Development and Application of an Analytical Framework for the Measurement of Customer Service Quality in the Banking Industry of Cyprus

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Thesis submitted for the degree of
Doctor of Philosophy

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August 2011

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Acknowledgements

Firstly, I would like to acknowledge Dr. Antonis Theocharous, who has been the one who gave me the push to begin my endeavour towards a doctoral degree, helped me with the selection of the topic, and guided me through the preparation of a research proposal that would allow me to pursue my objective. I will be always grateful for his help and assistance.

My biggest thanks and appreciation goes to Ms. Adrienne Curry, my supervisor at the University of Stirling. Her guidance, from the beginning of this study, the constructive comments, valuable suggestions and needed corrections were always of great help. I know she spent a lot of time reading and re-reading this thesis to help me produce a sound and well-founded study. I am also grateful for the time she spent with me either face to face during our yearly meetings and the time spent on emails to discuss almost everything about this study. I really enjoyed working with her and I will be eternally grateful.

I must extend my thanks to a number of people who helped me in a number of different ways. The bank experts and quality specialists for their time and valuable information offered during the interviews, and a number of friends who were willing to offer their support and their suggestions to further improve this study, as well as for their comments, during the early stages, on the results of the data analysis section.

Finally, this study is dedicated to my parents, and especially my mother who used to say to me that "as long as there are schools out there, I will send my children to learn". Well, mom, you did that… Her never ending desire to learn was an on-going motivator, which I hope that one day I will be in a position to pass on to my children.

Abstract

The main objectives of this study are to demonstrate the significance of customer service quality in the banking sector of Cyprus in order to enable managers in banking organisations to identify the determinants of customer perceptions of service quality and ultimately to provide a method to measure the levels of service quality offered. Therefore, the objectives of this thesis are:

- To evaluate the SERVQUAL model and assess whether it can be applied in the context of the Cypriot banking industry, and consequently establish a reliable and valid service quality measurement instrument for Cypriot banks, and
- To identify the level of service from banks in Cyprus and detect ways to improve the service quality offered.

This study evaluates SERVQUAL dimensions, and more specifically the perceptions side of the instrument, and modifies it through an extensive and in-depth analysis of the literature review published on the topic of service quality and through interviews with bank experts and quality specialists so as to assess its applicability to the banking industry in Cyprus. As a result of this analysis, a modified version of the perceptions' side of SERVQUAL was constructed as a measurement scale of service quality in the banking sector of Cyprus.

Data were collected through customer surveys conducted outside bank branches. Subsequently, the collected data were analysed through tools such as factor analysis, multiple regression analysis, and internal consistency measurement. This analysis helped to prove the validity and reliability of the modified instrument used to measure service quality and revealed the dimensional structure of the service quality construct in the Cypriot banking sector.

The major findings of this study suggest a four-dimensional construct derived from 23 items in the questionnaire. These dimensions are employee proficiency, convenience, professionalism and assurance. All four factors are positive and significant predictors of service quality. This result is different from the SERVQUAL and the SERVPERF models as both indicate five dimensions composed of 22 items. The reliability and validity of the scale(s) in this study were fully supported.

These results lead to several implications for both researchers and practitioners. For theorists, the results of this study can be used as foundations for further studies, for questionnaire scale development, to further support the use of a single scale and to raise the issue of the non-existence of the 'tangibles' dimension, which is not fully discussed in the literature and should be tested in future studies as well.

For managers and practitioners this study offers much support for the importance of employees and for a continuous investment in service quality programmes. It also suggests incorporating service quality measurement into branch performance measurement. Finally, the results obtained in this study pose significant challenges to managers and support the idea that practitioners should have a comprehensive view of service quality in banking organizations to accurately measure customer perceptions of service quality.

CHAPTER 1: INTRODUCTION

1.1 Research Background

1.1.1 The Importance of the Service Industry

It has been stated many times that we should look at the qualitative aspects of an issue to comprehend and accurately evaluate its significance. However, in the case of services, the author believes that their importance in any country or market can be fully represented by quantitative measures alone.

The service industry accounts for a large percentage of an economy, especially in the economies of developed countries. In the major economic powers of the European Union, the contribution of services as a percentage of GDP rose between 1993 and 2009 (est.) in France from 72.8% to 78.9%, in Germany from 65.6% to 72%, in Italy from 65.2% to 72.9%, and in the United Kingdom from 66.9% to 75% (OECD, 2005, pp.12-30; CIA, 2009). The average contribution of services to GDP rose proportionately in the rest of the EU member-countries during the same period.

The same picture holds true for Cyprus. The contribution of services to the GDP was 76% for 2003, and rose to 77% in 2008. At the same time the primary and secondary economic sectors were shrinking. The primary sector was expected to decrease to 2,1% in 2008 from 4,3% in 2003 and the secondary sector was estimated to fall to 19% in 2008 from 19.7% in 2003. The financial intermediation sector is perhaps the most important sector of the services industry. It contributes around 9% to total GDP in Cyprus (Statistical Service of Cyprus, 2009, p.17). Other important services include tourism, accounting, consultancy, telecommunications, education, and medical. (Figure 1.1 below presents the percentage contribution of various sectors to the GDP of Cyprus in 2009)

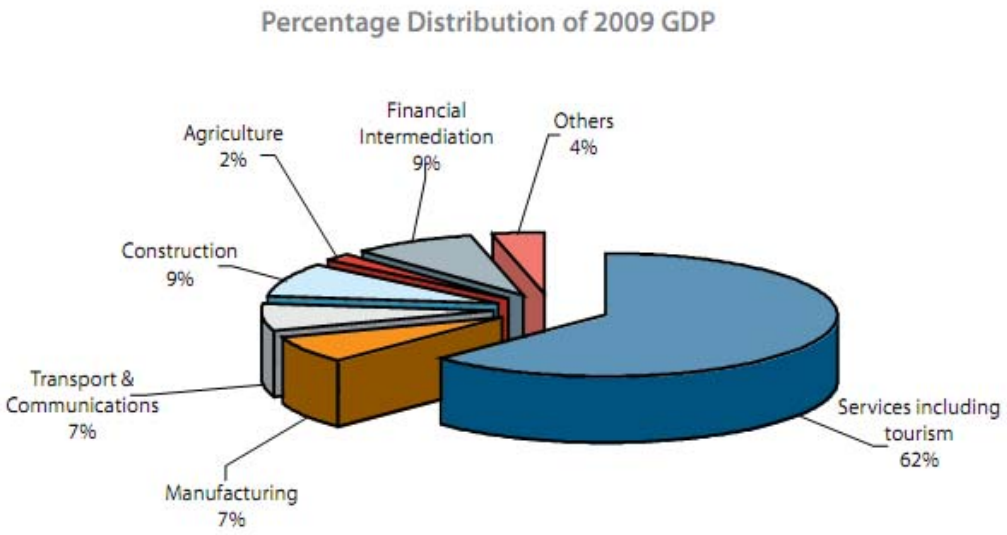


Figure 1.1: The percentage distribution of 2009 GDP

Source: ACB (2010, p.4)

These numbers provide a clear picture of the importance of services for a country's or an economy's overall potential. Since services are a significant part of the economy, it is important to examine the sector in more detail and come up with methods and strategies to help its growth and prosperity in the future. Several researchers, such as Gronroos,(2000) and Casey (2004) have either implied or supported the notion that, in the long run, fierce competition diminishes price differentiation and other characteristics that might differentiate one product or service from another. This especially as companies become more and more capable of producing high quality products or services while achieving economies of scale and minimizing their costs accordingly. Consequently, businesses are attempting to differentiate their products and services by offering higher value to customers, such as providing a total service offering, creating a strong brand image in the minds of customers, developing brand differentiation, building brand relationships with customers, choosing convenient locations and providing reliable information. McDougall and Levesque (1994, p.15) suggested that service quality dimensions relating to the process (how is the service delivered) and outcome (what is delivered) could also be used as the basis for differentiation.. Moreover, Zeithaml and Bitner, (2003), suggest that the

design of a firm's physical environment can be used as a differentiator in terms of pricing, such as larger seats in the first or business classes on an airplane.

Since this study concentrates on services, and especially the banking industry, the researcher has refrained from explaining the case of products, even though banks do offer products. These products are part of the whole service experience offered by banks; however they do not contribute to the development of a measurement model of services in the banking sector and therefore are not analyzed separately. It would be interesting, however,, for future research to analyze products offered by banks and whether these influence the mind of consumers as to their perceived level of service. In services generally and in banking in particular, competition and specialization have placed businesses in a position to produce similar services that share, more or less, the same characteristics and cost structure. If this is the case, then how can banks compete with each other? How can they differentiate their services in order to attract more customers? As will be shown in this study, one of the differentiators that can be used to accommodate this goal is service quality. To achieve this goal, practitioners need to develop and implement tools that will accurately measure service quality in the banking industry of Cyprus.

Given the value of services to world economies, effective service operations should enhance the whole experience a firm offers its customers, thereby providing several benefits for the organization. Firstly, offering a high level of service helps a company in its efforts to attract new customers but also it helps the firm to retain existing customers (Zeithaml and Bitner, 2003, p.158). This is crucial since it demands much more effort and resources to attract new customers than to keep current ones (Zeithaml and Bitner, 2003, p.161 and p.515). Secondly, effective service helps improve the image and reputation of the business in customers' minds (Gronroos, 2000, pp.294-5). Thirdly, it drives costs down, since providing the service right the first time saves time and money (Zeithaml and Bitner, 2003, p.161 and p.515). Fourthly, it creates positive word-of-mouth among customers which increases sales volume

(Zeithaml and Bitner, 2003, p.162 and p.515). All of the above allow the company to charge a higher price for its services; higher prices and lower costs result in higher margins, which in turn results in higher profits (Zeithaml and Bitner, 2003, p.161 and p.515).

1.1.2 The Objectives and Value of the Study

Even though banks in Cyprus understand and appreciate the value of service quality, they do not rely on any of the measurement tools discussed in the literature to assess and improve their service quality levels. To the authors knowledge they seem to use more data collected by customer surveys conducted either by mail or by outside research firms. However, they also use other methods, such as suggestion boxes, customer complaints, in-house surveys conducted by their own marketing departments and techniques such as the 'secret shopper'.

The lack of specialized instruments dedicated to the measurement of service quality in a consistent manner, exhibits a deficiency on the banks' part in their endeavour to measure service quality levels. Therefore, the aim of this study is to fill this gap by developing and introducing such a model that will offer managers the possibility to understand how customers perceive the service they receive from their banking institution.

Furthermore, a study on how to measure service quality, especially in the banking sector of Cyprus, will not only be extremely useful to fill the gap discussed above, it will also advance knowledge of the problem among researchers and perhaps, more importantly, it will create a debate in managerial practices of local banks on the issue of customer service quality subsequent to the identification and assessment of the factors that may affect service quality for local customers. Finally, the study will be valuable to stakeholder groups involved in the banking sector of Cyprus.

This study aims to demonstrate the significance of customer service quality in the banking sector of Cyprus by conducting service quality surveys that will enable banking organisations to identify the determinants of customer satisfaction and will provide a method to measure the levels of service quality offered. The objectives of this thesis are therefore to evaluate the SERVQUAL model and assess whether it can be applied in the context of the Cypriot banking industry. Consequently to establish a reliable and valid service quality measurement instrument for banks in Cyprus. Finally, to identify the level of service received from banks in Cyprus and detect ways to improve the service quality offered.

There are several problems with the dimensionality of SERVQUAL, therefore, the evaluation of the model in the context of the banking industry in Cyprus is set as the first objective of this study. Rather than merely accepting generic service quality dimensions, this study aims to suggest a model that will allow banks to determine and maintain the important dimensions that actually affect their service quality levels. Additionally, it is important to try to ensure the reliability and validity of the instrument for the industry under consideration. The value of this thesis is thus twofold:

a. Theoretical Value:

- To show that the dominant service quality model is not fully applicable in the Cypriot banking industry, mainly by identifying that current models developed previously in other countries in different markets and contexts cannot be fully applied to the Cypriot banking sector.
- To provide a theoretical framework to measure service quality in the context of the Cypriot banking industry, which may be generalisable to banking as a whole.
- To show the importance of service quality to banking organisations and how any improvements will have a positive effect.

b. Practical Value:

- To define the dimensions that make up the service quality construct used to measure service quality levels in the Cypriot banking industry and underpin the importance of service quality to management in order to help realise areas for improvement.

- To establish a reliable and statistically valid service quality instrument to be used in the Cyprus banking sector.

1.1.3 Measurement of Service Quality

The primary and probably most important step for quality improvement is to establish quality standards. From a managerial point of view, control is an extremely important function and without predefined standards there is no control (Jones and George, 2003). Therefore, in order to be in a position to improve, an organization, and in this case, banks need information indicating where to improve. This important information is derived from the measurement of service quality levels, which is critical since service quality has been linked to higher levels of customer satisfaction, store loyalty and profitability (Sivadas and Baker-Prewitt, 2000; Jamal and Naser, 2002).

The most widely used instrument has tended to be SERVQUAL, a model developed by Parasuraman, Zeithaml and Berry, in 1985, which measures service quality by comparing customers' perceptions and expectations of a service (Asubonteng et al., 1996; Brown et al., 1993). However, it was found that in the majority of replication studies there were problems with the actual use of the instrument. Cronin and Taylor (1992), suggested that a performance-based measure of service quality might offer an improved means of measurement, whilst Babakus and Boller (1992) believed that the use of gap scores did not provide any additional contribution. Gronroos, (1990) and Buttle, (1996) supported the contention that SERVQUAL focuses more on the process of service delivery and less (if at all) on the outcomes of the service encounter. Babakus and Boller (1992), Carman (1990), Cronin and Taylor (1992), Buttle (1996) and others identified problems with the number of service quality dimensions and suggested that it was not worth pursuing the development of a standard measurement instrument. These and other problems are discussed in depth in sections 3.3.2.3.1 and 3.3.2.3.2 of this thesis. It seems that the design of a standardized service quality measurement instrument is unlikely to prove practicable and the widespread use of SERVQUAL without modifications might be problematic.

1.2 Research Questions and Study Hypotheses

The research questions of the study are as follows:

- What are the dimensions of customer service quality when examined in the context of the Cypriot banking industry?
- How reliable and valid is SERVQUAL in measuring customer service quality in the context of the banking industry in Cyprus?

In order to answer the above mentioned research questions, two hypotheses were developed. H_1 will examine the dimensional structure of service quality and H_2 will investigate the reliability of SERVQUAL as used for this study.

These hypotheses are listed below:

- **Hypothesis H_1**: The dimensional structure of service quality that will be identified in the context of the banking industry in Cyprus will not match the dimensional structure found in the original SERVQUAL model.
- **Hypothesis H_2**: The reliability of the measurement instrument and the reliability of each dimension of the construct will meet the appropriate levels of statistical significance and will effectively capture the determinants of customer service quality in the Cypriot banking industry.

1.3 Research Methodology

The methods applied to test the study hypotheses were divided into the following stages:

- Examination of the relevant literature concerning the measurement of service quality using the SERVQUAL instrument.
- Personal interviews of an informal nature with experts in banking organizations to determine the tools used in the local banking industry to measure service quality. The individuals participating in this in-depth investigation provided additional information that helped in defining the problem and in determining with greater accuracy the factors that influence the dimensions of service quality.

- An empirical survey was performed to try to capture and measure the attitudes and perceptions of bank customers regarding the service quality levels offered by banks. The survey was conducted through the use of a structured questionnaire that included multiple choice questions, rating questions and some open-ended questions to give the opportunity to bank customers to express freely their opinions on the study subject. The questionnaire was formulated according to SERVQUAL items but the researcher believed that the perceptions section (SERVPERF) of the instrument would produce more valid and reliable results than the original tool as developed by Parasuraman et al., (1985).

Before administering the final version of the questionnaire to the public, pilot testing was conducted to determine the best possible set of questions to achieve the research objectives. The questionnaire was written and administered in Greek, which is the native language in Cyprus and is therefore spoken and understood by the vast majority of the population. A systematic sampling procedure was used in order to ensure a representative sample of people from the population were selected and interviewed.

- Factor analysis was used to identify the underlying structure of service quality in the Cypriot banking industry. Since the major purpose of this method was to reduce the data set into a smaller number of meaningful factors, the factor analysis technique was the most appropriate to use. Multiple regression analysis was also employed to understand the contribution of each of the factors identified in the factor analysis as perceived by bank customers. To achieve these tasks SPSS and other statistical software programs were employed.

1.4 Organization of the Thesis

This study is divided into seven chapters, as outlined below:

a) In Chapter 1, the author introduces the topic of service quality and discusses how it relates to the particular topic examined in this study. The basic aim of this chapter is to provide a general description of the main topic of this study and to prepare the reader for what will follow.

b) In Chapter 2, the Cyprus context is introduced, providing information on the economy and the banking sector specifically. The purpose of the chapter is to introduce the reader to the country of Cyprus and the local economic and banking context so as to enable the reader to contextualise the study as a whole.

c) In Chapter 3, the literature review is discussed, presenting the theoretical background on service quality and, where appropriate, the critical evaluation of the author. The objective of this section is to set the theoretical framework for this study.

d) In Chapter 4, the objective is to discuss the methodology followed in this study. The process and methods used, how the survey instrument was developed, and the detailed procedure for data collection and analysis.

e) The analysis of the data collected during the survey that will provide the necessary information to answer the research problems and present the study findings is the aim of Chapter 5.

f) The objective of Chapter 6 is to interpret the findings of the study and discuss their relationships to the hypotheses. Study implications are also presented and discussed in this chapter.

g) Finally, the conclusions and possible limitations of this study along with the recommendations and future research directions are discussed in Chapter 7.

1.5 Summary

This chapter has presented the objectives of the study, and introduced the research problems and hypotheses. The methodology briefly discussed and an outline of the study was presented. The author will present in Chapter 2 several characteristics of the Cyprus context which, in the author's opinion, will be useful to introduce the reader to important characteristics relating to Cyprus, its population, economy, and banking structure and system.

CHAPTER 2: THE CYPRUS CONTEXT

2.1 Introduction

Since this thesis intends to examine the banking industry of Cyprus the author considers appropriate to provide some basic information on Cyprus to help the reader understand both the country and the context of the local banking industry. This chapter is divided into three sections. In the first, the author presents a brief history of Cyprus, in the second the local economy and in the final section the local banking industry and its importance for the country.

2.2 Characteristics of Cyprus

Cyprus is located in the eastern Mediterranean sea and is the third largest island of the Mediterranean. Closest countries in distance are Turkey, Syria, Egypt and Greece. According to the Statistical Service (2011, p.12) the population of Cyprus at the end of 2009 was 892.400 of which 672.800 (or 75,4% of the population) come from the Greek-Cypriot community, 89.200 (or 10% of the population) come from the Turkish-Cypriot community and 130.400 (or 14,6% of the population) are foreign residents. The population in the areas controlled by the Republic of Cyprus is 803.200.

The capital city of the island is Nicosia in which the majority of inhabitants live. The second largest city is Limassol, followed by Larnaca, Paphos and part of Ammochostos (Famagusta). The other part of Ammochostos, as well as part of Nicosia and the towns of Kyrenia and Morphou have been occupied by Turkish troops since the military invasion by Turkey in 1974. The territory under Turkish occupation is estimated at 36,2%. At that time, the Greek-Cypriot population (around 200.000 people) in these towns was forced to leave their homes and properties and relocate to the government-controlled areas. The country was divided in 1974 by Turkey, which launched a military invasion in July of that year. Since then, there has been no contact between the occupied territories in the North and the Republic of Cyprus in the South. Nevertheless, the so-called “borders” were somewhat relaxed in April 2003 and

since then some form of contact has started among the people of the two communities in Cyprus. The language of the Greek-Cypriot community is Greek, although the English language is widely used, especially in commerce. The language of the Turkish-Cypriot community is Turkish (PIO, 2008).

