting with testing-environments and then actual-environments.

On the other hand, the results show that commercial testing is necessary to ensure marketing success after commercial launch. Two commercial tests are recommended. The first one is a pilot test (or prototype) of a service by

offering service to a segment of customers selected according to certain criteria such as a specific locality. Such a test assesses the market before full scale coverage, and therefore may save huge investments in unsuccessful services or new technology design. The second test is the market test by offering the service for targeted customer free of charge (or reduced charge), and ask them to evaluate the service from different perspectives such as cost and quality. For both of the above mentioned commercial tests, it is possible to evaluate different dimensions of a new service prior to full scale launch. If any gap is found, then it is possible to enrich and enhance the service to bridge the gaps.

5.2.3 How to Deliver New Telecom Service in the Palestinian Market and sustaining continuous improvement of the New Service Development process?

Service delivery represents the interaction with customers to initiate the desired service in high quality, which includes service introducing and customer interacting. Moreover, it is important to handle challenges of new service development and sustain continuous improvement of the new services development process. The following paragraphs discuss how to deliver a high quality service and sustaining new service development process according to the results of the study.

5.2.3.1 Ensuring effective service delivery

It was revealed by results that in order to consider delivery of service as “effective”, is it important to deliver services on time (as promised) and

correctly from the first time. However, many factors impact achievement of these assumptions. According to the finding of the study, it is recommended to review operational process of a service delivery against performance and quality parameters. Another factor to achieve the previous assumption is the conduction of good training of delivery teams, mainly front line teams, in terms of the knowledge of the new service characteristics, delivery process, and dependences. Moreover, it is necessary to support customers with more attention for the first few days and guide them for the best usage of a new service, which enhance the image of the new service and attract more new customers.

On the other hand, the result of the study warned of delivering "best offered" services, in order to keep on high reputation of company. Best offered services usually cause delay in delivering services, or service unavailability, or any other shortage that harm service quality and customers satisfaction.

5.2.3.2 Best approach to overcome challenges of the new service development process?

For any new service development process there are different challenges that could harm the progress, and therefore could threaten the success of the development process. For this purpose, it is important to consider these challenges to eliminate bad impact. The findings of this study show that one of the most difficult challenges that impact new service development process of telecom industry in Palestine is the

restrictions imposed by the Israeli occupation, which is unreasonable, and it is impossible to predict when it will be resolved. Therefore, the results of the study emphasize the importance to consider alternative plans or alternative scenarios for issued plans, and for those plans to be used temporally or permanently to cap the shortages of the originals. Also, the findings of the study consider the competitors' reactions as critical challenges for new service development process, and advise audience to predict a set of possible reactions, which help them to avoid potential risks of expected reactions by setting probe plans.

The results of the study show that inconsistency between results of new services and supposed results is another challenge for new service development process, which raises a question about effectiveness of the process itself. In such cases, the findings of the study are to investigate reasons of result deviations instead of blaming the process. Sometimes, sudden external factors can lead for unexpected results especially in the Palestinian context, or related to industry evolution. However, when the main reason of deviation is identified, it is possible to investigate the cause against services development process and how to avoid similar cases in the future. Such investigation may include process improvement.

5.2.3.3 Ensuring recovery and continuous improvement of new services development process?

The ultimate goal of new service development process is to sustain development of successful services as competitive advantage of

organization according to the finding of this study. To achieve this, it is recognized that there is significant importance on the flexible process, which is able to accommodate continuous updates and special conditions. Moreover, the results show that it is crucial to validate new services against supposed ones prior to commercial launch, and later reviewing results after commercial launch to check level of success and how it is aligned with organizational strategy.

Minimum time-to-market is an important factor for success of new services in the telecom industry according to the results of the study. Thus, development process should eliminate overhead time of activities as much as possible, as well as the waiting time, horizontal communications between audience and performance monitoring are helpful tools to eliminate delays and overhead times. Moreover, it is effective to adopt parallel implementation of activities and sub activities rather than series flow, assuming that there is an ongoing process that supports parallel flow through multiple integration.