The Republic of Cyprus was formed as an independent country on the basis of London-Zurich agreements on 16 August 1960, with a presidential system of government. The executive power lies with the President of the Republic who is elected directly by the people for a five-year term. The legislative power is exercised by the House of Representatives. The members of the House are also elected for a five-year term. Under the 1960 constitution, the judiciary is a separate power, independent of the other two and it is based on a two-tier system; the Supreme Court and the First Instance Courts.

Soon after its independence, Cyprus became a member of the United Nations, the Council of Europe, the Commonwealth and the Non-Aligned Movement. On May 1, 2004 the Republic of Cyprus became a full member of the European Union and on January 1, 2008, it joined the Eurosystem and introduced the euro as its official currency, thereby replacing the Cyprus pound.

2.3 The Cyprus Economy

Cyprus enjoys a small, but fairly flexible and robust economy characterized by satisfactory GDP growth rates, a per capita GDP in 2008 of €21.800 (€24.400 expressed in PPS terms - Purchasing Power Standard), reaching 97% of the EU27 average, according to Eurostat (News Release, 28/2011) and a fairly low unemployment rate (5,3% in 2009) that compares favourably with the EU27 average (8,9% in 2009) (European Union, 2010).

The basic characteristics of the Cypriot economy, as presented by the Press and Information Office of the Republic of Cyprus, (PIO, 2008), are outlined below:

- The private sector plays a major role in the economy and production, while the role of government is more of a supportive nature.

- The small domestic markets constitute an adverse factor to obtaining economies of scale.
- Most of the population (around 70%) live in urban areas while the remainder reside in rural areas.
- Small businesses ("micro enterprises"), that is, those employing less than 10 persons, amount to around 95% of the total number of businesses in Cyprus.
- The open economy in terms of total imports and exports of goods and services accounted for 99% of GDP in 2004.
- Services accounted for around 77% of GDP in 2008.
- The tourism industry has decreased in importance in the economy since the period between 1990-2001 when it contributed 15-20% to GDP, whereas over the last few years its contribution has diminished to levels lower than 15%.

According to the ACB, Cyprus is considered an appealing international financial centre as it offers the following advantages (ACB, 2010, p. 4):

- ✓ Cyprus offers the lowest tax rate in the EU and has a number of advantageous double tax treaties
- ✓ Cyprus's legal system is based on its British counterpart and UK court decisions are often used as precedent
- ✓ The labour force is highly skilled and multilingual
- ✓ The island is strategically located and has an excellent climate and a high standard of living
- ✓ International Financial Reporting Standards have been used for over three decades
- ✓ There is a strong banking infrastructure.

2.4 The Banking Industry in Cyprus

Cyprus enjoys a well-developed banking system that offers an extensive range of services to accommodate the needs of both individual and corporate customers. As discussed in PIO (2008), the strengthening of competition, mainly caused by the accession of Cyprus to the EU and the opening of markets, has compelled banks to expand their operations and cut costs. Therefore, beyond purely banking activities, banks, among others, offer insurance, leasing, mutual fund management, investment and consulting and asset management services. Moreover, improvements in technology have allowed banks to develop alternative distribution channels, such as call centres, internet, phone and mobile phone banking. Additionally, they have developed an extensive network of Automated Teller Machines (ATMs), mainly located outside bank branches, which are predominantly used for cash withdrawals even though they offer several possibilities for services such as deposits, transfers, payments of utility bills and others.

An important reason for this trend is perhaps the importance of personal relationships that people like to form in their everyday lives and the lack of trust to technological advancements, although use of such distribution channels is increasing, especially among the younger members of society.

The number of bank branches, which in the period from 2003 to 2010 ranged between 440 to 465 branches, and the number of customers (in 2009 862) per branch (ACB, 2010, p. 10) compare favourably with the EU average that stood at 3,550 customers per branch. This leads the author to assert that if banks wished to do so, they could decrease the number of their branches. Evidently, they have not done so.. The author suggests that the inclination of banks to keep about the same number of branches is mainly due to the fact that they have realised the importance of bringing customers into their branches, not only to build relationships with them but also to find opportunities to strengthen these relationships, minimise the risk of customer losses to the competition, and to take advantage of any cross-selling opportunities that might arise. Thus, even though banks, mainly for cost savings reasons,

would prefer customers to use alternative distribution channels such as phone, internet banking and ATMs, on the other hand they also want their customers to come into the branch for the reasons explained before.

The local banking sector can be divided into two broad categories: (a) Commercial banks that are supervised by the Central Bank of Cyprus (CBC) that are either local commercial banks or subsidiaries and branches of foreign banks, and (b) Co-Operative Credit Institutions or Societies that are supervised by the Co-operative Credit Societies' Supervision and Development Authority. Since Cyprus joined the Eurozone on January 1, 2008, CBC, following the recommendations of the Basle Committee on Banking Supervision and the EU Directives on banking regulation, provides complete supervision of the banking system and is responsible for the country's financial stability. The great significance of the banking sector for the local economy is demonstrated by the fact that the total consolidated assets of banks in Cyprus reached 874.6% of GDP at the end of June 2009, (Central Bank of Cyprus, 2009, p.102).

According to the website of the Central Bank of Cyprus (Central Bank of Cyprus, 2011a) the banks operating in Cyprus during 2010 are listed in Table 2.1 below:

Table 2.1: Banks operating in Cyprus in 2010

A.	**BANKS INCORPORATED IN CYPRUS**
I.	**BANKS LISTED ON THE CYPRUS STOCK EXCHANGE**
1	Bank of Cyprus Public Company Ltd
2	Marfin Popular Bank Public Co Ltd
3	Hellenic Bank Public Company Limited
4	USB Bank Plc
II.	**SUBSIDIARIES OF FOREIGN BANKS**
1	Alpha Bank Cyprus Ltd
2	BNP Paribas Cyprus Ltd
3	Emporiki Bank – Cyprus Limited
4	National Bank of Greece (Cyprus) Ltd
5	Russian Commercial Bank (Cyprus) Ltd
6	Societe Generale Bank-Cyprus Limited
7	Piraeus Bank (Cyprus) Ltd
8	Eurobank EFG Cyprus Ltd
III.	**OTHER BANKS**
1	Co-operative Central Bank Ltd
2	The Cyprus Development Bank Public Company Limited
3	Housing Finance Corporation
B.	**BRANCHES OF FOREIGN BANKS**
I.	**BRANCHES OF BANKS OF EUROPEAN UNION COUNTRIES**
1	Barclays Bank PLC
2	Banque SBA SA
3	First Investment Bank Ltd
4	Joint Stock Company “Trasta Komercbanka”
5	National Bank of Greece S.A.
6	Central Cooperative Bank PLC
7	Banca Transilvania S.A.
8	Joint Stock Company Akciju Komercbanka "Baltikums"
9	AS LTB Bank
II.	**BRANCHES OF BANKS OF COUNTRIES OTHER THAN EUROPEAN UNION**
1	BankMed s.a.l.
2	Arab Jordan Investment Bank SA
3	BANQUE BEMO SAL
4	Bank of Beirut SAL
5	BBAC SAL
6	BLOM Bank SAL
7	Byblos Bank SAL
8	Credit Libanais SAL
9	FBME Bank Ltd
10	Open joint-stock company AvtoVAZbank
11	OJSC Promsvyazbank
12	Jordan Kuwait Bank PLC
13	Jordan Ahli Bank plc
14	Lebanon and Gulf Bank SAL
15	Lloyds TSB Offshore Limited
16	Privatbank Commercial Bank
17	IBL Bank sal
III.	**REPRESENTATIVE OFFICES**
1	Atlasmont Banka A.D.

The author also believes it to be pertinent l to list the market shares of the banks operating in Cyprus so the reader might gain a better picture of the local banking context. In Tables 2.2 and 2.3 below the market shares for each bank in terms of loans and deposits are presented.

Table 2.2: Market share in loans as at 31 December 2010

	Totals in Loans	Share
	€000	**%**
Bank of Cyprus Public Company Ltd	14.922.221	24,27%
Marfin Popular Bank Public Co Ltd	10.455.912	17,00%
Co-operative Central Bank Ltd & Co-Operative Credit Institutions	12.515.276	20,35%
Alpha Bank Cyprus Ltd	4.683.509	7,62%
Hellenic Bank Public Company Limited	4.417.152	7,18%
Eurobank EFG Cyprus Ltd	2.266.012	3,69%
National Bank of Greece (Cyprus) Ltd	1.252.171	2,04%
Housing Finance Corporation	1.242.089	2,02%
Piraeus Bank (Cyprus) Ltd	770.742	1,25%
Emporiki Bank – Cyprus Limited	619.497	1,01%
USB Bank Plc	386.733	0,63%
The Cyprus Development Bank Public Company Limited	320.172	0,52%
Societe Generale Cyprus Ltd	296.395	0,48%
National Bank of Greece S.A.	212.141	0,35%
Others	7.128.404	11,59%
TOTALS	**61.488.426**	**100,00%**

Source: Central Bank of Cyprus, (2011b)

Table 2.3: Market share in deposits as at 31 December 2010

	Totals in Deposits	Share
	€000	%
Bank of Cyprus Public Company Ltd	19.793.504	28,30%
Co-operative Central Bank Ltd & Co-Operative Credit Institutions	13.522.846	19,34%
Marfin Popular Bank Public Co Ltd	13.126.316	18,77%
Hellenic Bank Public Company Limited	6.140.911	8,78%
Alpha Bank Cyprus Ltd	3.543.530	5,07%
Eurobank EFG Cyprus Ltd	2.493.215	3,56%
National Bank of Greece (Cyprus) Ltd	1.092.604	1,56%
Piraeus Bank (Cyprus) Ltd	1.028.904	1,47%
Housing Finance Corporation	933.321	1,33%
USB Bank Plc	458.442	0,66%
Emporiki Bank – Cyprus Limited	368.729	0,53%
The Cyprus Development Bank Public Company Limited	325.460	0,47%
Societe Generale Cyprus Ltd	249.935	0,36%
Others	6.857.659	9,80%
TOTALS	**69.938.085**	**100,00%**

Source: Central Bank of Cyprus, (2011b)

Some explanation is needed here. The banks listed in Tables 2.2 and 2.3, are clearly not all the banks presented in Table 2.1. This is because Table 2.1 lists all banks operating in Cyprus including those that operate as International Banking Units and are not for the most part involved in full retail banking services for consumers. However, the banks listed in Tables 2.2 and 2.3 are those that have branches in Cyprus and offer in the main a full range of retail banking services; in most cases they offer banking services for corporate and/or international customers as well. Some of these banks (such as Eurobank EFG Cyprus Ltd, Societe Generale Cyprus Ltd, The Cyprus Development Bank Public Company Limited, and to a lesser degree National Bank of Greece (Cyprus) Ltd) offer mainly services for corporate rather than for retail customers. Since such data could not be obtained, one cannot be certain as to how much of their share is attributed to services for corporate customers and how much to

services for retail customers. Lastly, it is worthwhile noting that the 'Housing Finance Corporation' offers mainly loans for housing purposes and associated deposit schemes leading to such loans; as such, it cannot be considered as a bank offering full retail services to customers.

To complete the picture of retail banking services in Cyprus it is worth considering the number of branches operating in Cyprus and the number of Automated Teller Machines (ATMs). These numbers will help the reader to understand more clearly how questionnaires were gathered and from which bank branches and why questions regarding the use of ATMs were not included in the questionnaire. These will be discussed further in chapter 4.

According to the Association of Cyprus Banks (2010, p. 10), at the end of 2009, for the banks presented in Table 2.1 above, there were 495 bank branches and 432 Co-operative Credit bank branches. The branches and ATMs per bank (ACB, 2010, pp. 16-20) are listed in Table 2.4 below:

Table 2.4: Bank Branches and ATMs in Cyprus as at 31 December 2009

	Number of Branches	Number of ATMs
Bank of Cyprus Public Company Ltd	143	142
Marfin Popular Bank Public Co Ltd	115	129
Hellenic Bank Public Company Limited	72	79
Alpha Bank Cyprus Ltd	37	41
Eurobank EFG Cyprus Ltd	6	-
National Bank of Greece (Cyprus) Ltd	21	22
Piraeus Bank (Cyprus) Ltd	15	15
USB Bank Plc	19	19
Emporiki Bank – Cyprus Limited	12	12
The Cyprus Development Bank Public Company Limited	1	1
Societe Generale Cyprus Ltd	7	7
Others	15	-
TOTALS	**463**	**467**

Even though the current financial crisis has affected the major financial institutions around the globe, the effects on the Cyprus banking sector, up to the time this study was compiled, have been indirect and limited. In 2008, Cypriot banks, although to a lesser extent from 2007 onwards, have remained profitable, producing an average return on equity of 15.9%. Interest income was the primary source of revenue, at 69% of total revenue, and reductions in non-interest income have been mainly responsible for the overall reduction in profitability (Association of Cyprus Banks, 2009). However, the continued economic downturn will have an impact on the economy as a whole, the banking sector included. During this crisis, and in addition to the financial measures taken to maintain financial liquidity and adhere to stricter lending criteria, service quality becomes increasingly important for banks as it can serve as a differentiating factor, enabling them, primarily to maintain their customer base and if possible attract new customers. In a period where economic slowdown has forced interest rates downwards (in Cyprus they moved up) and pushed financial institutions to set stricter criteria for lending, thereby limiting competition on price criteria (eg. lower interest rates), banks have to compete in other areas such as marketing and service quality to gain a competitive advantage.

2.5 Summary

The main characteristics of Cyprus with respect to its history, politics and economy have been discussed in this chapter. The banking industry and several important indicators have also been presented, as have some characteristics with regard to the population.. Since this study will examine consumer evaluations of the services offered in the local banking industry, the author believes that this chapter was needed so as to present a complete picture of Cyprus to enable the reader to understand more clearly several of the issues that relate specifically to the local context. In the next chapter the existing knowledge in the literature, especially the theoretical framework surrounding service quality and its models, is discussed.

CHAPTER 3: LITERATURE REVIEW

3.1 Introduction

Several authors have described the importance of service quality for businesses during the last 25 years. Gronroos (1984, 1990, 1991, 2000, 2001), Parasuraman et al., (1985; 1991a; 1993; 1994b), Cronin and Taylor (1992), Johnston (1995), Babakus and Boller (1992), Teas (1994), and many more have described, analysed, developed measurement models and identified factors and dimensions, in their quest to understand the concept of service quality more fully, to stress its importance for the business world and to help practitioners around the world to provide high quality of service as a tool to gain a competitive advantage in their relevant market.

Service activities are necessary for the economy to function and to enhance the quality of business life consumers and businesses enjoy. Services are not peripheral activities, as once was thought, but rather, are an integral part of society and their role grows on a continuous basis. During the last 90 years a major evolution in society has resulted in the shift from manufacturing to services

This chapter is divided into four sections that cover the major topics discussed in the literature on service quality. It begins with a discussion of the service quality concept and its relevant definitions and proceeds to discuss the major schools of thought. The central idea of the chapter is dedicated to the dominant service quality model in the area, SERVQUAL. Criticisms of the model as to its development, applicability and employment in the banking sector are also discussed. The chapter closes by stating the major implications emerging from the application of the model and its importance, especially for field practitioners.

3.2 Service Quality Concept

The importance of services has risen along with the increasing contribution of the service sector to the Gross Domestic Product (GDP) of most developed countries. Chronologically, this can be placed during

the late 1970s and early 1980s. Initial researchers in the field, such as Parasuraman et al., (1985) supported the notion that the marketing of goods was not the same as that of services and as such they should be treated differently. The result was the development of another area of marketing, the marketing of services in which a central role is played by service quality.

Service quality has attracted a good deal of research and several authors have identified various benefits for businesses. These are summarized by Zeithaml et al., (1996, pp.31-46) and include the following:

- Higher retention of existing customers
- Increasing business from current customers
- Increased positive word-of-mouth communication
- A higher opportunity to charge premium prices
- Reduced cost of reworking activities since they are performed right the first time
- Improved employee morale and satisfaction resulting in lower employee turnover.

A positive effect on profitability can be logically implied since all of the above benefits lead to reduced cost of doing business or to increased revenues or both.

To illustrate more fully the concept of service quality the remainder of this chapter addresses the definitions of service, customer service, quality and service quality. The characteristics and classification of services are also examined.

3.2.1 Definition of Service

Many authors have offered definitions of service, quality and service quality. As Gronroos (2000, p.45) holds, "service is a complicated phenomenon", since it can mean different things to different people. For example, it can mean the service one receives at a bank or the annual service of one's car. The

definition provided by Gronroos in 1990, and modified later in 2000, (p.46) is probably the most complete. "A **service** is a process consisting of a series of more or less intangible activities that normally, but not necessarily always, take place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems". Ross (1995, pp.314-331) stated the following: "Services are not actions and behaviours in and of themselves, but the way customers perceive and interpret those actions". Ramaswamy (1996) described service as the exchanges that occur between a service provider and customer with the intention of yielding a result that would satisfy the customer. Zeithaml and Bitner, (1996, p.15; 2003, p.20) stated that services are "deeds, processes, and performances". As the authors explain, this definition comes from the characteristics of services, and especially intangibility since services are not tangible elements that can be touched, seen, or felt. In contrast, they are intangible in nature. All definitions of services conclude that the two main themes shared by all are the elements of intangibility and simultaneous consumption. Service characteristics are explained in more detail in the next section. Services should not be confused with customer service, which involves any service activity that adds value to the product. Zeithaml and Bitner, (2003, pp.20-21) explain that ***customer service*** is different from services because the former is the "service provided in support of a company's core products". Customer service exists in both service and manufacturing companies. Among others, it includes answering questions about the product or service, dealing with complaints, providing repairs and maintenance, and solving customer complaints.

Providing for excellent customer service is difficult since each person has a different definition of what excellent customer service is and what is expected when that person decides to use the services of a specific firm. In contrast, for manufacturing companies which produce goods, defining excellent quality and including that excellent quality in the final product is relatively easy in the sense that the production process can to a large extent be controlled. Therefore, the goods produced should be of the same quality and provided the company identifies what consumers need and expect, the final product should

satisfy customers by fulfilling their needs. Excellent customer service goes beyond the traditional concept of the service offering and should also embrace areas of the business that do not come into direct contact with the customer. Manufacturing, purchasing and quality control might never communicate directly with the end user of a company‘s products, yet they are very important in meeting the customer's needs. If the company delivers an expensive product that does not work and delivers it late, it affects the company’s customer service just as much as a rude salesperson. The whole enterprise needs to have a holistic approach to providing excellent customer service.

3.2.2 Features of Service

To explain the differences between products and services, a number of characteristics that describe the unique nature of services have been proposed. Services differ from goods in terms of production, consumption, and evaluation. Usually services and products are compared. Table 3.1 at the end of this section summarizes the major differences between services and physical products (adapted from Gronroos, 2000, p.47). The four characteristics of services are the following:

Intangibility- Services are intangible since they refer to experiences rather than physical objects, and as such they cannot be touched, seen, felt, smelled or listened to, as is the case for tangible products. Normally a service cannot be evaluated or judged before it happens since the intangibility characteristic makes it very difficult for consumers to conceptualise a complete picture, even mentally. For example, services supplied by health care providers conform to the definition stated above, even though some parts of the service, such as the equipment or the hospital, are tangible (Zeithaml and Bitner, 1996;2003).