Finally, it was revealed by results that most important point to achieve overall success is the audience commitments toward process needs and their cooperation as a team work to fulfill proper end to end operations. Such commitment and cooperation can recover and sustain the development process against any defect or distortion. Thus, and regardless of opinions about the process, it is crucial that each audience of NSD process has to be committed to the process, while it is possible to raise

flags for enhancement when any gap or defect noticed as a continuous improvement of the development process.

5.3 Diagram of Proposed Framework

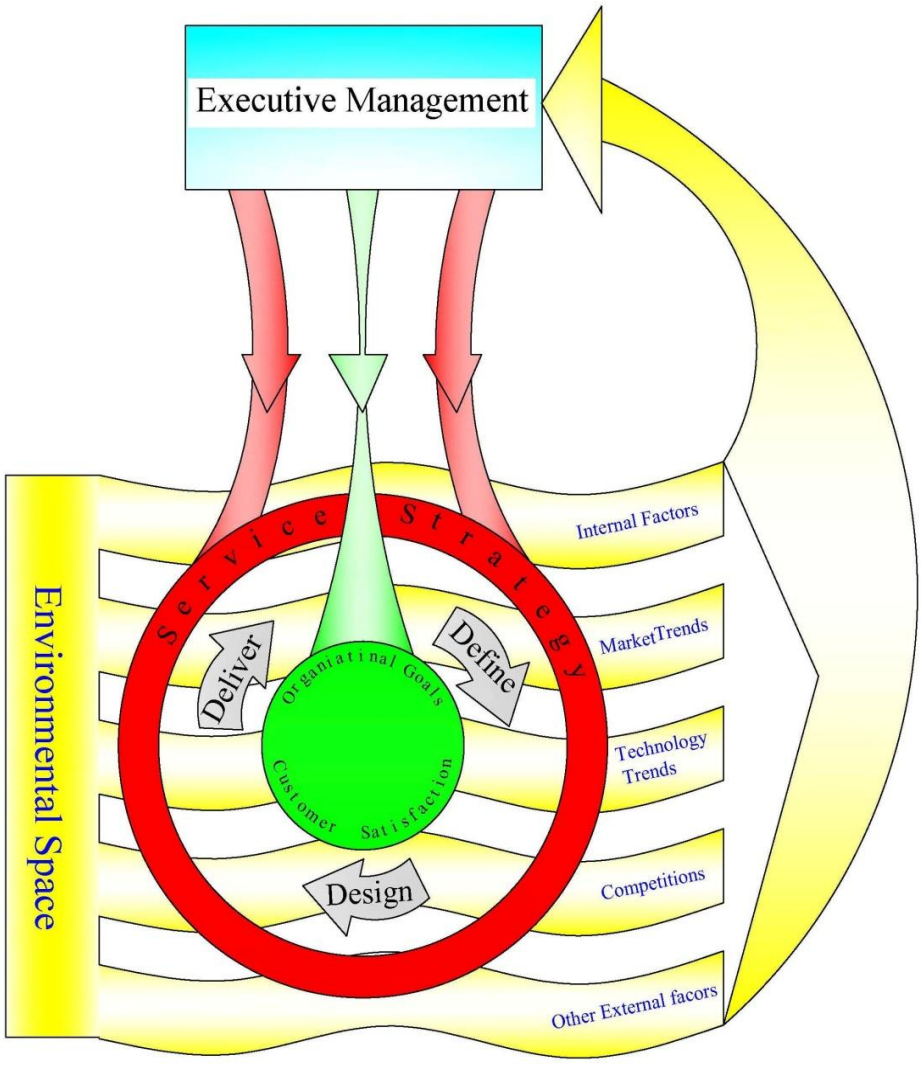

Figure 6: Proposed Framework of New Service Development process for Telecom Industry in Palestine

5.4 Elements of Proposed Framework

The proposed framework in this research (Figure 6) inquiry contains four elements: first, the three stages for the NSD process. Second, the

environmental space that impacts the NSD process. Third, the boundary domain for the NSD process. And fourth, the targets of the NSD process.

The framework shows the construction stages for the NSD process: service “Definition” as an input of the process, service “Design” as the process itself and service “Delivery” as an output of the process (summarized as triple D process). However, detailed activities for each stage can vary between different companies according to their needs and evaluations. These activities could be updated or modified within the company when and if needed. In other words, the continuous development of the process is vital to sustain future improvement. Moreover, the process is going into cycle mode, which includes continuous revision of different activities and related throughput, allowing for different integrations and parallel flow. The new service may go through the process loop more than once before it is finalized and ready for commercial launch.

On the other hand, environmental space that impacts the NSD process was categorized into five background forces. These are organizational factors, market trends, technological trends, competition, and the rest of external factors (i.e. regulator and Israeli occupation). Such forces determine different aspects related to new services, starting from early idea generations all the way to the delivery stage, followed by evaluation and making the necessary modification if it is needed. Since each factor steers the NSD process in a certain direction, then the output and related characteristics reflect the correlation of these factors. All factors of

environmental space have impact on the three stages of NSD process, but the level of impact it could be different in some activities when comparing to others.

The targets of the NSD process are summarized into two main targets according to proposed framework, the first one being achievement of organization goals and the second target is sustaining high level of customers' satisfaction. The organizational goals represent both of financial goals and reputations goals while customers' satisfaction represents high quality and thus customers retentions and loyalty. In order to achieve these targets, the process will round and update continuously (iteration loops) to sustain full development and achieve all mentioned goals.

Moreover, in the proposed framework, service strategy represents the boundary domain for the NSD process that guides process flow within organization strategy domain. Even environmental space may generate different throughput, but final services must be aligned with service strategy. However, service strategy has no direct effects on the process or the flow of the activities, but steering the process though the environmental space (four main factors) towards the targets of the process.

Finally, it is possible to conclude that proposed framework represent circular ongoing process, rather than waterfall or gated pipelines, also it is not an innovational framework even it allows innovational activities. Such framework considered evolving of telecom industry and compromising of different circumstances. Furthermore, it does not determine the details of

activities, and letting that a particular of organizational learning and best practices, which supports continuous updates to enhance overall process.

Chapter Six

Conclusion and Implications

6.1 Chapter Overview

The purpose of this chapter is to draw conclusions from this study. The first section discusses the summary of findings and conclusions, while the second section discusses the implications and recommendations. The final section leads to implications for further discussion.

6.2 Summary of Finding and Conclusions

The research consists of three parts: the first part is a preliminary study of the current service system of telecom industry in Palestine, while the second part deals with a customers' perception analysis by measuring service quality of telecom services in Palestine. The final part is a prospective service development analysis by listening to the telecom experts from Palestine. The findings of these three research parts are summarized in following paragraphs.

Although the competition among telecom industry providers is recent to the Palestinian market, telecom companies in Palestine keenly consider the importance of service development for business in order to success and grow. Looking to achieve effective NSD process as a driver of sustainable development for their service system, however, they still use in-house developed service system, which is largely depending on self

experience and reactions towards the market and the competition. Generally, it is possible to conclude that current service development systems are still immature for many reasons. Telecom competition is new while the Israel occupation hinders the process, and Palestinian companies have no or limited integration with regional organization.

The second part of the study is customer perception analysis that measures service quality of telecom services in Palestine according to the SERVQUAL scale. According to the results, telecom customers in Palestine show low level of perceived telecom services through different dimensions among service quality, especially the reliability ones. On the other hand, same customers expect a high level of service quality that almost includes all items, while special conditions and limitations in Palestine due to obstacles imposed by the Israeli occupation did not reduce high expectations among Palestinian customers. Thus, the proven significant difference (negative gap) between actual perceived service and customers' expectations indicates an urgent need to enhance current service development system of telecom industry in Palestine to eliminate that gap.