Intangibility has several business implications, the most important of which are: (a) services cannot be inventoried, resulting in difficulties in forecasting demand fluctuations, (b) services cannot, in general, be patented, which allows competitors to copy them easily, (c) services cannot be simply communicated to customers, which makes it difficult for them to comprehend and evaluate them and finally (d) the per

unit cost of a service is very difficult to assess and hence the price-quality relationship is multifaceted (Zeithaml and Bitner, 2003). Ghobadian et al., (1994) pointed out that the consumer often looks for signs of quality, for example: word of mouth, reputation, accessibility, and communication.

Perishability- In general, services are processes resulting from a series of activities and are not things (Gronroos, 2000). Thus, they cannot be stored, saved, resold or carried forward to a future time period. Obviously, you cannot save unfilled seats in a theatre to sell at the next show. The issue of perishability is primarily the concern of the service producer and, as such, the consumer becomes aware of the issue when there is insufficient supply and thus has to wait for the service. The inabilities to inventory, along with the realities of no return or resale, as is the case for tangible products, result in an increased need for demand forecasting, creative planning and recovery strategies if customers turn their business elsewhere, all of which are major challenges for businesses (Zeithaml and Bitner, 1996;2003).

Inseparability- Refers to the simultaneous production and/or delivery and consumption of services (Gronroos, 2000). In the case of goods, production precedes sale and sale comes before consumption. In contrast, most services are sold first and then produced and consumed at the same time (Zeithaml and Bitner, 1996). Additionally, often the customer is present at the time the service is produced and may well take part in the process (Zeithaml and Bitner, 2003). As the service takes place, during the service procedure, the customer evaluates the service performance. Simultaneously, the customer comes into contact with other customers and they may influence each other's experiences. Therefore, the employee should know beforehand what the customer expects and try to offer the best possible service by employing his/her best efforts, skills, knowledge and abilities to keep the customer satisfied.

The employee has to diagnose each case separately and correctly in order to offer the expected service. Moreover, the employee should be ready for any customer questions during the simultaneous process of service delivery and service consumption. The characteristic of inseparability does not allow

for mass production, so economies of scale are not possible. More importantly, customer involvement in the process may positively or negatively affect the outcome of the service, for that one and other customers,, which will result in lower satisfaction levels (Zeithaml and Bitner, 2003).

Heterogeneity- Refers to the potential for high variability in service delivery. This is a particular problem for services with high labour content, as the service is delivered by different people each day, hence, performance can vary from day to day. Moreover, the service is offered to different consumers who may have different demands of that same service, all of which contributes to the inconsistency that characterizes services. As Zeithaml and Bitner (1996, p.20) stated, "no two services will be precisely alike". The goal here is not to have high service variation; rather, the task is to standardize service delivery as much as possible. This is also what is expected from customers. Even though customers may have different perceptions about a service, almost all customers expect to receive the same standard of service. Additionally, Zeithaml and Bitner (2003) explained that heterogeneity is also a result of the fact that no two customers are alike, just as no two services are alike, since each customer will have different demands or different expectations of the service process and/or outcome. What is more, customers may experience the service in a different manner. The reality of variability does not guarantee an acceptable level of service quality through time, which, coupled with the fact that service managers cannot be sure that the level of services offered is in line with pre-planned standards, increases potential threats for businesses (Zeithaml and Bitner, 2003).

Table 3.1: Differences between services and physical goods

Physical Goods	Services
- Tangible	- Intangible
- Homogeneous	- Heterogeneous
- Production and distribution separated from consumption	- Production, distribution, and consumption are simultaneous processes
- A thing	- An activity or process
- Core value produced in factory	- Core value produced in buyer-seller interactions
- Customers do not (normally) participate in the production process	- Customers participate in production
- Can be kept in stock	- Cannot be kept in stock
- Transfer of ownership	- No transfer of ownership

Source: Gronroos, C. (2000, p. 47)

3.2.2.1 Classification of services

Besides service characteristics, which constitute a major part of the literature, services have been classified in many ways, the most important of which are the classifications presented by Gronroos, (2000).

(a) *High-touch / high-tech services*

High-touch services are characterized by the need for people and employees during the service process. In contrast, high-tech services, as the term suggests, rely mostly on the use of information technology and automated systems for service production. Such businesses include, for example, internet retailers and telecommunications' companies. It is important to note that, even though these services are largely high-tech, the high-touch or human factor becomes increasingly important when there are complaints, technology failures or when help is needed. In these cases, the service encounter, since service interaction until that time was non-existent and occurs only at a time of need,

will be extremely critical. Failure to satisfy customer expectations in these cases may result in negative outcomes with unforeseen possibilities for customer recovery.

(b) *Discretely / continuously rendered services*

When services follow a continuous flow of interactions between customer and service provider then there is a good opportunity to develop valuable relationships. Such services include banking, cleaning, security and others. Firms offering discrete services include hair-stylists, restaurants, hotels, repair firms and others. These types of service firm do not have the same opportunity to create valued relationships as the continuous flow services; even though they are profitable as business entities, relationships with customers are more difficult to create and retain. On the other hand, firms offering continuously rendered services rely on repetitive transactions and cannot afford to lose customers since the costs of attracting new customers are relatively higher.

In general, it is quite important to understand how services are classified because this constitutes a significant factor in deciding which business strategies to pursue. It may also be essential in the development of service quality measurement instruments in terms of the selection of the items / factors to be included in the instrument and to enable as much variation as possible to be explained.

Services can also be categorised in terms of *low/high level of employee involvement* and services with *low/high level of customization*. Since the element of heterogeneity is responsible for the high levels of variability of service process and delivery, it is logical to assume that a high or low level of employee involvement is an important parameter that should be considered when developing instruments to measure service quality.

An additional classification of services that needs to be addressed concerns the *consumption* of services and more specifically *process and outcome consumption*. The consumption of a service is

more about process consumption and less about outcome consumption (Gronross, 2000). A customer buying and using a tangible product forms a perception about the product's quality from the outcome of using that product. However, this is not the case with the consumption of services, since customers do not (and in some cases cannot because they lack the necessary knowledge, skills, and abilities) evaluate the outcome but rather form perceptions of the interactive process of service production and the service employee that delivers the service. The perceptions of the service production and delivery process are always of a critical nature in the minds of consumers. Naturally, the outcome of the service process should be satisfactory for the consumer and is a necessary ingredient for good quality. It is extremely important to note though, that especially for cases where the consumer cannot evaluate the outcome of the process, the process consumption of the service is of greater importance since it will play a central role when forming perceptions of service quality. The issue of process and outcome consumption is discussed more fully in section 3.4.2.

Another important characteristic of services, as Gronroos (2000) states, is *the case of the missing product*. As explained above, when consumers evaluate physical products, things are easier for both the firm and the consumer. The firm (see Figure 3.1 below) gives promises, enables promises and fulfils promises.

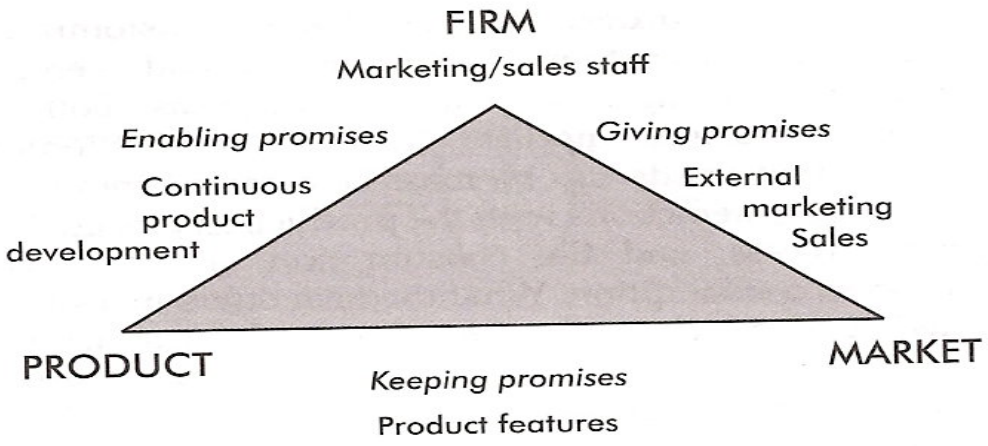


Figure 3.1: The product marketing triangle

Source: Gronroos, C., (2000, p.54)

As Gronroos (2000) explains, promises are given through marketing activities and sales, fulfilled through the product features included in the final product sold, and enabled by continuous product development from information gathered in the market research phase. Simply put, the company continuously gathers information from potential and existing customers about the product or the features they want in the product. If the company has the necessary technological capabilities and know-how to incorporate those features in the final product at a reasonable cost, this will allow the firm to maximize profits since customers will be satisfied as promises made to them were kept. The biggest difference between a product and a service is probably the fact that there is no tangible item – hence, the product is missing - that we can sense in any way and that can be objectively evaluated. This is also the major reason why over the years researchers have not been able to come up with a universal tool to measure service quality. The service marketing triangle exhibited in Figure 3.2 below shows the differences from the product marketing triangle.

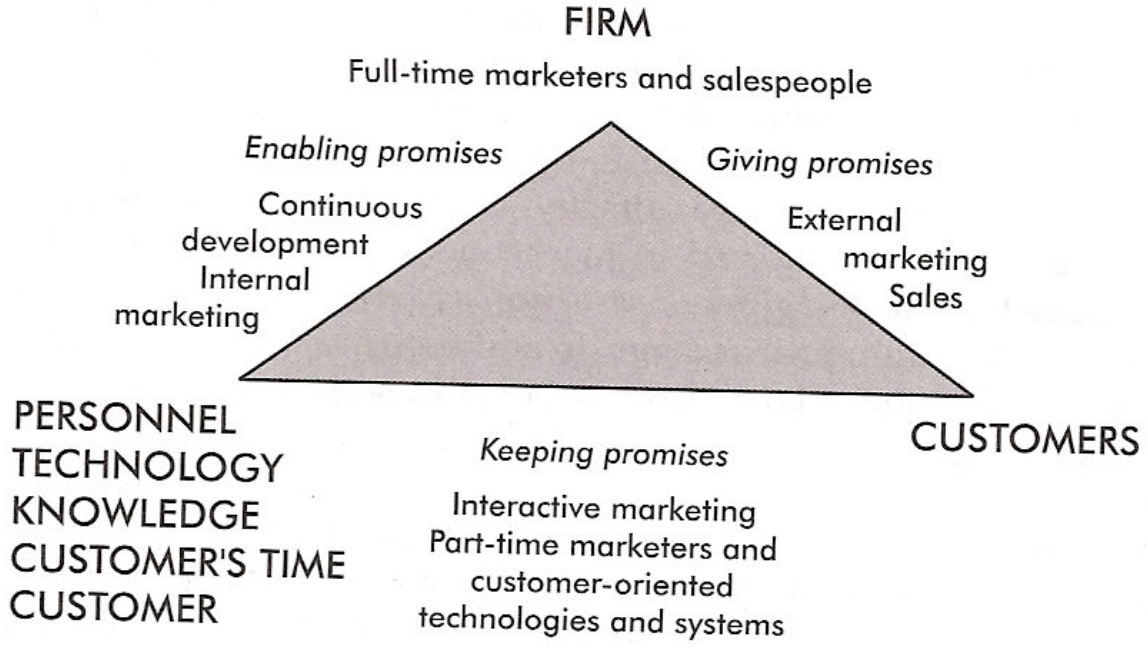


Figure 3.2: The service marketing triangle

Source: Gronroos, C., (2000, p.55)

Once more, promises are given, enabled and fulfilled. However, customer value is created through the successful mix of resources that are managed in a customer-oriented manner and not by the features included in a pre-produced product. The resources of the company are allocated in five major groups: personnel, technology, knowledge, customer's time and the customer. Yes, the customer is part of the firm's resources because, as explained before, the customer takes part in the service process and service delivery. Given the reliance on the human factor in services, companies cannot standardize the outcome of the process, as is the case for products, for a number of reasons relating to heterogeneity and variability. . Therefore, in managing the mix of resources used in the service marketing triangle, people play a central role in several different roles, such as in delivery, training, claims or complaints handling, maintenance, sales and others.

Perhaps the most important instant for service quality evaluation in the mind of customers happens during the interaction between the service provider's employee and the customer, otherwise known as the *service encounter*. During these interactions, as Gronroos (2000) explains, the provider's way of operating and handling of resources is of outmost importance since during these encounters the provider can reveal to customers the superiority of its services. Such situations are known as "moments of truth" and these are true moments that present opportunities for the service provider to persuade the customer about the level of service quality offered. If at that point something goes wrong and the level of service quality is not deemed satisfactory by the consumer, then that moment will be lost and it will take much effort and cost to create another moment of truth in order to bring that customer back. Of course the provider-customer relationship will pass through several moments of truth and one incident alone will most probably not drive the customer away, provided the specific occasion is not of great importance for the customer. Therefore, in order to minimize that possibility, companies must carefully plan and execute the process of interaction and pay particular importance to train service employees in how to handle such critical incidences as effectively as possible (Gronroos, 2000).

Moods and emotions are two additional variables that influence assessment of service quality levels in consumers' minds. *Emotions* such as anger, happiness, guilt, delight, depression, sadness and others have not been included in service quality models as they are extremely difficult to operationalize and measure, even though it is generally accepted that the existence of emotions influences customer perceptions of many things, service quality included. The same applies in general to *moods*, which are similar to emotions and, whether positive or negative, have an impact on service quality perceptions (Gronroos, 2000).

In conclusion customers tend not to base their judgement on only one incident but on a series of encounters depending on their importance level, which reveals an important discussion about how customers rate the importance of each dimension or factor that defines the service quality construct. It is logical to assume that one incident that is of some importance in the customer's mind will not play a major role in the decision to reuse the service. But what happens if that specific moment of truth is extremely important? If something goes wrong, then most probably the customer will not use that service again. For example, for an airline courier if customers' bags are lost through the fault of the airline's personnel, then most probably the customer will simply not use that airline again. The question then arises as to which of all the factors or dimensions of the service quality construct are the most important. Which can be forgiven or forgotten more easily and on which factors does the customer give a second or even a third moment of opportunity? The only way is to ask respondents directly to rate the importance of each factor in the instrument.

Having defined 'services' and their major characteristics, types and other attributes, the central term of this study now needs to be defined.

3.2.3 Definition of Service Quality

Services have been defined and described in the preceding sections. Before proceeding, the term 'quality' is explained and briefly discussed.

Gummesson (1998, p.5) stated that "There is need for 'holistic quality' embracing simultaneous consideration of services and goods quality dimensions." As early as in the 1920's quality was discussed in manufacturing industry research, but the real breakthrough in service quality did not emerge until the 1980's by a number of marketers (Gummesson, 1998). Quality is hard to define since it is a multidimensional concept and hence is extremely difficult to define in a few words. According to Parasuraman et al., (1985), there are only a few researchers that have tried to define and model quality because of the difficulties in delimiting and measuring the concept.

Quality has a number of dimensions and sometimes, more often than not, includes both product and service elements. As it needs to be defined from the customer's view, the importance of service encounters with customers is paramount. Some approaches to quality measurement lose sight of the fact that each consumer encounter is different, and each will be judged on its own merits. Shetty (1988) maintained that quality could advance profitability by reducing costs and improving a company's competitive position.

Service quality occurs during service delivery, usually in an interaction between the customer and contact personnel of the service firm. For this reason, service quality is highly dependent on the performance of employees, an organizational resource that cannot be controlled to the degree that components of tangible goods can be engineered (Parasuraman et al., 1988).

Garvin (1984, p.25) described five major approaches to define quality:

a) *Transcendent approach*: referring to good taste, professionalism and intuition, resulting in subjective and personal judgments of quality;

b) *Product based approach*: dealing with the components of a product. When the consumer compares two products he or she can compare the products' composition. It is an objective and technical point of view;

c) *The user-based approach*: quality lies with the customers since customers are the ones who finally decide which products and services have the highest quality;

d) *The manufacturing-based approach*: focuses on the producer's side and is mainly concerned with manufacturing practice, i.e. "conformance to requirements";

e) *Value based quality*: which stands for value with relation to price, that is, what the buyers get in return for the money they pay for the specific service.

However, most of these specifications are technical details that may or may not consider how well the product or service satisfies a customer's need. This problem led La Lopa (1999) to view quality as how much the product or service attributes satisfy a customer's need, subject to price and delivery limitations as set by the customer. Quality concerns include the firm's general know-how, technical abilities of employees, ability to generate effective technical solutions to problems, physical equipment, and the computer support system, among others.

Furthermore, Lehtinen and Lehtinen, (1991) explained quality based on two models, specifically a three-dimensional approach and a two-dimensional one. The three-dimensional approach examines physical quality, interactive quality and corporate quality. It deals with how the service is produced. On the other hand, the two-dimensional approach examines the process quality and the output quality of a service. It views quality from the customer's viewpoint. As such it is related to Gronroos' work.

According to Gronroos (2000, p.63), “the quality of a particular product or service is *whatever the customer perceives it to be*”. Is it possible for companies to define quality without taking into account what their customers believe about what constitutes good quality? The answer, clearly, is negative. It does not make any sense to define quality in any way, either using too specific or too broad terms, if customer views are not included in the definition. The outcome will be to spend too much money, time and other valuable resources with no effect on organizational performance. Gronroos (1984; 2000) suggested that services be evaluated based on their technical quality and functional quality. *Technical quality* refers to what the customer actually receives and *functional quality* refers to how the customer receives the service. These terms are examined in more detail in section 3.3.1.

Quality can be defined in many ways, depending on what is being defined and to which product or service it is related. Bitner et al., (1994, p.95) explained the importance of quality from the customer’s side: "the cost of not achieving flawless performance is the ‘cost of quality’, which includes the costs associated with redoing the service or compensating for poor service, lost customers, negative word of mouth and decreased employee morale.” Finally, according to Scott and Shieff (1993), quality can have at least two meanings. Firstly, it refers to the characteristics of the product or service being judged. Secondly, it determines the probability that the product or service will meet pre-established standards.

Early work on quality focused on the quality of products. This focus is more straightforward because, the production process is almost completely in the hands of the company and there is no contact with the customer during production, meaning that production and delivery are separate from the consumption phase and products are homogeneous. Over the past 20 years, with the growth of the service industries, theoretical perspectives on service quality have begun to develop. Service quality is fundamental in allowing a service organization to discriminate itself from its competitors as it becomes a central tool in the form of a valuable competitive advantage for any organization.

Booms and Bitner (1981) proposed an extended marketing mix for services that confirmed the centrality of the service encounter in the marketing of services. They proposed the addition to the established four P's of product, price, place and promotion of physical evidence, participant and process. This placed the service experience in a central position in relation to the effective marketing of services. Zeithaml and Bitner (2003) also emphasized the existence of additional factors that influence consumers' expectations and perceptions of the service experience and agree with Booms and Bitner (1981) on an expanded mix of services which would include people, physical evidence and process. *People* refer to all human participants that play a role in the service process and delivery and have an effect on customer service perceptions, namely customers and employees. The *physical evidence* includes the physical surroundings in which the service process, delivery and encounter take place, such as the building, the equipment, brochures, reports and others. The physical evidence and surroundings are referred to as the servicescape elsewhere in the literature. Finally, the flow of the actual activities involved, the number of steps needed and the degree of customer involvement in the service encounter outline the *process*.