The third part of research is prospective service development analysis by listening to telecom experts from Palestine. Then using thematic analysis, the researcher was able to find the following six themes, first, experts consider selecting the new services as the foundation for the NSD process. Second, it is possible to categorize activities for the NSD process into three main phases: define, design, and deliver (summarized as 3Ds

process). Third, technology evolution and trends. Experts agreed that technology can enhance the overall process from two perspectives, supporting new ideas of services and enabling new tools to improve the process. Fourth, is about obstacles of NSD process, indicating that the most important obstacles are the lacking of service strategy, bureaucratic management, team conflict, rapid evolution of telecom services, and occupation limitations. Fifth theme, success factors for NSD process. The most important factors for success are: understanding customer needs, team structure, and time-to-market. The sixth theme was about the overall success of the process. Experts believe that a flexible process and high commitment of stakeholders, in addition to continuous revision of service strategy can sustain continuous improvement for the NSD process.

6.3 Implications and Recommendations

The study shows that actual perceived telecom services in Palestine are much less than customer expectation, which includes different dimensions of service quality. Therefore, telecom organizations should focus their efforts and recourses to improve quality, and in same manner. customer satisfaction and loyalty. Moreover, management efforts and intensive strategy must be focused and given significant improvement towards the items that are least satisfied, specifically the least-satisfied five ones, which identified as:

- Customers' best interest at heart of the company.
- Telling customers exactly when services will be performed.

- Giving prompt service to customers.
- Understanding the specific needs of customers.
- Providing the service at the time they promise to do.

To sustain continuous development of competitive telecom services, organizations have to adopt clear service strategy in order to steer and orchestrate efforts of stakeholders. Moreover, and specifically for telecom industry, it is very important to review service strategy periodically against planned expectation. On the other hand, telecom companies must be committed to flexible NSD processes that consider different internal and external factors, such as team competences and structure, market and technology trends. However, companies can start from current immature NSD processes and gradually progress towards a final, stable one.

One of the main obstacles of telecom serviced industry in Palestine is related to the Israeli occupation. Telecom companies have to consider alternative plans to eliminate the impact of restrictions by occupation. On the other hand, companies have to support every effort to slander the restrictions imposed by the Israeli occupation on the Palestinian telecom industry in various international hubs. This could be achieved by supporting related researches and studies that reveal the impact resulting from the occupation restrictions and obstacles.

6.4 Recommendation for Further Research

There are some areas that can be researched in the context of this study, which can enrich current finding. The following list pinpoints some of these areas:

- Splitting of this study into multiple researches, which are focused on specific activities of the NDS process, such as formulating service strategies, selecting new services, service design and engineering, and service delivery.
- New research to investigate and measure topics related to telecom service industry such as service quality, service satisfaction, service value, market trends, understanding customer need and managing customer relationship.
- New research to investigate characteristics of the telecom services, and how it can impact development of telecom industry.
- More research about obstacles made by the Israeli occupation towards the telecom industry in Palestine, and how it can impact service development and the overall economy in Palestinian.
- Specific research about trends in the telecom industry in Palestine during the next decade.
- Specific research about the competition and the challenge of the telecom of industry in Palestine. As well as discussing the role of Palestinian telecom regulators in managing the telecom market.

- Evaluation research of current modules of telecom service and regulation polices by the ministry of telecom, and how it impacts developing new service.

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Appendices

Appendix A: SERVQUAL Customer Service Quality Survey

Tangibles:

1 Excellent Telecom companies will have modern looking equipment.

2 The physical facilities at excellent telecom companies will be visually appealing.

3 Employees at excellent Telecom companies will be neat in their appearance.

4 Materials associated with the service (pamphlets or statements) will be visually appealing at an excellent telecom company.

Reliability:

5 When excellent telecom companies promise to do something by a certain time, they do.

6 When a customer has a problem, excellent telecom companies will show sincere interest in solving it

7 Excellent telecom companies will perform the service right the first time.

8 Excellent telecom companies will provide the service at the time they promise to do so.

9 Excellent telecom companies will insist on error free records.

Responsiveness:

10 Employees of excellent telecom companies will tell customers exactly when services will be performed.

11 Employees of excellent telecom companies will give prompt service to customers.

12 Employees of excellent telecom companies will always be willing to help customers.

13 Employees of excellent telecom companies will never be too busy to respond to customers' requests.

Assurance:

14 The behavior of employees in excellent telecom companies will instill confidence in customers

15 Customers of excellent telecom companies will feel safe in transactions.

16 Employees of excellent telecom companies will be consistently courteous with customers.

17 Employees of excellent telecom companies will have the knowledge to answer customers' questions.

Empathy:

18 Excellent telecom companies will give customers individual attention.

19 Excellent telecom companies will have operating hours convenient to all their customers.

20 Excellent telecom companies will have employees who give customers personal service.

21 Excellent telecom companies will have their customers' best interest at heart.

22 The employees of excellent telecom companies will understand the specific needs of their customers.

فهرس ب: استبيان الزبائن: قياس جودة الخدمات التي تقدمها شركات الاتصالات الفلسطينية حسب مقياس- SERVQUAL

الاستبان الكتروني تم تصميمه من خلال صفحة جوجل الالكترونية و نشره عبر صفحة معا الاخبارية.

مقدمة الاستبيان

بعد التحية،،

يرجى منكم المساعدة في تعبئة هذا الاستبيان كجزء من دراسة اكاديمية ضمن اطروحة ماجستير في جامعة النجاح الوطنية، ان تعاونكم في الاجابة على جميع الاسئلة يسهم في تطوير البحث العلمي في فلسطين، و موضع الشكر و التقدير.

للتوضيح الشركات المقصودة في الاستبيان هي جميع الشركات العاملة في فلسطين والتي تزود المشتركين بخدمات الاتصالات (الثابت اوالنقال) اوالانترنت، و يتكون الاستبيان من (22) سؤال رئيسي كل منها يقسم الى سؤاليين فرعيين: الاول ما تتوقعه من تلك الشركات والفرع الثاني ما تلمسه من تلك الشركات بشكل عام دون تحديد شركة معينه. علما بان مفتاح الاستبيان هو اختيار الرقم الذي ترونه مناسبا (1-7) بعد كل سؤال حيث يمثل الرقم (ا) انك تعارض بشدة ، الرقم (2) انك تعارض، الرقم (3) تعارض الى حد ما، الرقم (4) محايد، الرقم (5) موافق الى حد ما، الرقم (6) موافق، والرقم (7) موافق بشدة.

مع الشكر سلفا لمساعدتكم.

السؤال الاول (مجموع الاسئلة 22 سؤال)

الفرع الاول (ما تتوقعه): المعدات و الاجهزة المستخدمة في الشركات الممتازة يجب ان تكون من احدث التقنيات

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): المعدات و الاجهزة المستخدمة في تلك الشركات من احدث التقنيات

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الثاني (باقي عشرون سؤال)

الفرع الاول (ما تتوقعه): المرافق الملموسة في الشركات الممتازة يجب ان تكون جذابة و مبهرة للنظر

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): المرافق الملموسة في تلك الشركات جذابة و مبهرة للنظر

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الثالث (باقي تسعة عشر سؤال)

الفرع الاول (ما تتوقعه): لباس و مظهر الموظفين العاملين في الشركات الممتازة يجب ان يكون انيق و جذاب

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): لباس و مظهر الموظفين العاملين في تلك الشركات انيق و جذاب

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الرابع (باقي ثمانية عشر سؤال)

الفرع الاول (ما تتوقعه): المواد المساعدة للخدمات (كالنشرات و الدعايات) في الشركات الممتازة يجب ان تكون جميلة و جذابة

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): المواد المساعدة للخدمات (كالنشرات و الدعايات) في تلك الشركات جميلة و جذابة

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الخامس (باقي سبعة عشر سؤال)

الفرع الاول (ما تتوقعه): عندما تتعهد الشركات الممتازة بفعل شي ما ضمن وقت محدد، فانها تنجز ذلك ضمن الوقت المحدد.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): عندما تتعهد تلك الشركات بفعل شي ما ضمن وقت محدد، فاننا تنجزه ضمن الوقت المحدد

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال السادس (باقي ستة عشر سؤال)

الفرع الاول (ما تتوقعه): عندما يواجه المشتركون مشكلة، فان الشركات الممتازة تبدي رغبة صادقة لعلاج المشكلة.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): عندما يواجه المشتركون مشكلة، فان غالبية تلك الشركات تبدي رغبة صادقة لعلاج المشكلة.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال السابع (باقي خمسة عشر سؤال)