Service quality is not easily defined. It is a subjective attribute and therefore people tend to talk about service quality as the difference between customer expectations and actual performance (Zeithaml et al., 1988, pp. 35-48) who noted it as having the following characteristics:

(a) Service quality is more difficult for the consumer to evaluate than goods quality,

(b) Service quality perceptions result from a comparison of consumer expectations with actual service performance.

(c) Quality evaluations are not made solely on the outcome of service; they also involve evaluations of the process of service delivery.

Overall, ***service quality*** can be defined as the extent of discrepancy between customers' expectations or desires and their perceptions (Parasuraman et al., 1985). Similarly, perceived service quality is a result of what the customer receives from the service company and how it is received (Gronroos, 1984). Parasuraman et al., (1985, p.47) argued that "the perceived service quality is the result of the consumer's comparison of expected service with perceived service". Service quality is associated with the likelihood of recommending a product or service and may help in creating differences between providers, thereby enabling price competition. Lewis and Booms (1983) cited in Webster (1989, p.36) define "*service quality*" as a measure of how well the service level delivered matches customer expectations on a consistent basis. Parasuraman et al., (1988, p.16) regarded service quality as "a global judgment, or attitude, relating to the superiority of the service," and many researchers in the service quality literature have concurred with this definition (Boulding, 1993; Bolton and Drew, 1991; Cronin and Taylor, 1992), while for Zeithaml and Bitner (1996, p.34) the term service quality means "the delivery of excellent or superior service".

Nowadays, companies are increasingly aware of the importance of service quality as a factor that can lead them to differentiate successfully and obtain a competitive advantage in the market (Parasuraman et al., 1985). Organisations determined to attain a unique position and advantage in the market most likely realise the importance of delivering high quality services by meeting or exceeding customers' expectations (Zeithaml et al., 1990). Several authors have also suggested that service quality can deliver repeat purchases and attract new customers. Repeat customers are valuable to any organization. It is logically assumed that service quality is directly linked to the success of a business. The rationale for this argument is that quality of service will create loyal and returning customers. This, in turn, will lower marketing costs, because customers become familiar with the organisation. Parasuraman et al., (1985, p.16) supported the notion that "service quality as perceived by consumers, stems from a comparison of what they feel service firms should offer (i.e. from their expectations) with their perceptions of the performance of firms providing the services".

One concludes that the preceding involves more than the result of the service, it also includes how the service was delivered. Higgins et al., (1991) suggested that companies receive several benefits such as added growth, enhanced customer retention and attraction of new customers as a consequence of delivery of superior service quality. Knowledge of service quality has been powerful in contributing significantly to the expansion of the general services marketing field. The reviews in Parasuraman et al., (1993) and Fisk et al., (1993) recognize the contributions made by various academics, both in service quality and in the general area of services marketing.

Bateson and Hoffman (1999) supported the notion that good service quality decreased costs and the need for excessive advertising. It would also result in higher productivity, allowing the firm to charge a higher price, thus resulting in higher profits. Poor service quality can increase costs, cause loss of sales, turn away old and new customers and create negative word-of-mouth (Parasuraman et al., 1985). Service quality, representing the long-term element of service satisfaction, is "a measure of how well a delivered service meets customer expectations"(Webster, 1991, p.6).

Having defined, explained and discussed the terms relative to the purpose of this study, the major models developed by renowned scholars are now discussed and the factors and dimensions that characterize and measure service quality identified.

3.3 Service Quality Models

It becomes evident from the literature that many researchers and respected authors have tried during the last 20-25 years to develop the quality concept for services. Central to this endeavour has been the determination of a service quality construct that could accurately identify the dimensions and factors that compose a service quality model or models and provide knowledge to practitioners and others on what are the elements that form customer expectations of service quality and how are these compared at the end to their service experience. The major schools of thought that have contributed the most to the

literature on the subject of service quality conceptualization and measurement are the Nordic School of Service Quality and its North American counterpart.

3.3.1 Nordic School of Service Quality

The Nordic School of services and service quality has provided a considerable contribution to international research into the broader area of service quality. Relevant research started in the 1970s in Northern Europe and the first findings were reported in the late 1970s and early 1980s. Several researchers such as Gummesson, Edvardsson, Gustavsson, and Lindqvist contributed to the development of the Nordic School of Services (Gronroos, 1991). Perhaps the most known researcher of this school of thought is Christian Gronroos.

Gronroos (1982) introduced the concept of the "perceived service quality model" and believed that it should replace the product features or characteristics of a physical product in the consumption of services. He identified two service quality dimensions, namely, the *technical* aspect of 'what' service is provided and the *functional* aspect of 'how' the service is provided. Through the technical dimension (or outcome quality of the process) of service quality customers perceive what they actually receive as the outcome of the process in which resources have been used. The 'what' is the outcome of the service encounter and is evaluated *after* performance. However, customers also, and often more importantly, perceive how they received the service, how the process itself functions to provide the required service, namely the functional or process dimension of service quality. 'How' the service was delivered is evaluated *during* the service delivery process. Gronroos (1982) also supported the proposition that customer perceptions of the process (i.e. the functional dimension) are frequently more important to satisfaction and overall quality perception than the technical quality of the outcome.

In some cases, the technical quality dimension is difficult to assess. Efforts to measure technical quality have generally involved the use of qualitative models. Some researchers have administered open-

ended surveys by asking people to fill in a questionnaire regarding the specific attributes they perceived regarding a service experience. Others have employed in-depth interviews in order to discover relevant determinants of technical quality. In general, one can conclude that there have been different studies employing different means and methods to measure technical quality. An example that exhibits the difficulty of measuring the technical outcome of service quality occurs when a patient, after receiving treatment from a hospital, attempts to evaluate the services provided or, even worse, when the patient tries to evaluate the immediate results from the specific treatment received. Most probably the patient does not have the required skills, knowledge and abilities to assess the technical outcome of this process and hence, it is very logical to rely on other measures of quality, which are associated to the service provided. Therefore, for health care services, customers would most likely rely on other attributes that have to do more with the service delivery process than with the outcome of the service experience.

According to Gronroos (1982), customers rate their expectations (a function of market communications, image, word of mouth, consumer needs, consumer learning and earlier experiences with the same firm or competitors) against their perceptions; customers often have continuous contacts with the same service firm, whereby their service perceptions are accumulated from each different service encounter. These perceptions/experiences are products of technical and functional quality, filtered through the image.

In effect, Gronroos introduced another quality dimension, besides the technical and functional dimensions, called *image*. The corporate image depends on technical and functional quality, price, external communications, physical location, appearance of the site, and the competence and behaviour of the service firm's employees. A favourable and well-known image is an asset for any firm because image has an impact on customer perceptions of the communications and operations of the firm. Having a positive image can be a major advantage for the firm. On the other hand, a negative image

can be damaging. Overall, image can be viewed as a mediating factor in the perception of service quality.

Gronroos (1982) also stated that the perceived service quality model would merely be a conceptual model to help researchers and practitioners understand the need-satisfying elements of a marketing model in a service context. It was developed to provide the services equivalent of product features and how to cope with them, much in the same way as the product-oriented marketing model.

The Perceived Service Quality model takes into consideration the three dimensions of outcome, process and image. However, the model mainly explains how customers perceive quality. It does not evaluate service performance or determine whether or not the customer is satisfied. It can be said that Gronroos' three dimensions are dimensions or constructs of quality but are not service quality dimensions. Gronroos, (2001, p.151) stated in retrospect "I should probably have used the terms technical and functional features of services instead of technical and functional quality dimensions of services". Gronroos's service quality model as described is presented below in Figure 3.3:

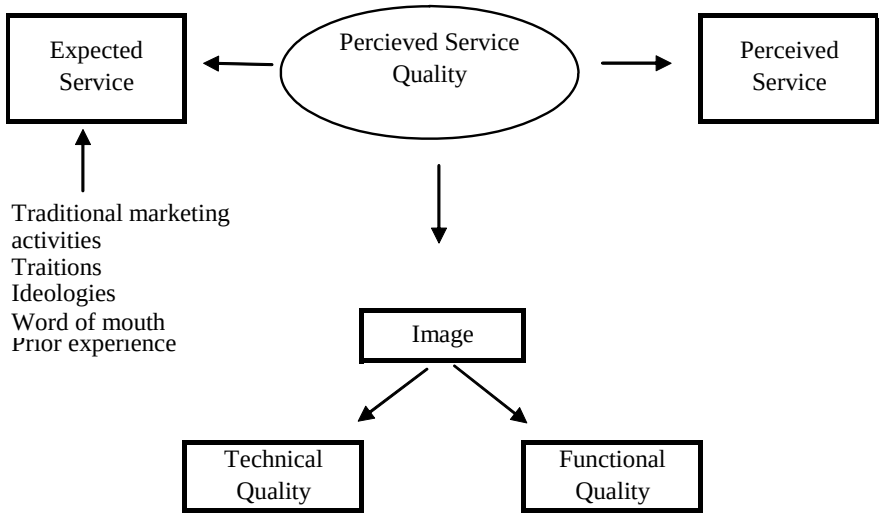


Figure 3.3: Gronroos's Service Quality Model

Source: Gronroos (1984, p.40)

3.3.2 North American School of Service Quality

The American perspective on service quality is primarily based on Parasuraman's, Zeithaml's, and Berry's work. Their original formulation (Parasuraman et al., 1985) identified ten components which were the result of a study that contained 97 items. The ten components of their original study included access, communication, competence, courtesy, credibility, reliability, responsiveness, security, tangibles and understanding or knowing the customer. The ten dimensions along with their definitions are presented in Appendix 1. Later on, Parasuraman et al., (1988) redefined their study and through the use of a 22-item scale they concluded that service quality consisted of five dimensions, namely reliability, responsiveness, assurance, empathy and tangibles. The five dimensions of SERVQUAL and their correspondence to the original ten dimensions of the instrument are presented in Appendix 2.

Their studies resulted in the creation of a measurement instrument, the SERVQUAL model, which in spite of the criticisms (discussed in section 3.3.2.3) it has received during the last two decades, still remains the most popular instrument to measure service quality and is widely accepted. The instrument was modified again in 1991(a), where Parasuraman et al., among others, changed the wording of the expectations questions and to a lesser degree the wording of the perceptions items. The instrument is based on the disconfirmation of expectations as it compares customers' expectations of how the service should have been performed with customer experiences (or perceptions) after using the service, or how the service was actually performed. Based on the difference between the two scores for perceptions (P) and expectations (E), an overall service quality score is calculated. P>E means that perceptions are higher than expectations, hence perceptions of service quality are higher, while P<E means that perceptions are less than expectations; hence perceived service quality is lower. P-E scores are also calculated for each of the dimensions that constitute the service quality construct. The five dimensions of the instrument as described by Parasuraman et al., (1988) are defined below. The conceptual model of service quality or GAP model that is described in the following pages is presented in Figure 3.4.

(a) **Reliability** refers to the ability of the service provider to perform a service, which is considered as dependable and accurate by the customer. According to Parasuraman et al., (1988), consumers perceive this dimension to be the most important of the five. Subsequently, failure to provide reliable service generally results in an unsuccessful firm. In broader terms, it means that the company will deliver on its promises, such as promises on service delivery, problems and complaints handling and resolution (Zeithaml and Bitner, 2003). This dimension is composed of the timely delivery of the service, the number of errors accepted, and the expectation of the customer that he/she will perceive the same quality of service every time.

(b) **Responsiveness** refers to the willingness of the company's employees to help customers and provide immediate service. It reflects the firm's commitment to provide its services in a timely manner and its awareness in providing the service. Factors influencing this dimension are related to the firm's attentiveness and promptness in dealing with customer requests, questions, complaints and problems. Specifically, customers evaluate the time needed to answer questions or give attention to problems (Zeithaml and Bitner, 2003).

(c) **Assurance** refers to the ability of the employees to convey trust and confidence to customers. The employees should have the requisite knowledge about the service they provide, should be courteous and show respect and, most importantly, they should exhibit an attitude of acting in the customers' best interests. This dimension is more important in services that, in customers' minds, entail higher levels of risk, such as banking, insurance, brokerage, medical and legal advice. Furthermore, the fact that customers might not be in a position to evaluate the outcome of the service encounter increases the level of risk (Zeithaml and Bitner, 2003).

(d) **Empathy** refers to the ability of employees to understand and care about their customers' specific needs, and to offer individualized attention. As explained by Zeithaml et al., (1990), the dimensions of assurance and empathy included items from the seven dimensions of the original ten, identified in Parasuraman et al., (1985). Specifically, the empathy dimension encompasses items from the access, communication and understanding dimensions, such as ease of contact, keeping customers involved and listening to their requests, and knowing your customers and their needs. According to Zeithaml and Bitner, (1996, p.122), "the essence of empathy is conveying, through personalized or customized service, that customers are unique and special". Employees should approach customers with sensitivity and be in a position to satisfy their needs. Customers should feel that they are unique and that they are important to the service providers they do business with (Zeithaml and Bitner, 2003).

(e) **Tangibles** refer to items such as the appearance of personnel, facilities, equipment used, technology, communication material, cleanliness, and other physical surroundings of the service provider. All of these help customers conceptualize or imagine the service they will receive. As these factors will also influence customers' expectations, they will be used as the standards against which to evaluate service quality perceptions (Zeithaml and Bitner, 2003).

The above mentioned five dimensions form the core of the SERVQUAL measurement instrument. These dimensions are measured using two sets of statements consisting of 22 items. The set of statements used to measure customers' perceptions is presented in Appendix 3. Researchers using the SERVQUAL instrument ask respondents to rate their expectations and perceptions of the performance of the service provider. The gap between the two scores, P-E (Performance-Expectations), helps to measure the service quality for each of the five dimensions and the mean score of all dimensions depicts the overall service quality score for the organization under study.

Positive scores suggest that the level of perceived service quality is satisfactory, whereas negative scores indicate unsatisfactory service quality. Zeithaml et al., (1990) claimed that a mismatch between expectations and perceptions of performance causes dissatisfaction or a performance gap. The two questionnaires mentioned above are actually used to measure the fifth gap which is the last gap of the SERVQUAL model. The outcome of the fifth gap is associated with or is the result of the preceding four gaps. The model identifies five gaps that result in unsuccessful service delivery. The fifth gap is of great importance as it is the one that represents the external relationship of the firm with its customers. The objective of any firm is to close the fifth gap, that is, to limit or eliminate differences between customer expectations and perceptions. To be in a position to close the fifth gap, firms need to close the other four gaps, known collectively as *the provider gaps* (Zeithaml and Bitner, 2003). Below, the five gaps are analysed in detail:

(a) **Gap 1:** *The Management Perception Gap – Not knowing what customers expect.*

The first gap is associated with the capability of the company's management to understand how their consumers formulate their expectations. Customer expectations are influenced by the marketing mix of the company, previous experiences with the firm or with their competitors in the same industry, consumers' personal needs, and word-of-mouth communication between peers, families, colleagues and others. Specifically, this gap checks the difference between customer expectations and the perceptions management has about customer expectations (Parasuraman et al., 1985) or, as Zeithaml and Bitner (2003) highlight, provider gap 1 exists because of the difference between customer expectations of the service and company/management understanding of those expectations.

Management focuses on what they believe their customers regard as high quality service, which may be completely opposite to what customers in reality think. Management might be unaware of specific service features that connote high quality to customers. Even if management is aware of such features, they may not know the level of performance that customers want in this respect. For example, if in a

five star hotel, the management decides that the provision of free copies of the Economist or other business journals is not appropriate at the bedroom door, while their business customers in reality perceive this attribute to add high quality to the service, there is a management perception-customer expectations mismatch between the two. The management of the specific hotel will not be aware of this gap, unless they conduct relevant research to identify the variance.

Zeithaml and Bitner (2003, p.533) identified the following four critical areas and associated factors that enlarge the distance between customer expectations and company perceptions of these expectations:

(i) Inadequate marketing research orientation

- Insufficient marketing research
- Research not focused on service quality
- Inadequate use of market research

(ii) Lack of upward communication

- Lack of interaction between management and customers
- Insufficient communication between contact employees and managers
- Too many layers between contact personnel and top management

(iii) Insufficient relationship focus

- Lack of market segmentation
- Focus on transactions rather than relationships
- Focus on new customers rather than relationship customers

(iv) Inadequate service recovery

Management can improve this ability by developing strategies, such as improving their marketing research, enabling better communication channels with their employees and reducing the levels of

management, all of which create distance between customers and top management (Zeithaml and Bitner, 2003, pp.533-4).

(b) **Gap 2:** *The Management Perception – Service Quality Specification Gap. Not selecting the right service design and standards*

It indicates the difference between management's perceptions of customer expectations and the quality specifications set for the service. The second gap is associated with management's inability to create the right structure, culture and strategy to fulfill customers' expectations (Parasuraman et al., 1985). This gap exists when management understands what their customers want, but are unable or unwilling to set appropriate standards to deliver the requested service. For example, the management of an airline courier may be aware of the expectations of its customers, however profits may be inadequate for its short-term viability or its financial resources insufficient.

The major factors contributing to Gap 2, as identified by Zeithaml and Bitner (2003, p.535) are:

(i) Poor service design

- Unsystematic new service development process
- Vague, undefined service designs
- Failure to connect service design to service positioning

(ii) Absence of customer-defined standards

- Lack of customer-defined service standards
- Absence of process management to focus on customer requirements
- Absence of formal processes for setting service quality goals

(iii) *Inappropriate physical evidence and servicescape* (the servicescape refers to the physical surroundings where the service process and service encounters take place).

The failure to formulate targets and design the right service delivery system to enable the company to achieve targets is the major reason for the existence of this gap. The company can eliminate this gap if it clearly sets goals and provides standardized service delivery tasks. Moreover, the training of staff regarding the quality standards, especially when those change rapidly, can work towards the minimization and/or elimination of this gap (Parasuraman et al., 1985). Development of effective strategies, customer-defined service standards and effective design of the physical surroundings in which the service is delivered may minimize this gap (Zeithaml and Bitner, 2003).

(c) **Gap 3:** *Service Quality Specifications-Service Delivery Gap – Not delivering to service standards.*

This indicates the difference between the service quality specifications and the actual service delivery (Parasuraman et al., 1985). If delivery of the service does not meet the specifications as set by management then the gap (also known as the performance gap) expands (Zeithaml et al., 1990). As an example, an employee of an understaffed restaurant has worked a double shift, is tired and in a bad mood. Obviously, when a customer asks for something, that customer will meet an uninterested, discontented, and perhaps impolite service provider. Therefore, the actual service delivery is negatively affected.

Zeithaml and Bitner (2003, p.536) maintain that, even though the right policies and guidelines exist for delivering high quality service, such performance cannot be guaranteed due to the following critical reasons:

(i) Deficiencies in human resource policies

- Ineffective recruitment
- Role ambiguity and role conflict
- Poor employee – technology job fit
- Inappropriate evaluation and compensation systems
- Lack of empowerment, perceived control, and teamwork

(ii) Failure to match supply and demand

- Failure to smooth peaks and valleys of demand
- Inappropriate customer mix
- Overreliance on price to smooth demand

(iii) Customers not fulfilling roles

- Customer ignorance of roles and responsibilities
- Customers negatively affecting each other

(iv) Problems with service intermediaries

- Channel conflict over objectives and performance
- Channel conflict over costs and rewards
- Difficulty controlling quality and consistency
- Tension between empowerment and control.