الفرع الاول (ما تتوقعه): الشركات الممتازة تنجز الخدمات بشكل صحيح منذ البداية

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): معظم تلك الشركات تنجز الخدمات بشكل صحيح منذ البداية.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الثامن (باقي اربعة عشر سؤال)

الفرع الاول (ما تتوقعه): الشركات الممتازة يجب ان تكون جاهزة لتزويد الخدمات حسب الموعد المحدد سلفا

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): تلك الشركات دائما جاهزة لتزويد الخدمات حسب الموعد المحدد سلفا.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال التاسع (باقي ثلاثة عشر سؤال)

الفرع الاول (ما تتوقعه): الشركات الممتازة تحافظ على سجل نقي من الاخطاء.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): تحافظ تلك الشركات على سجل نقي من الاخطاء

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال العاشر (باقي اثنى عشر سؤال)

الفرع الاول (ما تتوقعه): الموظفون في الشركات الممتازة يجب ان يعلموا الزبائن بالموعد الدقيق لانجاز و جاهزية الخدمات

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): الموظفون في تلك الشركات يعلموا الزبائن بالموعد الدقيق لانجاز و جاهزية الخدمات.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الحادي عشر (باقي احدى عشر سؤال)

الفرع الاول (ما تتوقعه): الموظفون في الشركات الممتازة يجب ان يقدموا خدمات سريعة للمشتركين

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): الموظفون في تلك الشركات يقدمون خدمات سريعة للمشتركين.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الثاني عشر (باقي عشرة اسئلة)

الفرع الاول (ما تتوقعه): الموظفون في الشركات الممتازة يجب ان تكون لديهم الرغبة في مساعدة المشتركين.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): الموظفون في تلك الشركات لديهم الرغبة في مساعدة المشتركين.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الثالث عشر (باقي تسعة اسئلة)

الفرع الاول (ما تتوقعه): الموظفون في الشركات الممتازة يجب ان يحافظوا على جاهزية مستمرة لتلبية طلبات المشتركين.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): الموظفون في تلك الشركات جاهزون دائما لتلبية طلبات المشتركين.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الرابع عشر (باقي ثمانية اسئلة)

الفرع الاول (ما تتوقعه): سلوك الموظفين في الشركات الممتازة يجب ان يعزز ثقة المشتركين اتجاه الشركة.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): سلوك الموظفين في تلك الشركات يعزز ثقة المشتركين اتجاه الشركة.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الخامس عشر (باقي سبعة اسئلة)

الفرع الاول (ما تتوقعه): الزبائن لدى الشركات الممتازة يجب ان يشعروا بالامان في معاملاتهم و طلباتهم.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): الزبائن لدى تلك الشركات يشعروا بالامان في معاملاتهم و طلباتهم.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال السادس عشر (باقي ستة اسئلة)

الفرع الاول (ما تتوقعه): الموظفون في الشركات الممتازة يجب ان يلتزموا التهذيب باستمرار اتجاه المشتركين.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): الموظفون في تلك الشركات يلتزموا التهذيب باستمرار اتجاه المشتركين.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال السابع عشر (باقي خمسة اسئلة)

البند الاول (ما تتوقعه): الموظفون في الشركات الممتازة يجب يمتلكوا المعرفة للاجابة على استفسارات المشتركين.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

البند الثاني (ما تلمسه): الموظفون في تلك الشركات يمتلكوا المعرفة للاجابة على استفسارات المشتركين.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الثامن عشر (باقي اربعة اسئلة)

الفرع الاول (ما تتوقعه): الشركات الممتازة يجب ان تمنح المشتركين فيها عناية فردية.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): تلك الشركات تمنح المشتركين فيها عناية فردية.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال التاسع عشر (باقي ثلاثة اسئلة)

الفرع الاول (ما تتوقعه): اوقات الدوام في الشركات الممتازة يجب ان تتلائم مع احتياجات مشتركيها

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): اوقات الدوام في تلك الشركات تتلائم مع احتياجات مشتركيها.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال العشرون (باقي سؤالين)