This gap is created due to insufficient training programs for personnel or their unwillingness to meet preset standards and is difficult to reduce because of the uniqueness of the service industry, the variation of the individual characteristics of each employee, the requirements of each customer that cannot be standardized, poor employee selection, the wrong job design, lack of teamwork, poor employee communication skills and others. The use of internal marketing programs and the management of human resources can minimise this gap. Service providers must develop strategies to deal with employees', customers' and intermediaries' roles, as well as demand and capacity in order to minimize this gap (Zeithaml and Bitner, 2003).

(d) **Gap 4:** *Service Delivery – External Communications Gap. Not matching performance to promises.*

This indicates the difference between service delivery and external communications. Undoubtedly, statements made by company representatives and advertisements affect consumer expectations. What

a service provider promises its customers through advertising and other promotional methods will affect customers' expectations and, if the promised service (as advertised or promoted) is not delivered, customers will perceive the service to be of poor quality (Zeithaml and Bitner, 2003). For example, if one customer was to travel to a specific destination and he/she perceives that the facilities of the hotel where he/she was staying were very different from what was presented in the photographs of the promotional brochure of that hotel or on the hotel's webpage. This would result in dissatisfaction since his/her expectations would not be fulfilled. Hence, he/she would evaluate the service quality as poor (Parasuraman et al., 1985).

Lack of communication and lack of understanding between those delivering the service and those marketing the service, exaggerated promises through advertising and when the contact personnel do not provide the right information to customers are among the reasons that inflate the fourth gap (Zeithaml and Bitner, 2003, p.538). Critical factors that expand this Gap are:

(i) Lack of integrated services marketing communications

- Tendency to view each external communication as independent
- Not including interactive marketing in communications plans
- Absence of a strong internal marketing program

(ii) Ineffective management of customer expectations

- Not managing customer expectations through all forms of communication
- Not adequately educating customers

(iii) Overpromising

- Overpromising in advertising
- Overpromising in personal selling
- Overpromising through physical evidence cues

(iv) Inadequate horizontal communications

- Insufficient communication between sales and operations

- Insufficient communication between advertising and operations
- Differences in policies and procedures across branches or units.

Coordination between departments, integration of services marketing communications and pricing strategies are some ways to minimise this gap (Zeithaml and Bitner, 2003).

(e) **Gap 5:** *Expected Service – Perceived Service Gap (The Customer Gap)*

This indicates the difference between expected service and perceived service quality. This gap is a function of the other four gaps. The gap model theory suggests that service providers must aim at closing this gap by closing the other four gaps that hold back high service quality delivery (Zeithaml and Bitner, 2003). Key determinants of the expected service include word-of-mouth communication, personal needs, past experiences with the company and its competitors, and external communications from the service provider (Zeithaml et al., 1990). According to Parasuraman et al., (1985), when the expected service (denoted by ES) is greater than the perceived service (denoted by PS), perceived service quality is less than satisfactory. When ES=PS, perceived service quality is satisfactory, while when PS>ES, perceived service quality is more than satisfactory.

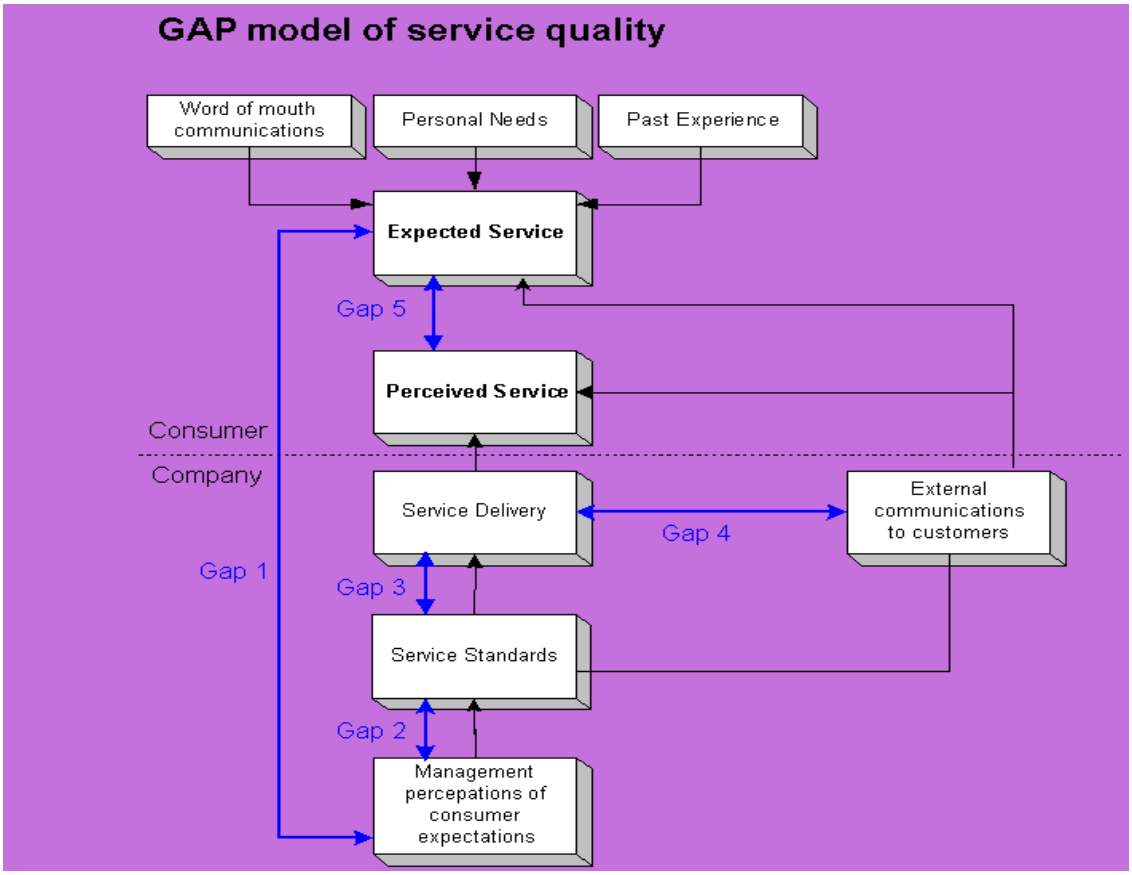


Figure 3.4: The Conceptual Model of Service Quality – GAP Model

Source : Zeithaml et al., (1990, p.46)

The SERVQUAL model can be used by a variety of service providers. It is more effective if companies perform this survey periodically. In general, the SERVQUAL instrument measures the quality of a company's services as perceived by its customers. The service quality model can help pinpoint causes of poor quality. These, in turn, can be used as a foundation for improving the quality of service, since delivering high service quality is seen as a prerequisite for success or even survival of service organizations (Zeithaml et al., 1988).

To understand SERVQUAL it is important to illuminate one of the two issues that have a central role in the disconfirmation theory and specifically in the instrument. Expectations, as explained, are of great

importance, however they generate much of the complexity in understanding and measuring service quality. Their features are explained and discussed in more detail below.

3.3.2.1 The Classification of Expectations

As explained earlier, customers assess service quality based on the disconfirmation model by comparing and contrasting perceptions and expectations. Since expectations have a central role in the SERVQUAL model it is quite important to examine them in more detail. Even though both concepts are somewhat difficult to comprehend, perceptions tend to be easier since they are formed during or after the service encounter and are composed of customer experiences collected or realized during that time period. If the disconfirmation model holds true, the problem or most of the difficulties arise with the concept of expectations. How customer expectations are formed and when, are valid questions that influence perceived service quality. It is important to note that expectations are not the same during all service encounters. Initial expectations are formed by some factors and at a later time they change since expectations of the second, third and following encounters are influenced by the same and also other factors. Therefore, practitioners should note these differences and consider them seriously in their attempts to manage and deal with customer expectations effectively.

Gronroos (2000, pp.90-2) described the three types of expectations that can be identified in the long-term and seem to be valid for all types of services. They are described below:

(i) *Fuzzy expectations* occur when customers expect a service provider to solve a problem but they do not know what should be done to correct the problem. When customers do not have clear and unambiguous expectations of what is needed to change the situation at hand, then their evaluations of service quality will be disappointing because they will expect something to be done to satisfy or to fill what they believe is missing and they will not understand why it is not happening.

Take for example the level of security offered by a bank branch for both employees and customers. The level of security can be categorized as a fuzzy expectation since there are always more things a bank can do. Where is the line drawn by a bank? Safes and cash dispensers with time-delay mechanisms, surveillance cameras that record any movement inside the branch (also known as CCTV), alarm buttons situated in several places so as to be accessible by as many employees as possible in emergency situations, security (bullet-proof) windows in front of the cashiers, double or revolving bullet-proof doors for entering and exiting the store and others are some of the protective measures taken by banks to protect their customers and personnel. However, the danger is still present. If a security problem occurs, customers will always wonder if banks should take additional measures. The answer will, most probably, always be positive. This is one of the situations where expectations will never be 100% satisfied because more can always be done. In such situations, bank managers should know that these expectations exist and they should try and bring them to light in the form of explicit expectations, so that a satisfactory service will be delivered. Practitioners should help customers define what is to be expected in situations like these, what is realistic and what is not, so that they will not be unhappy and frustrated if one of their expectations is not met.

Explicit expectations, therefore, are clear in customers' minds and can be divided into *realistic* and *unrealistic*. Customers anticipate that service providers will satisfy these expectations. The problem here lies with unrealistic expectations. Hence, the challenge to service providers is to help customers make their expectations realistic.. The service provider should be very careful as to what promises it makes, since if these promises are not met or if they are just 'vague' words in an advertising campaign in order to attract as many customers as possible, then they will result in unrealistic expectations which will not be met and will cause customer frustration and low levels of satisfaction.

To continue with the example mentioned above, the bank should explain, that whatever level of security measures it takes, it simply would not be always enough to guarantee 100% security. But they should

explain that the measures they take have as a primary goal to protect the lives of both customers and employees and that the orders given to employees in emergency situations such as robberies is to deliver the cash demanded by the robbers so as to not endanger any lives. They must also explain to them that, as they raise the security measures employed, from soft to hard ones, with the installation of bullet-proof windows and doors or the use of armed guards, the probability of more violence also increases since possible robbers can hold a customer hostage, placing an imminent threat to life in order to pass through the security measures with the same result. Hence, it is better to explain and help customers understand what to expect from each of their service encounters and their service experience with the bank as a whole to facilitate them in modifying their unrealistic expectations.

(ii) *Implicit expectations* refer to the most obvious expectations that customers take for a given that the service provider must fulfil. These expectations are not expressed because they are so obvious that, when not met, they cause dissatisfaction. Therefore, service providers should detect any implicit expectations and make sure that the service plan takes them into account so as to meet all customers' expectations. For example, a smiling teller saying: "Good morning sir, how may I help you today?" is clearly expected by all customers in all service settings and, because it is so common, management may neglect it. Further, if customers are asked to state what they expect from a service encounter, they may not list politeness, a smile and a welcome statement as a must since in their mind, nowadays, these are a given. However, if during the service encounter, a customer comes into contact with a grouchy and bad-tempered employee, he/she will most probably be dissatisfied.

As noted by Gronroos (2000), these expectations change in nature over time without any intervention from the service provider. Specifically fuzzy expectations become explicit ones and unrealistic ones become realistic as customers learn from both their service experience with a firm and the providers' efforts to help them clarify their fuzzy and unrealistic expectations. However, service providers should also consider the state of the competition, since another firm with better capabilities or innovations may

offer expectations deemed unrealistic by one firm. In such situations the customer may choose to take his business to the other provider who will satisfy his "unrealistic" expectations. Moreover, explicit expectations are adjusted to implicit through time as the relationship with the service provider grows and customers learn what to expect from the service encounter with that provider. So, while things remain constant and the customer receives what he expects, there is no problem.

Going back to the previous example of the smiling employee, the firm should consider what could have happened if that employee had been replaced by a grouchy and bad-tempered one and what would have been the effect of the new employee on the service encounter with customers. Clearly, the implicit expectation of a smiling employee becomes explicit again. In conclusion, service providers should bear in mind that expectations are dynamic in nature and as such they change over time, as the customer-provider relationship progresses and should always be in a position to deal with all the different types of expectations to plan service processes and encounters of an acceptable and satisfactory quality.

As explained earlier, expectations are the standards against which customers evaluate their perceptions. An expectation is not static in time or form, rather it is dynamic. Hence, practitioners need to have a lucid picture of what expectations are in order to understand them better and deal with them effectively. Zeithaml and Bitner (2003), elaborate on the idea of different levels of expectations by discussing major types of expectations; the desired service and the adequate service.

The *desired* service refers to the level of service the customer *wishes* to receive. It is a mixture of what the service 'can be' and what it 'should be'. If customers did not believe that a firm should deliver the service as expected, they most probably would not use the service. In reality, however, customers and people in general understand that the idea of receiving an ideal level of service is most of the time not possible because of several limitations that may exist. Thus, customers hope to receive an acceptable level of service, known as the *adequate* service, rather than a desired level. The standards of adequate

service are set much lower than those of desired service. In fact, these lower levels of acceptable service represent the minimum levels of expectations accepted by customers (Zeithaml and Bitner, 2003).

Expectations change not only from one time period to another but also for different service providers of the same industry. For example, do customers have the same expectations of all hotels? There are 3-star, 4-star, and 5-star hotels and now even 7-star hotels like the Burj-al-Arab in Dubai, UAE. Are desired service level expectations the same for all? Are adequate service level expectations the same for all? Expectations of either type should not be the same. It would be illogical for them to be the same. A customer desires a clean room, a good bed with clean sheets, a clean toilet and bathroom, perhaps a mini-bar, and a television with basic channels but no premium service from a 3-star hotel. In contrast, a customer of a 5-star hotel desires all of the above plus an excellent bed fitted with linen sheets, different aromatic soaps and body lotions in the bath, a television with several channels including premium channels, a fully loaded mini-bar, at least room access to the internet through either an ethernet card or Wi-Fi service and a 24-hour room service. Furthermore, the customer of a 7-star hotel like the Burj-al-Arab in Dubai, UAE, would be offered a butler, a chef to cook whatever the customer wishes, a personal trainer if the customer wishes to exercise while staying at the hotel, a helicopter ride from the airport to the hotel and back and many more services. All for a cost of $5,000 per night. Clearly desired service level expectations of customers must be different. Hence, the author disagrees with Zeithaml and Bitner (2003, p.63) who state that “desired service expectations seem to be the same for service providers within industry categories or subcategories that are viewed as similar by customers” because in his opinion customers should not and do not expect the same service level and facilities from a 3-star, a 5-star hotel or a 7-star hotel. How else would they justify the relative price differential or the price / quality relationship?

Nonetheless, this is not the case for adequate level expectations. These lowest levels of acceptable service can vary for different firms in the same category or subcategory of an industry. For example, a customer may have higher expectations during his stay at a Hilton hotel rather than at Renaissance. These higher expectations may have been formed by experiences the customer created when staying in each of these hotels. The differences may be minimal; still they may be enough to create different adequate service level expectations.

Considering the example stated before, assuming that both of these 5-star hotels offer exactly the same service but while staying at Renaissance the customer had a problem with his television set and for the 2 nights spent there the problem was not fixed. This did not happen during his stay at the Hilton. This perception formed by his experience of staying in these hotels will influence his future expectations. While for both cases the guest would expect that any problem faced would be solved within an acceptable time period, it was not, hence, his future expectations of the two hotels will be somewhat different irrespective of what their actual levels of service are (Zeithaml and Bitner, 2003). Consequently, there is a difference between desired service levels and adequate service levels in customers' minds. This difference is known as the *zone of tolerance*. Zeithaml and Bitner (2003, p.63) defined the zone of tolerance as "the extent to which customers recognize and are willing to accept this variation" between desired and adequate service levels. The zone of tolerance is graphically shown in Figure 3.5 below:

Figure 3.5: The Zone of Tolerance

Source: Zeithaml and Bitner, (2003, p.63)

According to Zeithaml and Bitner (2003), if the service falls below the adequate service level, is the minimum level of a service considered acceptable by customers, customers will be dissatisfied. On the contrary, if the service experienced is above the line of desired service, which refers to the 'should be' performance or the ideal performance a customer expects to receive from a service provider, customers will be very satisfied. The zone of tolerance in the middle of the graph, separating desired and adequate service levels is a range in which customers do not evaluate service performance. To put it differently, if the service level experienced during the service encounter is anywhere in the zone of tolerance, it will not attract the attention of the consumer either positively or negatively. This concept can be illustrated by the example of consumers waiting in a queue either to be serviced by a bank teller, to order food at a fast-food restaurant or to check in at an airport. Depending on the specific situations of each of these customers, their zones of tolerance will be wider or narrower. One of the factors that may influence the tolerance levels of these customers is the time they have at their disposal to make a deposit, order food or check in. Availability of time may extend the zone of tolerance, while time constraints for any reason condense it. The flexibility of tolerance zones may also be influenced by such factors as price, unreliable service and others. In conclusion, one should note that zones of tolerance are not the same for all customers and they vary according to the importance of each service factor in consumers' minds (Zeithaml and Bitner, 2003). Nadiri et al. (2009b) evaluated the zone of tolerance and customer satisfaction level of university students in Northern Cyprus and supported the idea that the evaluation of desired and adequate expectations might be useful in describing and following service performance and customer satisfaction. Their findings demonstrated that young customers using bank services had a narrow zone of tolerance.

3.3.2.2 Application of SERVQUAL in Banking

Over time, with the growing importance of the service industries in all developed economies, the significance of quality of service has also grown. The inception, conceptualization and operationalization of SERVQUAL as a generic instrument to measure and diagnose the level of service

quality in various service industries followed suit. However, the claim of its authors that the approach should be viewed as a generic instrument and as such could be used in different service companies in various industries has given rise to a lot of testing and several criticisms. Various researchers have developed modified SERVQUAL models to measure perceptions of service quality in service settings other than banks, such as Ekinci et al., (1998), who tested a version of SERVQUAL using a more specific scale for the lodging industry developed by Knutson et al. (1990), called LODGSERV, which was composed of 16 SERVQUAL items and 2 LODGSERV items and Robledo (2001), who compared six instruments (weighted and unweighted versions of SERVQUAL, SERVPERF and SERVPEX) to measure service quality in an airline setting and found that the unweighted SERVPEX, consisting of three dimensions, namely tangibility, reliability and customer care, had a better diagnostic capability than the others.

SERVPERF, which was developed by Cronin and Taylor (1992), uses the 22 items of the perceived performance scale from the SERVQUAL instrument. Researchers such as Carman (1990), Bolton and Drew (1991) and Cronin and Taylor (1992), believed that SERVPERF was more efficient and offered more validity in measuring service quality. As explained by Jain and Gupta (2004), SERVPERF made things simpler by reducing the items to be measured by 50%, which added to the efficiency of the tool over SERVQUAL. They also added that SERVPERF explained more of the variance in the overall service quality measured as it utilized a single-item scale. Finally, the superiority of SERVPERF over SERVQUAL was admitted in a study by Zeithaml, who stated that (cited in Jain and Gupta, 2004, p.29) "…our results are incompatible with both the one-dimensional view of expectations and the gap formation for service quality. Instead, we find that perceived quality is directly influenced only by perceptions (of performance)".

SERVPEX is a tool that measures disconfirmation in a single questionnaire, which incorporates both expectations and perceptions in a single scale (from "much worse than expected" to "much better than

expected"). It also explains a higher proportion of the variation when measuring service quality and, as stated by Robledo (2001), the tool has the highest predictive power, hence it is the most adequate scale to utilize when measuring service quality employing the disconfirmation paradigm. Overall, the study to define quality in the airline service determined that service quality could be measured by 26 items that loaded onto three factors, namely tangibility, reliability and customer care.

The major criticisms of SERVQUAL are discussed in the following section, but first the author will examine how several other researchers tested the instrument and developed alternative methods based on the instrument to measure service quality in the banking sector. A summary of these is presented in Table 3.2.

(i) Blanchard and Galloway (1994) based their findings on work carried out with TSB Bank plc in the UK, their purpose being to identify customer and staff perceptions of the factors that determine service quality. They admitted that, even though the SERVQUAL gap model provided a solid basis, it was found that its value was of limited usefulness. Their research resulted in an alternative model composed of three dimensions, namely process/outcome, subjective/objective and soft/hard. They also found that customers significantly took into consideration the process factors of the service when assessing service quality and that the staff of the service provider showed a lucid perception of customer expectations and admitted the necessity to meet them. One may conclude that, bearing in mind this finding, any differences arising out of the P-E should be attributed to the gaps as listed in the SERVQUAL model. Furthermore, companies should most probably try to listen to their employees, more especially because they are the ones who have the most frequent contact with customers.

(ii) The study of Avkiran (1994) aimed at ascertaining the features that determine customer service quality. The author's conceptualized model included 27 items resulting in six dimensions, which were empirically reduced to 17 items in 4 dimensions, namely staff conduct, credibility, communication

and access to teller services. Avkiran constructed a scale comprised of a single measure that asked respondents to rate their perceptions and expectations in a single statement; in other words the same statement was used for the rating of both customer perceptions and expectations. Avkiran named his model BANKSERV. One of the most important findings was the importance of the staff-customer contact, and its high value for customers. The author issues a warning to the advocates of high technology use in branches that will result in lower numbers of bank branches and states that for the great majority of customers, staff-customer contact is of outmost importance for high customer service quality. Therefore, banks must provide the necessary staff in order to respond positively to customer needs and expectations. The author implies that banks that embrace high technology solutions to a great extent might lose in terms of perceived service quality in the minds of consumers, along with the negative outcomes described in section 3.4.1. The study also suggests that longer waiting periods for customers may result in negative assessments of perceived service quality. Curry and Penman (2004) also stated that the personal relationship of a banker with his/her customers is more important than the one created by technology. They also expressed the view that banking technology is more readily accepted and used if utilised with the assistance of bank employees. On the other hand, many employees expressed their concerns with regard to the time needed to fulfil their work obligations which had been handled by more people in the past and lack of training, a vital part of achieving high levels of service quality. Overall, as Curry and Penman (2004, p.339) pointed out: "The banker and customer have to interact on a reasonably regular basis for true customer satisfaction to be realised. Development of this relationship has to be regarded as an investment for the future in terms of retaining customers over time, gaining new ones from competitors and generating positive word of mouth recommendations, which are all key to long term service success".

(iii) Johnson et al., (1995) tested another structure in the quest for measurement of consumers' perceptions of service quality. They employed the systems approach and maintained that any measure of service quality should consider all dimensions of the service, which are inputs,

processes and outputs. *Input quality* describes consumers' overall assessments and includes appraisals of both tangible and intangible elements. *Process quality* refers to the quality generated by the service encounter between the service provider's employees and consumers. In other words, it is formed by the 'how' the service is produced. *Output quality* describes the 'what' is produced and evaluates the result of the service. Their suggested model showed that output quality was the best forecaster of overall service quality, while process was the second. Input quality was not important for any of the services under scrutiny. The study showed that all the dimensions explained an important part of the variation in overall quality perceptions.

(iv) A study conducted in India by Angur et al. (1999) aimed at analyzing the suitability of different methods that measure service quality in two major banks. The researchers compared the applicability of SERVQUAL and SERVPERF in that context. Based on their results, they found that service quality was a multidimensional construct and held that the SERVQUAL instrument provided better diagnostic information than SERVPERF. However, none of the instruments under examination showed better predictive ability than the other, and the original five dimensions of SERVQUAL were not seen to be validated in total.

Perhaps the most important finding of this study was that, as time goes by, and as banks employ more and more technology in their operations, the relevant importance of technical quality outcomes compared to process related quality lessens as a differentiating factor, hence "consumers will evaluate banks based more on their 'high-touch' factors than on their 'high-tech' factors". In other words, process quality outcomes, which have to do more with service production and delivery, and thus are more relevant to the service encounter between the service employee and the consumer, will play a more important role for service quality assessment in the minds of consumers than the technical quality outcomes, which, as other studies have shown, cannot be measured by consumers.

(v) Another study compared SERVQUAL and technical/functional quality measures as to their capacity to predict customer satisfaction. The study was conducted taking a sample of international private banking customers by Lassar et al. (2000). Their major findings suggested that the five dimensional structure of SERVQUAL might not be universal across all service settings, a finding supported by other studies, and that the Gronroos model of technical/functional quality measures explained more of the variance in total satisfaction than SERVQUAL. They also suggested that the Gronroos model could predict overall satisfaction better in high-contact service settings, where the encounter between service employees and customers is greater. Finally, they indicated that service failure and communication might influence the service quality and satisfaction process.

(vi) Bahia and Nantel (2000) developed a model that was basically an adaptation of SERVQUAL since they used the same methodology. However, it was composed of 31 items that loaded onto six dimensions. This model was called Banking Service Quality (BSQ) as it was specifically developed to measure service quality in banking.

(vii) In the years between 1993 and 1997 a major UK bank pioneered a nationwide execution of the SERVQUAL instrument. As Newman (2001) explains, the study showed several disadvantages of the instrument, both for its diagnostic value and its use as a measurement tool. The project also showed that practical difficulties with regard to the implementation of the tool arose when service quality management was separated from marketing and human resource management and when there was a lack of top management support. Several authors support the notion that commitment of top management support in the employment of any quality program is vital to achieve success, thus lack of it allows for little, if any, chance for success. Perhaps, the most important finding of this study was that when factors considered as vital by consumers (such as reliability of service delivery) were low, soft quality factors, irrespective of the level at which they were assessed by consumers, could not make up the difference.

(viii) Sureshchandar et al. (2002), after critically examining the literature on SERVQUAL, found that the instrument could not be considered complete since several factors and relevant items had not been included and, therefore, important elements that might define service quality dimensions had been left out. Hence, the study aimed to present vital determinants of service quality that were unobserved in previous studies, and proposed a construct to measure perceived service quality. The instrument was designed with specific reference to banks in India. Their final model was composed of a five-factor structure consisting of core service, human element of service delivery, systematisation of service delivery, tangibles and social responsibility (including improvements in image and goodwill).

(ix) Another modified version of SERVQUAL to measure service quality in banks in the UAE was developed by Jabnoun and Al-Tamini (2003). The authors tested an adapted version of the perception side of the generic instrument, composed of 30 items, distributed across the five dimensions of SERVQUAL. After appropriate testing, the resulting instrument consisted of three dimensions, namely, *human skills*, *tangibles* and *empathy* and was made up of 22 items. The study showed that the human skills dimension was the most important. This dimension included items from the original dimensions of reliability and assurance, supporting in a way Parasuraman, Zeithaml and Berry's, notion that reliability was the most vital dimension.

(x) A variation of the SERVQUAL instrument, SERVPERF, was employed to measure consumer satisfaction and other consumer intentions for banking services in China by Zhou (2004). After the relevant data analysis, the author suggested a three-dimensional model, namely empathy/responsiveness, reliability/assurance and tangibility. The most important dimension in this context was assurance, since the author suggested "providing reliable banking transactions with promises of assurance seem to be the most appealing service criteria for the targeted consumers". This finding is in contrast with the finding of Parasuraman, Zeithaml, and Berry that reliability is the most

critical dimension. As a final point, the researcher holds that the cultural characteristics of customers may influence the applicability of the model and its constructs in different markets.

(xi) The study of Bhat (2005) aimed at measuring service quality of foreign and local banks in India. Major findings were that the service quality of foreign banks was much better than that of Indian banks and that there were differences across the demographic characteristics of the sample. Specifically, the study revealed that (1) as the income of the respondents rose, the level of service quality of Indian banks increased as well, but not proportionately, (2) the service quality was higher for older age groups but lower in younger age groups, (3) poor service quality levels were due to a large extent to deficiencies in the tangibles and responsiveness dimensions, and (4) service quality was higher in region 3 comparative to the other regions covered by the study, which, according to the author, was due to the higher level of banking competition in region 3, indirectly suggesting that higher levels of competition boost the level of service quality offered and support the notion that service quality is used as a differentiating tool to achieve a competitive advantage over the competition.

(xii) A study was conducted in Cyprus by Arasli et al., (2005a) to measure service quality perceptions of customers in the Cyprus banking industry using the SERVQUAL instrument. They measured service quality by taking a sample of 260 retail banking customers and administered a version of SERVQUAL that was first translated into the Greek language. Their results showed a three-dimensional structure of SERVQUAL in contrast to the five-dimensional structure proposed by Parasuraman et al., (1988).

However, the study states that the complexity of services is partly due to their “homogeneity”, rather than their “heterogeneity”. Additionally, the financial services sector in Cyprus contributes around 9% of GDP (ACB, 2010) rather than the 20% stated in their study (Arasli et al., 2005a). Further, the study sample was collected in a main street (composed for the most part of shops and cafes and including

large numbers of third country nationals) of Nicosia (the capital city), raising doubts as to the representativeness of the sample to the population of either the city or the country as a whole. What is more, the ages referred to, in their study do not represent the age structure of Cyprus or at least that of the city of Nicosia. In reality, the age group of 21-30 is much less than the 30% of respondents in the study.

The authors also stated that there were no foreign banks in Cyprus and that with the arrival of foreign banks, Cypriot banks would face harsh competition, whereas in fact foreign banks have existed for several years, the latest addition being Societe Generale. Other foreign banks include the Arab Bank (of Jordanian interest) which was recently acquired by Piraeus Bank, the National Bank of Greece, Alpha Bank, (all three of Greek interest), Emporiki Bank (which belongs to the Credit Agricole Group) and many other banking units. In addition to the Cypriot banks, there are 27 banking units of non-Cypriot or Greek interest listed on the website of the Central Bank of Cyprus. Having said this, it is in fact quite difficult for these banks to compete with the three large local banks that hold more than 80% of the market share and show no signs of losing out to foreign competition, in contrast to what the authors stated.

Finally, a limitation stated by the authors regarding the non-existence of cross-cultural research is true and might well have negatively influenced their results. (Arasli et al., 2005a, pp.53-4)

(xiii) A second study by Arasli et. al., (2005b) aimed to compare service quality perceptions of bank customers in North and South Cyprus and to evaluate customer satisfaction in the Turkish- and Greek-speaking areas of the island. To conduct the study the authors employed SERVQUAL and used a sample of 268 respondents. The resulting structure was four-dimensional as the responsiveness dimension did not load onto the final model.

In contrast to their earlier study, homogeneity of services was not mentioned and a truer picture of the banking industry in Cyprus at that time was represented, acknowledging the strong position of the three larger banks (mainly of Cypriot interest) and merely suggesting the possibility of losing market share to foreign competition rather than stating it categorically, as in their earlier study. They did, however, state that "commercial banks in the South (ie Cyprus) employed a workforce with a secondary education background" (p. 511), whereas in reality the workforce of Cypriot banks is highly educated, with more than 60% holding a diploma, a bachelors or a masters degree.

Finally, the sample collected for their study, 268 respondents, 138 from the North and 130 from the South, is rather small for factor analysis. As discussed in section 4.3.3.5 of this study and according to Hair et al's., (2006) suggestions, for each question asked five to ten responses are recommended. Since the final questionnaire was composed of 44 items, the sample size should have been between 220 and 440 questionnaires. According to the authors, the size of the sample for the South was influenced by the lack of cross-cultural research between the two areas. They also explained that the use of convenience sampling might have influenced the collection of a more homogeneous sample with respect to gender and other demographic factors; both of these issues were recognized by Arasli et al. (2005b, p.523) as limitations of their study.

(xiv) Lee and Hwan (2005, p.646) concluded in their study of the relationships among service quality, customer satisfaction and profitability in the Taiwanese Banking Industry, that "service quality influences purchase intentions more than does customer satisfaction". This is a significant finding since it shows the importance of service quality for higher profitability in banks. This finding also stresses the importance that should be given to service quality by bank managers worldwide as it proves the positive effect of service quality on customer satisfaction, which leads to purchase intentions, and, of course, to higher profits.

As stated earlier and especially as can be concluded from the previous section in which was described the application of the instrument in the banking sector in several different countries, SERVQUAL has taken a central role in measuring service quality in services. As such and even though it is still regarded as the most widely used instrument for measuring service quality, SERVQUAL has attracted over the years a number of criticisms. These are discussed next.

Table 3.2: Application of SERVQUAL in Banking

Authors/Researchers	Description	Important findings
Blanchard & Galloway (1994)	- Three dimensions, named Process/Outcome, subjective/objective, and soft/hard	- Customers consider the process factors when assessing service quality - Employees are aware of customers' expectations
Avkiran (1994)	- BANKSERV, 17 items loaded in 4 dimensions, namely staff conduct, credibility, communication, access to teller services	- Importance of staff-customer contact and its high value for customers. Banks that embrace high technology solutions to a great extent might lose in terms of perceived service quality in the minds of consumers. - Longer waiting periods for customers may result in negative assessments for perceived service quality.
Johnson et al., (1995)	- Any measure of service quality should consider all dimensions of the service, which are inputs, processes and outputs.	- Output quality was the best forecaster of overall service quality.
Angur et al., (1999)	- Compared the applicability of SERVQUAL and SERVPERF in two banks.	- SERVQUAL provided better diagnostic information than SERVPERF. - The five dimensions of SERVQUAL were not seen to be validated in total. - Process quality outcomes are more relevant to the service encounter and will play a more important role for service quality assessments in the minds of consumers than the technical quality outcomes.
Lassar et al., (2000)	- Compared SERVQUAL and technical/functional quality measures as to their capacity to predict customer satisfaction to a sample of international private banking customers.	- The five dimensional structure of SERVQUAL may not be universal. - The Gronroos model of technical/functional quality measures explains more of the variance in total satisfaction than SERVQUAL. Also, it can predict overall satisfaction better in high-contact service settings. - Service failure and communication may influence the service quality and satisfaction process.

Authors/Researchers	Description	Important findings
Bahia & Nantel, (2000)	- Banking Service Quality (BSQ) instrument composed of 31 items loaded in six dimensions.	- Specifically developed to measure service quality in banking.
Newman, (2001)	- Nationwide execution of SERVQUAL for a major UK bank between 1993 and 1997.	- Found several disadvantages of the instrument, both for its diagnostic value and its use as a measurement tool, especially if there is lack of top management support. - When factors, which are considered as vital by consumers are low, then soft quality factors, irrespective of the level at which they are assessed by consumers, cannot make up the difference.
Sureshchandar et al., (2002)	- Proposed a construct to measure perceived service quality for banks in India composed of a five-factor structure consisting of core service, human element of service delivery, systematisation of service delivery, tangibles and social responsibility.	- SERVQUAL cannot be considered complete since several factors and the relevant items have not been included, hence, important elements that may define service quality dimensions have been left out. - Aimed to present vital determinants of service quality that were unobserved in previous studies.
Jabnoun & Al-Tamini, (2003)	- Modified version of SERVQUAL (perception side only) to measure service quality in banks in the UAE. The resulting instrument consisted of 22 items loaded on three dimensions namely human skills, tangibles, and empathy.	- The human skill dimension was the most important, which included items from the original dimensions of reliability and assurance of SERVQUAL.
Zhou, (2004)	- Employed SERVPERF to measure customer satisfaction and other consumer intentions for banking services in China. The author suggested a three dimensional construct (empathy/responsiveness, reliability/assurance and tangibility).	- The most important dimension was assurance in contrast to the finding of Parasuraman et al., (1988) that reliability is the most critical dimension. - The researcher suggests that the cultural characteristics of customers may influence the applicability of the model and its constructs in different markets.

Authors/Researchers	Description	Important findings
Bhat, (2005)	- Study measuring service quality of foreign and local banks in India.	- Service quality of foreign banks was much better than that of Indian banks - There were differences across demographic characteristics in variables such as income and age.
Arasli et al, (2005a)	- Used a version of SERVQUAL to measure Greek Cypriot bank customers' expectaionts and perceptions of service quality and to examine the relationship between service quality, customer satisfaction and positive word-of-mouth. Their results showed a three dimensional (reliability, responsiveness/empathy, and tangibles) construct made up of 14 items.	- Expectations were higher than perceptions. - Expectations of bank customers were not met and the largest gap was found in the responsiveness/empathy dimension. - Employees are very important during the service delivery act. - Reliability has the highest effect on customer satisfaction.
Arasli et al., (2005b)	- To compare service quality in the banking sector of Cyprus and to examine the relationship between customer satisfaction and positive word-of-mouth in the Turkish and Greek speaking areas of Cyprus. - Their results supported a four-dimensional construct (reliability, assurance, empathy and tangibles) consisted of 18 items.	- Expectations of customers for both the Greek and Turkish speaking were not met by the service providers. - The largest gap appeared in the empathy dimension. - Customer satisfaction was mainly influenced by the assurance dimension. - The responsiveness dimension was not part of the construct. - The importance of employees for customers in both areas is supported by the findings of this study. - The tangibles dimension was found to be significant in this study in contrast to Parasuraman et al's, (1988) argument that tangibles was the least important dimension.
Lee & Hwan, (2005)	- Studied the relationship among service quality, customer satisfaction and profitability in the Taiwanese banking industry.	- They found that service quality influences customer intentions more than customer satisfaction. - Stresses the importance that should be given to service quality by bank managers.

3.3.2.3 Criticisms of SERVQUAL and Implications

SERVQUAL is an invaluable tool for organizations to better understand what customers value and want and how well their organizations meet the needs and expectations of their customers. Llosa et al. (1998), (cited in Tan and Pawitra, 2001, p.418) stated, "The conciseness in defining customer service and the user friendly format of SERVQUAL have helped make it into an industry standard". It is generally agreed, that the instrument is suitable for measurement of service quality because it measures key aspects of service quality. Asubonteng et al. (1996), moreover, claimed that SERVQUAL was popular with managers because it combines ease of application and flexibility. Managers know that the results obtained using the model are probably not objective but they do help in identifying the direction in which the firm should move to correct its weak points. It is widely accepted, as evidenced in the literature, that SERVQUAL has taken a central role in the measurement of service quality and as such it has attracted a lot of interest by several scholars and researchers. They have applied and tested the instrument in several different service industries. In spite of its acceptance by the research community, the instrument has come under criticism from several researchers, such as Carman (1990), Cronin and Taylor, (1992), Babakus and Boller, (1992), Fisk et al., (1993), Teas (1993a; 1993b; 1994), Buttle (1996), Van Dyke et. al. (1997) and others whose arguments are examined below. Their criticisms centre on conceptual and empirical issues. Some other authors taking note of these criticisms came up with other models, still largely based, though, on SERVQUAL. These were discussed in the previous section.

Briefly, SERVQUAL is a subjective instrument that measures perceptions. By definition, perceptions are difficult to define, operationalize and quantify. It measures service quality indirectly through the difference between the expected level of service and experienced level of service.