الفرع الاول (ما تتوقعه): الموظفون في الشركات الممتازة يجب ان يمنحوا المشتركين عناية خاصة.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه):الموظفون في تلك الشركات يمنحون المشتركين عناية خاصة

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الحادي والعشرون (باقي سؤال)

الفرع الاول (ما تتوقعه): الشركات الممتازة يجب ان تعتبر مصلحة المشتركين ضمن اولوياتها.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): تلك الشركات تعتبر مصلحة المشتركين ضمن اولوياتها.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

السؤال الثاني والعشرون (السؤال الاخير)

الفرع الاول (ما تتوقعه): الشركات الممتازة يجب ان تفهم احتياجيات المشتركين الفردية و المحددة.

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

الفرع الثاني (ما تلمسه): تلك الشركات تفهم احتياجات المشتركين الفردية و المحددة

	1	2	3	4	5	6	7	
أعارض بشدة	O	O	O	O	O	O	O	موافق بشدة

انتهت الأسئلة اشكركم على وقتكم

جامعة النجاح الوطنية

كلية الدراسات العليا

تطوير نظام خدمات يحافظ على ميزة تنافسية

دراسة على قطاع الاتصالات الفلسطيني

إعداد

أحمد يوسف يعقوب موسى

إشراف

د. أيهم جعرون

قدمت هذه الرسالة استكمالاً لمتطلبات الحصول على درجة الماجستير في الإدارة الهندسية بكلية الدراسات العليا في جامعة النجاح الوطنية في نابلس - فلسطين.

2013م

تطوير نظام خدمات يحافظ على ميزة تنافسية دراسة على قطاع الاتصالات الفلسطيني

إعداد

أحمد يوسف يعقوب موسى

إشراف

د. أيهم جعرون

الملخص

بناء على التوجه الملحوظ للاقتصاد العالمي خلال الفترة الاخيرة نحو سوق الخدمات بدلا من الاعتماد على المنتجات العينية، فإن هذه الدراسة تهدف إلى تحليل و تقييم الوضع الراهن لنظام الخدمات المتبع في سوق الإتصالات الفلسطيني، ومن ثم صياغة إطار عمل لتطوير الخدمات الجديدة بما يتلائم و قطاع الإتصالات الفلسطيني. تمحورت هذه الدراسة حول كيفية تعريف الخدمات الجديدة و تصميمها و تقديمها للجمهور.

تحتوي الدراسة على نهج بحثي مختلط، بدأ بإجراء مقابلات غير رسمية مع عاملين في قطاع الإتصالات الفلسطيني بهدف تحليل وتقييم الوضع الراهن هذا بالإضافة الى خبرة و متابعة الباحث للقطاع خلال الفترة السابقة. وبعد ذلك تم طرح إستبيان للجمهور بهدف تقييم جودة الخدمات التي تقدمها شركات الاتصالات الفلسطينية من وجهة نظر المشتركون اعتمادا على مقياس بارسورمان الشهير (SERVQUAL)، و أخيراً تم مقابلة عدداً محدد من الخبراء العاملين في قطاع الاتصالات الفلسطيني بهدف إثراء الدراسة و صولاً الى إطار عمل لتطوير الخدمات ملائم لقطاع الاتصالات الفلسطيني.

بعد تحليل البيانات بينت النتائج أن شركات الإتصالات الفلسطينية تعمد أنظمة معدة داخليا لتصميم الخدمات، لكن ما تزال تلك الانظمة غير ناضجة و يجري تعديلها وتحسينها بشكل متكرر. كما أظهرت نتائج الإستبانة وجود ثغرات سلبية بين ما يلمسه المشتركون من مستوى الخدمات المقدمة مقارنة مع ما هو متوقع منها، أي عدم رضا الجمهور عن جودة الخدمات التي

تقدمها شركات الإتصالات الفلسطينية. وفي نهاية الدراسة وبعد تحليل مختلف البيانات تمكن الباحث من صياغة إطار عمل لتطوير الخدمات الجديدة مناسب لقطاع الإتصالات الفلسطيني.