Some of the major conceptual and operational problems with the SERVQUAL instrument are presented in Table 3.3.

3.3.2.3.1 Theoretical Problems

The major conceptual problems with the instrument are:

(a) In essence, two instruments are used to measure perceptions and expectations and their combined result, in turn, produces a third construct which is the perceived service quality score. According to Buttle (1996), there is little evidence that customers assess service quality in terms of P-E gaps. What is more, people have the tendency to rate expectations high and performance low, especially if they are dissatisfied, even for a minor reason. For example, customers may be satisfied with a hotel's quality i.e. its tangibles, assurance, etc. However, if a waiter delays in serving a soft drink, they degrade the whole service experience. Customers who have had a negative experience with the service provider tend to overstate their expectations, creating a larger gap, and customers who have had a positive experience tend to understate their expectations, resulting in smaller gaps (Buttle, 1996). Teas (1994) concludes that higher P-E scores may not always correspond to higher levels of perceived quality and, therefore, the SERVQUAL perceived quality structure may not be theoretically valid.

(b) Cronin and Taylor (1992), after evaluating several of the criticisms raised against the instrument, concentrated on the issue of expectations that lie at the centre of the disconfirmation model as described by Parasuraman et al. (1985; 1988). Cronin and Taylor investigated the conceptualization and measurement of service quality and their results suggested that a performance-based measure of service quality might be an improved means of measuring service quality. Hence, they accepted the validity of the 22 individual performance scale items that make up the SERVQUAL scale and stated that they adequately defined the domain of service quality and used the same performance items to examine their proposed alternative model, called SERVPERF. Their evidence supports the administration of the performance-only questionnaire, since according to their results, perceived service quality is the factor which will lead to future actions. Specifically, and based on their findings, perceived service quality leads to satisfaction and consumer satisfaction appears to have a stronger and more consistent effect on purchase intentions. Therefore, companies should care about the perceptions that customers form from

the service encounter and not about the difference score (P-E), which does not provide such clear direction.

Besides, their instrument showed better construct, content and discriminant validities. In all of the four industries examined, SERVPERF explained more of the variation in service quality than SERVQUAL. It is also more efficient as it uses only 50% of the items used in SERVQUAL, which means it will take half the time to complete the questionnaire and collect the data as a whole. Finally, they also confirmed that the SERVQUAL items were not universal and that the scale items might be different across different service industries. Moreover, Gronroos (2000, p.78) supported the notion that measuring perceptions only "may be the best and most valid way of measuring perceived service quality using an attribute approach to measure customers' experiences of the service only". He also highlighted the expediency of administering the instrument and the ease of analyzing the collected data as advantages of administering only one measurement instrument.

Studies by Haksik et al. (2000) and Luk and Layton (2004) also supported the hypothesis that the performance-based measures of service quality capture more of the variation than do difference measures. Lastly, Landrum and Prybutok (2004) have also supported the same view as they stated "performance scores alone offer higher reliability and validity, plus the advantage of requiring less time for respondents to complete" (p.638).

(c) Another criticism involves the existence of gaps as a means to measure and explain service quality based on the disconfirmation model. Babakus and Boller (1992) believed that the use of gap scores did not provide any additional contribution and that the perceptions part of the instrument contained all the relevant information needed to measure service quality effectively. They also found that the respondents' tendency to rate expectations high rendered the use of the expectations

component inefficient and supported that the major influence on the gap score was a result of the perceptions part of the instrument.

Furthermore, Teas (1994), as in his earlier studies of 1993 (a; b), considered if the gaps produced by the P-E measurement from the application of the SERVQUAL instrument had the same meaning if the result produced was the same. To explain it better, he gave as an example six different ways that produce P-E gaps of -1. These are P=1, E=2; P=2, E=3; P=3, E=4; P=4, E=5; P=5, E=6; P=6, E=7. The results of these calculations always produce -1. Do these gaps mean equal perceived service quality, that is, is the gap of -1 resulting from P-E scores of 1-2 the same as the gap of -1 produced from P-E scores of 5-6?

Moreover, Page and Spreng (2002) supported earlier critics of the diagnostic ability of SERVQUAL, explaining that if managers were to concentrate on only the largest gaps between perceptions and expectations they might be missing important attributes, since the existence of a large gap does not necessarily mean that the quality indicator is important. Finally, they hold that the use of difference scores might disguise the true implications of the construct, hence, forbidding any diagnostic understanding of their effects. Conclusively, they hold, as do earlier researchers, that performance indicators are the major predictors of perceived service quality.

(d) SERVQUAL focuses more on the process of service delivery and less (if at all) on the outcomes of the service encounter (Gronroos, 1990; Buttle, 1996). The instrument does not include any measure of the technical quality dimension. Essentially, the technical quality dimension has been neglected in efforts to study and measure service quality. Lacking the ability to assess technical quality, consumers rely on other measures of quality attributes associated with the process (the 'how'), for example, of health service delivery. Patients would most likely rely on attributes such as reliability and empathy to assess quality because they do not have the knowledge or the ability to evaluate the

outcome of the service experience. Higgins et al., (1991), have argued in favour of SERVQUAL, stating that outcome quality is already contained within the dimensions of reliability, competence and security.

Nevertheless, the service providers' technical competence, as well as the immediate results from treatments, may be difficult for a patient (customer) to evaluate. Some services are very difficult to assess due to high credibility properties, for example in health-care and law, while others are easy to assess based on experience and search properties (Kang and James, 2004). Gronroos (1982) also supports the view that the process or functional aspects of service quality are perhaps more important than the outcome or technical aspects, but concludes that both technical and functional aspects are important in the measurement of perceived service quality. Blanchard and Galloway (1994) also concluded that customers in their vast majority consider the process elements of the service when evaluating quality by seeking a responsive service with a high level of assurance, which gives a feeling of competence, credibility and trust.

Surely customers evaluate the outcome of consumption, the overall result they receive from their dealing with a specific service provider. Irrespective of the service quality of any service provider, the customer will base his/her perception not only on the perceived service quality but also on the actual performance of the product or service consumed. As Luk and Layton (2004, p.274) explain "Hotel guests evaluate the outcome of consumption, which is primarily formed by core food and beverage elements, as well as the frontline service provider's commitment, service knowledge and manner, to judge the overall quality of room service. Marketers of hospitality service must bear in mind that good service manner can never compensate for poor food and drinks." The importance of the outcome of the service is also supported by Caro and Garcia (2007). Their study demonstrated that the outcome is a principal determinant of service quality and customers do consider highly significant the results of the perceived service.

(e) Contrary to Parasuraman et al.'s (1985; 1988) assertion, SERVQUAL's five dimension structure is not universal, as noted by several other authors in their studies. Gagliano-Bishop and Hathcote (1994) extracted four factors (personal attention, reliability, tangibles and convenience) in the retail clothing sector. Babakus and Boller (1992, p.265) commented that "the domain of service quality may be factorially complex in some industries and very simple and unidimensional in others". They claim that the number of service quality dimensions is dependent on the particular service being offered and therefore it is not worth pursuing the development of a standard measurement instrument. As stated earlier, Gronroos (1984) identified three dimensions, namely technical quality, which refers to the what, or the outcome of the service, functional quality, which refers to the how or the process quality of the service and image quality, which refers to reputation and corporate quality. Buttle (1996) also states in his study that the five dimensions are not universal. One of SERVQUAL's authors, Zeithaml, agrees with the conclusion that the five dimensions of the instrument are not generic and that the number and definition of the dimensions varies depending on the context. Specifically, the author states "…we fail to reject the two-dimensional representation of quality in favour of the five-dimensional representation. Thus, the limited dynamic model (exhibited in their study) represents the preferred model for overall perceived quality for our particular application" (Boulding et al., 1993, p.23-4).

The instrument also states dimensions in order of importance. Nonetheless, this order may change based on the service encounter. For example, tangibles which are of least importance have a great impact on customers in health care. Responsiveness, which is a major component, was relatively weak in the dental clinic context (Carman,1990). Items or factors do not always load onto the dimension which one would a priori expect, hence some studies produce results that explain the variance with two or three dimensions, and there is also a high degree of intercorrelation between the five dimensions (Buttle, 1996). SERVQUAL is composed of 22 items, with four or five items loading onto each dimension, irrespective of each one's importance. The items, as stated above, also may vary according to the service encounter. For example, Carman's (1990) study of hospital services employed 40 items,

and Bouman and Van der Wiele (1992) used 48 items in their car service research. Carman (1990) holds that SERVQUALs' dimensions are not completely generic.

The researcher recommends that seven or eight items from the original ten dimensions should be retained until factor analysis shows that they are not unique. Moreover, Cronin and Taylor (1992, p.65) suggested that the items used to measure service quality in one industry might be different in another. They go on to suggest that "perhaps high involvement services such as health care or financial services have different service quality dimensions than low involvement services such as fast food or dry cleaning." This problem with the dimensionality of the instrument was also supported by Brown et al. (1993). They found, again, that the dimensionality did not replicate. Their factor analysis of the 22 items, resulting in the 5 dimensions of the SERVQUAL instrument, showed that they might represent one dimension (hence, a unidimensional construct).

An alternative structure for modelling service quality was developed by work undertaken within TSB Bank plc to determine both retail customer and staff perceptions of service quality factors. This resulted in a three dimensional construct of process/outcome, subjective/objective and soft/hard factors (Blanchard and Galloway, 1994). Sureshchandar et al. (2001) hold that a careful inspection of the SERVQUAL items suggests that the scale does not include all relevant items as it omits several critical aspects of perceived service quality, such as the service product or the core service (CONTENT), systematization / standardization of service delivery (the non-human element; HOW), and the image / goodwill of the service firm established in the society in which it operates (social responsibility of the service organization). Their research proposed five new dimensions composed of 41 factors.

Jabnoun and Al-Tamini's study (2003) examined how well a modified version of the instrument would measure service quality in UAE commercial banks. Their instrument resulted in three dimensions (human skills, tangibles and empathy), consisting of 22 items. The studies of Luk and Layton (2004),

Landrum and Prybutok (2004) and Markovic, (2005), suggested that the structure of the five dimensions, as suggested by Parasuraman et al. (1988), might not measure the overall quality of a specific service and the dimensionality of the instrument was not constant, rather it would depend on the service being evaluated. .

A study, assessing the applicability of the perceived service quality scale to higher education services was conducted by Nadiri et al., (2009a), among students of the Eastern Mediterrenean University in Famagusta, Northern Cyprus. The results showed that the five assumed dimensions were not replicated and that the resulting instrument, even though it included all the 22 items, was made-up of only two dimensions – tangibles and intangibles. A related study by Nadiri et al., (2009b) was conducted in North Cyprus, once more among students, to describe the range of zone of tolerance for service expectations of young customers with regard to banking services. Even though the dimensionality of the resulting instrument (BANKZOT) was not the purpose of their study, their findings revealed that the instrument was unsuccessful in replicating the five dimensions of the SERVQUAL instrument. Rather the authors found that the service quality construct for this market was uni-dimensional.

Chowdhary and Prakash (2005) suggested that a different approach was needed to measure service quality and proposed that each factor should be considered independently and not as a combination in a dimension. They evaluated the possibility of classifying the determinants of service quality into two types of factors along Herzberg's two-factor motivation theory, and Johnston's (1995) study that used the two-factor method and grouped service quality determinants into satisfiers and dissatisfiers. Chowdhary and Prakash (2005) developed two other factors, namely vantage factors and qualifying factors. Vantage factors refer to factors that are continuously sought by consumers and all their assessments about service quality performance are influenced by them. They are considered to be dominant factors. Over time the importance of the dominant factors decreases and they are not that

significant for consumers when evaluating service quality. The factors which lose their importance over time are called qualifying factors. However, lack of these factors during service delivery might have a negative impact and drive customers away. At the same time their presence is a given in the mind of consumers and considered a vital part of the service, but does not attract consumers any more.

The universality of SERVQUAL was also challenged by Caro and Garcia, (2007), who examined the service quality construct of the urgent transport service sector. They supported the development of specific instruments for different services. As they stated (p.67): "customers make their judgments of service quality on the basis of a series of factors that are specific to the evaluated service". The dimensionality problems of service quality were also supported by Ladhari (2008), who examined 30 studies on service quality that confirmed its multidimensionality, but at the same time they demonstrated that the number and nature of the dimensions varied depending on the industry being examined. Ladhari, (2008, p.78) concluded that "It is apparent that the criteria used to evaluate service quality differ among customer groups and circumstances". Overall, Parasuraman et al. (1991a) accepted that the five dimensions of the instrument were interrelated and stated that there was a need for further factorial analysis to obtain more reliable and distinct results.

To be objective in the discussion about service quality, it is important to note that there are studies which adopt the SERVQUAL instrument as it stands. Such is the study of Sultan and Simpson(2000), who hold that their findings, in international airline travel, supported the use of SERVQUAL in international settings and that the reliability dimension was found to be the most important among the five, which is consistent with the findings of Parasuraman et al. (1988). However, they also found that expectations and perceptions of service quality varied by nationality groups. The latter was also supported by Martinez and Martinez (2010), who suggested the development of service quality indicators that are country and/or culture specific. Moreover, Chand (2010), in his application of the SERVQUAL model to measure service quality of Indian tourism destinations, suggested that

consumers' perceptions of the importance of service quality dimensions were influenced by national differences and as such tourism managers should make efforts to satisfy the needs of different groups of tourists that are culturally defined.

3.3.2.3.2 Operational Problems

Empirical problems arise in large part from the conceptual problems. They include the use of difference scores, low reliability, unstable dimensionality and poor convergent validity.

(a) The term 'expectations' is not the only parameter used by consumers to evaluate the level of the service experience. They use other standards as well, thus the instrument fails to measure absolute service quality expectations. Furthermore, a customer may have low expectations based on previous experience with the service provider or word-of-mouth communication (Buttle, 1996). If those expectations are met, service quality is deemed to be satisfactory. Both expectations and performance are not absolute, but subjective to each individual's own criteria. Teas (1993b) believed that the definition of the word 'expectation' in consumers' minds is to some extent unclear, and as such he questioned their responses to the instrument. Teas (1993b) identified six different interpretations of the word 'expectations' that respondents might be using when called to assess their expectations with regard to service quality. These six interpretations are:

(i) *Service attribute importance* arises when respondents rate the expectations statements according to their importance.

(ii) *Forecasted performance* is identified when customers use the scale to predict the performance they would expect.

(iii) *Ideal performance* refers to the 'optimal' performance or, in other words, what performance 'can be'.

(iv) *Deserved performance* refers to the performance level customers believe they *should* receive with relation to the perceived set of costs incurred for the expected service.

(v) *Equitable performance* refers to the performance level customers believe they *ought* to receive with relation to the perceived set of costs incurred for the expected service.

(vi) *Minimum tolerable performance* refers to what performance 'must be'.

As can be seen, all these meanings are relatively close to each other, hence the expectation statements of the instrument may lack discriminant validity. Moreover, people do not always have the same expectations of a service setting and the factor that highly satisfies someone may be of mere importance to the rest. For example, a respondent rates the expected service of a small motel in a town as a six and the expected level of service in a Hilton hotel as a six. Are the two expectation scores equal? Do they refer to the same set of expectations? Most probably not.

(b) A criticism that is not often discussed in the literature deals with the dynamics of expectations that change over time. It is implied in the literature that expectations may rise over time so that an expectation score collected, for example in 1990, may not mean the same as an expectation score measured in 2000. It is not clear whether the fact that expectations may change over time, has been considered in the literature. It is logical to conclude that customer expectations, as with many other things, change over time, hence expectations are dynamic in nature as customers can learn from experiences (Buttle, 1996). Something that one expected 20 years ago may be considered as a given nowadays. For example, not receiving a monthly bank statement 20 years ago could have been forgiven due to lack of technology efficiency at the time, but nowadays a customer would, most probably, not even list such an expectation since he/she would consider it as a given. Such an expectation would be replaced in the mind of consumers with a different expectation, for example consumers could expect to have the availability to access and print a statement of their account online or from an ATM.

Therefore, even though one could consider that the logic of the SERVQUAL instrument is sound and holds even for today, one should, however, carefully evaluate its factors and proceed to any necessary changes to accommodate current consumer expectations. Chowdhary and Prakash (2005) supported the notion that service quality is dynamic in that consumers' expectations change over time as influenced by competitive forces, word-of-mouth, external communication by the service provider and the imagination of the consumer. Finally, Gronroos (2000) identified three major problems with expectations' measurement:

(i) Expectations can be measured either after the service experience or at the same time as the service takes place. It is clear that in any of the two situations what is measured is not expectations but something which includes some experience.

(ii) The problem with measuring expectations before the service experience creates a different problem since until the time that performance is measured expectations will change again by customers' experiences of the service encounter. Therefore, the comparison would be between these altered expectations and not with the initial expectations, so, there is no point in measuring expectations prior to the service experience.

(iii) Experiences refer to perceptions of a real situation, a service encounter for example. When respondents are asked to rate these perceptions they include in their evaluations prior expectations, which results in measuring expectations twice, since, as explained, they are included in the assessment of perceptions. The only case where expectations are measured once is, perhaps, when customers use the service for the first time, hence, they do not have any prior expectations of the service. They may have expectations created by company communications, such as advertising, or from word-of-mouth but not from prior experience.

(c) McAlexander et al. (1994) conducted a study in a health care setting and concluded that patients had high expectations on all SERVQUAL dimensions, which of course challenges the instrument's measurement ability. The authors contemplated that one of the reasons might be the very high quality expectations of consumers as formed by how society views professional service providers. Whatever the reason, the differences in consumers' expectations with regard to who the service provider is, negatively influences the diagnostic ability of the expectations side of SERVQUAL and provides another reason why a perceptions-only scale might work better in accurately capturing and measuring service quality.

(d) Four or five items in each dimension cannot capture the variability within each dimension as suggested by Buttle (1996). This means that to have an objective measurement score for each dimension and, hence, for the overall service quality, the instrument needs to obtain information from additional factors as well. Parasuraman et al. (1991a, p.445) accepted that some specific items that "should be similar in form to the existing SERVQUAL items" could be added to complement the instrument.

Consumers' assessments of service quality may vary from one service encounter to another. The moments-of-truth (where the customer rates the service level experienced) according to Buttle (1996) are different at each different service encounter. For example, the consumer might feel angry for other reasons and express negative feelings during the evaluation moment. Bolton and Drew (1991, p.379) explained in their study how customers join together their perceptions to form an overall evaluation of the service. It was shown that "a customer evaluates the overall quality of a telephone service by forming intermediate perceptions of the performance levels of component services and then weighting these transitional assessments." This supports the notion that customers' overall service quality evaluation is affected and computed by part evaluations of performance levels that occur at different service encounters.

(e) With reference to a study that examined the methodology in a health care facility, Smith (1995) concluded that the length of the questionnaire and the requirement to have two administrations of the instrument, one for the expectations scale and the other for the perceptions scale, increases the possibility of respondent confusion, which might influence the quality of the data collected. Arguments of boredom and confusion caused by the two administrations of the instrument were also supported by Buttle (1996).

(f) Tan and Pawitra, (2001) argued that the estimation of customer perception might already include perception minus the expectation in the mental process of the consumer. To state it differently, respondents might already have mentally compared their perceptions to their expectations when they were asked to rate their perceptions of an organization. Moreover, SERVQUAL applications in different industries revealed that the five dimensions might not cover aspects of customer service present in all service encounters. For example, service emphases are different when evaluating 'product' services, eg. services received at a department store when shopping for a product, than those customers expect when evaluating 'pure' services, eg. services received from an insurance company, in the sense that what customers receive from an insurance company is a contract promising to pay for customers' claims.

(g) The application of SERVQUAL has also produced mixed findings. For example, in health care settings the tangibles dimension influences the perception of customers. Cleanliness, updated equipment, technology, doctors, polite and knowledgeable nurses all affect customers' perceptions about the quality of the service. The tangibles create a positive image of the hospital in the minds of customers, thus patients can trust and rely on the specific health care facility. A favourable and well-known image has an impact on customer perceptions of the level of service quality experienced. If a service provider has a positive image, minor mistakes will be forgiven. However, if mistakes often occur, its image will be damaged (Kang and James, 2004). Yet, tangibles cannot be reported for

adequate reliability since the results from treatments are difficult for customers to evaluate. On the other hand, in hotels where the measurement is carried out while the service is delivered, the tangibles are of great importance for customers.

(h) Another issue is the concept of time, that is, when the evaluation occurs. Process quality is evaluated, in the mind of the consumer, while the service is being performed. According to Carman (1990), all respondent statements were after the service experience. Respondents were asked what they expected in one questionnaire and then asked what they perceived based on what they had experienced in the past, therefore there was not a before the service experience and an after the service encounter evaluation of service quality. The evaluation of outcome quality occurs after the service encounter and focuses on 'what' service is delivered (Parasuraman et al., 1985). One could ask 'what does the word –after- mean?' An hour, a day, a week, a month? The word 'after' presupposes a reasonable time interval that would allow the extraction of conclusions. In a hotel setting, quality is assessed while the service is delivered. In contrast, a health care facility or a car service centre may be equipped with updated technology and staffed with professional and courteous employees, leading to evaluations of high quality service. However, at the end, after some time passes, one will be in a position, based on the outcome, to assess the technical side of service quality as well.

(i) As stated by Brown et al. (1993), the calculation of a difference score (P-E) in the SERVQUAL instrument can lead to several psychometric problems. Many times gap scores exhibit poor reliability, because any positive correlation between the component scores satisfies the reliability of the resulting difference score. Moreover, service quality is the difference between expectations and performance. As performance exceeds expectations, quality increases and as performance decreases relative to expectations, quality decreases (Parasuraman et al., 1985). Consequently, in spite of the performance being highly rated, the quality is diminished if performance meets expectations. According to Asubonteng et al. (1996), customers evaluate performance and expectations on a scale of 7. If the

performance score was 6 and the expectations score was also 6, the bank would have met expectations, that is, high service quality, for a quality score equal to 0. To add to the above, the expected or desired level of service is almost always higher than the perceived level of actual service (Brown et al., 1993; Smith, 1995). Thus, this limitation in the range of the difference score results in a smaller variance in SERVQUAL scores for those that rate the expected level of service higher than the perceived level of service from those that rate it lower.

(j) Martinez and Martinez (2010), maintain that the overall score for service quality is totally dependent on the proposed dimensions, which, in turn, establish the variation of the service quality construct. The authors pose the question of what score should researchers and practitioners consider; the score from each reflective item (quality indicators) or the score that derives from the dimensions? They claim that these scores might be different and that the score resulting from each reflective item should be used.

Table 3.3: Criticisms of SERVQUAL

Theoretical Problems	Major Critics	Operational Problems	Major Critics
Use of a single scale	- Administration of a performance-only instrument may be an improved means of measuring service quality (SERVPERF) and it explains more variance than disconfirmation models (Cronin & Taylor, 1992; Haksik et al., 2000; Luk & Layton 2004; Landrum & Prybutok, 2004)	*Ambiguity about expectations*	- The word 'expectation' in customers' minds is unclear. Teas (1993b) identified six different interpretations of the word that respondents may be using when called to assess their expectations with regards to service quality. - Differences in customers' expectations with regard to who the service provider is, negatively influences the diagnostic ability of the expectation side of SERVQUAL (McAlexander et al., 1994) - Previous experience may result in low expectations which, if met in a subsequent encounter will result in a satisfactory level of service quality (Buttle, 1996) - Evaluations of expectations includes assessment of prior expectations which results in measuring expectations twice as well as assessment of some experience, which means that what is measured includes some experience as well (Gronroos, 2000).
Process Orientation	SERVQUAL focuses more on the process of service delivery and less with the outcomes of the service encounter (Gronroos, 1990; Buttle, 1996) The outcome of the service is quite important (Luk & Layton, 2004) The outcome of the service is a principal determinant of service quality (Caro and Garcia, 2007)	*Timing of administrations*	- Process quality is evaluated in the mind of the consumers while the service is being performed, therefore there is not a before the service experience and an after the service encounter evaluation as they both occur after the service experience (Carman, 1990)
		Variability of dimensions	- Four or five items in each dimension cannot capture the variability within each dimension (Buttle, 1996)

Theoretical Problems	Major Critics	Operational Problems	Major Critics
Gap model	- Use of gap scores does not provide any additional contribution (Babakus & Boller, 1992) - Use of high expectations scores renders the use of expectations inefficient (Babakus & Boller, 1992). The expected or desired level of service is almost always higher than the perceived level of actual service (Brown et al., 1993; Smith, 1995) - Problematic meaning of Gap (P-E) scores. Higher P-E scores may not always mean higher levels of perceived service quality (Teas, 1993a;1993b;1994) - The calculation of a difference score (P-E) in the SERVQUAL instrument can lead to several psychometric problems. Many times gap scores exhibit poor reliability because any positive correlation between the component scores satisfies the reliability of the resulting difference score. - Use of two instruments produces a third. There is little evidence that customers assess service quality in terms of P-E (Buttle, 1996) - The nature of expectations is dynamic over time and the use of the same items fails to evaluate the important expectations as they change (Buttle, 1996; Chowdhary & Prakash, 2005) - The assessment of customer perceptions might already include perception minus expectation in the mental process of the consumer (Tan & Pawitra, 2001) - Higher gap scores do not mean that the specific quality indicator is more important than others (Page & Spreng, 2002)	*Service encounter*	Customers' overall service quality evaluation is affected and computed through part evaluations of performance levels that occur at different service encounters (Bolton & Drew, 1991). - The moments of truth (where the customer rates the service level experienced) are different at each different service encounter which influences the evaluation moment (Buttle, 1996).
		Two administrations	Length of questionnaire and the requirement of two administrations increase the possibility of respondent confusion and boredom, which may influence the quality of the data collected (Smith, 1995; Buttle, 1996)

Theoretical Problems	Major Critics	Operational Problems	Major Critics
Dimensionality and quality indicators	- The number of dimensions and their composition that is the items making-up each dimension are not universal and may be different across different service industries (Carman, 1990; Cronin & Taylor, 1992; Babakus & Boller, 1992; Brown et al., 1993; Gagliano-Bishop & Hathcote, 1994; Blanchard & Galloway, 1994; Buttle, 1996; Sureschandar, 2001; Jabnoun & Al-Tamini, 2003; Luk & Layton, 2004; Landrum & Prybutok, 2003; Markovic, 2005; Caro & Garcia, 2007; Ladhari, 2008; Nadiri et al, 2009a;b) - The development of service quality indicators may be country and/or culture specific and may be influenced by national differences (Sultan & Simpson, 2000; Martinez & Martinez, 2010; Chand 2010) - The order of importance may change based on the service encounter (Carman, 1990) - Importance of dimensions changes according to the industry under evaluation, i.e. tangibles more important in health care settings since they create a positive image for the hospital in the minds of consumers (Kang & James, 2004)	*Variance extracted*	- The limitation in the range of difference scores results in a smaller variance in SERVQUAL scores for those that rate the expected level of service higher than the perceived level of service from those that rate it lower (Brown et al., 1993; Smith, 1995) - The overall score for service quality is totally dependent on the proposed dimensions, which, in turn establish the variation of the service quality construct. The scores from each quality indicator might be different than the scores derived from the dimensions. What score should researchers and practitioners consider? (Martinez & Martinez, 2010)

3.3.2.3.3 Implications

It is clear from the debate among several leading authors and the repetitive testing of the SERVQUAL instrument in several different settings, that the applicability of the instrument as a generic measurement tool, as claimed by Parasuraman et al. (1988), cannot be accepted as such. The fact that Parasuraman et al. (1991a), after receiving a great deal of criticism about their model, decided to refine and reassess the scales used to measure service quality is proof that the instrument as initially conceptualised was not serving the purposes stated by its authors. It can also be inferred that the redesign of the initial scale, which was conceptualised with ten dimensions in 1985 to an instrument consisting of five dimensions in 1988, further reassessment and redesign in 1991, as stated above, and further research by the same authors (Parasuraman et al,, 1993; 1994a; 1994b) confirmed the initial criticisms and suggested that the authors took them (perhaps most, if not all) into consideration in their following studies.

The debates about the applicability of the instrument and the stated criticisms developed out of the replication studies to test the instrument have contributed to the growth of a dialogue which might help in better understanding the factors and dimensional construct of service quality that will lead to the development of improved tools that may be better suited to its measurement.

One of the major criticisms of the instrument deals with its 'universal' nature and if this holds true or not. It became obvious from the literature that this is not the case, since the vast majority of the replication studies either found that factors or dimensions needed to be added or subtracted from the initial model and/or modified to fit the industry setting in which it was used, which answers the question about the generic or universal nature of the instrument. Therefore, practitioners, mostly managers responsible for observing the quality function of their organizations, need to take into serious consideration all of the above findings and proceed to the necessary modifications, if needed, in order to make the instrument

as effective as possible to generate reliable results that could be used to draw sound and valid conclusions about the service quality levels of their organization and avoid wasting valuable resources.

It would seem immature, bearing in mind the debate and recent criticisms developed about the model, to adapt it as is in our endeavour to measure accurately service quality in the banking industry of Cyprus. Therefore, as suggested in several studies and by many leading authors, the SERVQUAL model needs to be modified in order to suit the specific characteristics of the industry under study in different countries. Hence, since accepting several of the criticisms, the author has decided to apply the SERVPERF model to measure the service quality of Cypriot banks, mainly because the Perceptions – Expectations theory has several problems, thus another study confirming these problems would not provide a significant contribution to the field. Another important consideration about the use of SERVPERF that may also address any considerations or future criticisms about the diagnostic ability of SERVPERF as compared to that of SERVQUAL, is that it can also be used as a diagnostic tool if used to measure service quality in specific time periods, as suggested by Cronin and Taylor (1992).

3.4 Assessment of Service Quality

As stated and discussed several times in this study, one of the major problems with services comes from the intangibility characteristic. This creates several problems and challenges to service organizations since it makes it very difficult to conceptualize, set and communicate service standards throughout their businesses. This deficiency creates, in turn, lack of measurement ability, which of course does not allow companies to control their service offerings, take any corrective actions they deem necessary and finally improve the service being offered. Hence, it is obvious that the challenge to develop better and more reliable tools that measure service quality is of utmost importance for researchers and practitioners. How important will be discussed in the subsequent section.

3.4.1 The Importance of Service Quality Measurement

Over the last 20 years a number of authors and researchers have identified the significance of high quality of service for all organizations. In order to attain high levels of service quality, businesses must first understand what it is, identify the factors and dimensions that form the construct, conceptualize and operationalize models to measure it so that they will be in a position to find ways to improve perceived service quality. All of the above have been tasks that several authors have dealt with over time, however, at the centre of all research has been the conceptualization and operationalization of models to measure service quality, which shows the importance of service quality measurement for both academic and business purposes.

Bowen and Hedges (1993) hold that, if an organization (a bank in their case) is in a position to detect customers' needs, then it will be able to develop tools that could assess consumers' perceptions of service quality provided by the company. They go on to state: "Consequently, achieving superior service-delivery quality is likely to be critical for retail bankers… increased service quality is likely to produce increased customer retention… Clearly, then, superior levels of service quality can mean gains in both market share and shareholder value" (p.21). Their study includes an analysis of how service quality can be measured.

If customers' expectations are not met then most probably they will start looking for other organizations offering similar services that will satisfy their needs and defect. Homlund and Kock (1996) believed that if customers are to stay with the company in the long-term, the service quality they experience must at least meet their expectations. Since, as several researchers have noted, efficient and long-lasting relationships with customers result in higher profits, it is of outmost importance to keep current customers and build on the existing relationship than attracting new ones. Barnes and Cumby (1993) and Liswood (1989), cited in Homlund and Kock (1996, p.289), outline three rules of thumb from service management that can help a firm to keep its customers: "(a) it costs five times more to attract a

new customer than to keep an existing one, (b) it takes 12 positive service experiences to overcome a negative one, and (c) 25% to 50% of the operating expenses of a company can be attributed to poor service quality, and specifically to the cost of not doing it right the first time." Measurement of service quality can detect customer perceptions about service quality that will help the company to take corrective actions and manage to maintain existing relationships with its customers.

The conceptual model developed by Shemwell et al. (1998) to examine how service quality and satisfaction are related to relationship-oriented outcomes in health-care facilities in Turkey illustrated how enhancements in service quality could lead to higher levels of customer satisfaction, which would lead to other desirable results, such as minimization of complaints, an emotional bonding between customer and service provider and a higher probability of enhancing the existing customer-service provider relationship in the future. All hail the importance of service quality measurement.

Finally, Kim et al. (2009), in their study examining the applicability of a modified DINESERV instrument for measuring service quality and assessing the relationships between service quality, customer satisfaction, and positive word-of-mouth recommendations in restaurants in Taiwan and in the US, suggested that service quality had positive effects on customer satisfaction, which, in turn, had a positive effect on word-of-mouth recommendations.

3.4.2 Measuring Both Outcome and Process

Gronroos (2000) is correct to believe that the consumption of a service is more of process consumption than outcome consumption. As stated earlier, one of the differences between physical products and services is that a product is mainly judged on its performance and if it satisfies customer needs or not. The consumer's verdict is therefore based on the outcome of using a product, not from the process of manufacturing or purchasing the product as such. In contrast, the consumer evaluates the service while receiving it. As explained before, the customer is not only present during the service process and

delivery but many times takes part in the process as well. The service process will lead to a future outcome; however, the process itself is a major part of the service experience as it takes on a great value in consumers' minds when they are to evaluate a service offering. It is also worthwhile to note that the outcome of a service experience may come after some period of time has passed since receiving the service.

Thus, the service process itself is more important for the customer until the phase of the outcome is reached, which will also be a critical evaluating factor in consumers' minds. Take for example, the case of car insurance. All people driving a vehicle need to have motor insurance. During the service process, they meet the insurance sales agent, they interact with him/her by asking questions and solving their inquiries, they sign the necessary documents, they pay for it and after a couple of weeks some insurance documents arrive, verifying that their vehicle is insured. What is the outcome of this process? Is it the insurance documents finally received? In the author's opinion, the final outcome of the service encounter will come if and when an accident occurs and the consumer needs to file a claim to the insurance company to recover damages. If, how much and when the company pays is the outcome. Until that moment the customer believes that, if needed, the insurance company will cover all damages incurred. Of course, when filing a claim, a new service encounter and process begin between the insurance company and the customer.

Gronroos (2000) explains that, due to the inseparability characteristic, the service process cannot be separated from service consumption and thus he concludes that service consumption is basically process consumption. He also explains that it is extremely difficult for the service provider to separate the outcome of the service offering from those of competitors; hence the differentiating factor is the service process. To support his opinion the author gave several examples, the most important of which were the withdrawal of a sum of money from a checking account irrespective of the customer's bank and flying from one place to another taking the passenger to the destination irrespective of the airline

used. The author concludes that, in spite of the outcome of the services mentioned before, in every instance the customer participates in the process and then comes into contact with the firm, its employees, facilities, resources.

Therefore, since it is difficult for the consumer to evaluate the outcome, he/she evaluates the service process, which is easier to assess due to the closer interaction that takes place during the service encounter. Although the researcher agrees with these conclusions and ideas, he believes that, as discussed in the preceding paragraph, the outcome of the service plays a major role during service quality assessment, especially in cases where the outcome can be objectively measured or understood by the customer. For example, the outcome of a claim on car insurance, or the taste and quality of food at a restaurant. In such cases, the outcome will be the differentiating factor in consumers' minds because, if the car insurance claim is not paid, the customer will not take insurance with the specific provider nor will he/she visit the same restaurant again if the quality of the food is not satisfactory. Caro and Garcia, (2007, p.68), hold that the outcome of the service is a principal determinant of service quality as customers place high importance on the results of the service they experienced.

Another variable that might influence customer evaluations is the time elapsed from when the service was purchased until the service is consumed or until the final outcome is evaluated. The example of the car insurance claim is important in helping to understand this concept. All of the elements in the service process that occur during the service encounters between the service provider and the customer will influence the customer's perception of the service in the long-term. The customer will keep buying the service as long as he/she positively evaluates the service process that takes place in each encounter. However, the dominant factor for future purchase of the car insurance will be the satisfaction of the customer in the case of a claim.

The researcher agrees with Gronroos (2000) that the service process is important for the long term retention of the customer. However, the outcome of the service experience will determine the longetivity of the service provider-service customer relationship. In conclusion, the researcher's views should not be considered as supportive of the importance of either the service process over the outcome of the service or vice versa. Rather, that both of them are important in measuring service quality and should be considered in models developed for that purpose.

3.4.3 Current Methods of Measuring Service Quality in the Banking Industry

Since the SERVQUAL instrument was developed by Parasuraman et al. (1985; 1988), it has attracted the interest of several researchers all over the world, mainly because of the claims of its authors that it is an instrument of a generic nature and in its simplicity could thus be easily adapted to measure service quality in different service settings and industries. Yet, a number of researchers have developed other methods –sometimes based on SERVQUAL, others completely innovative- to evaluate the level of service quality in the minds of consumers.

(i) A study conducted in Canada by Bahia and Nantel (2000) aimed at developing an instrument, called Banking Service Quality (BSQ), to measure perceived service quality in banks. The instrument, after being empirically tested, consisted of 31 factors which loaded onto six dimensions, namely, effectiveness and assurance, access, price, tangibles, service portfolio and reliability. According to the authors, the model was developed based on opinions from experts and from published work.

(ii) The same model was applied to measure service quality of banks in Greece by Spathis et al. (2004, p.99). They also aimed to examine if gender differences played a role in customers' perceptions of service quality. Their results suggested that gender influenced service quality perceptions, and specifically it was found that "male clients of Greek banks have a more positive perception of the quality of service they receive than do women clients."

(iii) Guo et al., (2008) constructed a measurement instrument to measure service quality in the Chinese corporate banking market. Their questionnaire used a similar design to the SERVQUAL instrument and was composed of 31 items, 15 of which were retained from the replication study of the original 22 SERVQUAL items, 16 new items resulting from in-depth interviews with financial managers. The resulting instrument (named Chinese Banking Service Quality – CBSQ) was composed of 20 items that loaded onto four dimensions labelled reliability, human capital, communication, and technology. However, the factor analysis procedure used by Guo et al. (2008), demonstrated that the overall model was a nested model consisting of two parts, the four dimensional construct explained before and a two higher-order construct composed of functional quality and technical quality. The authors suggested that their model could be used to evaluate service quality as described by the four dimensions and that it could be used over time to follow customer perceptions of service quality. Finally, they suggested that CBSQ could be used to segment the bank's corporate customers based on variables such as company size, geographic location and others, to give the opportunity to the bank to assess performance in each of these segments.

(iv) Karatepe et al. (2005) attempted to define the service quality construct of retail banks in North Cyprus. Their study resulted in a twenty-item scale making up four dimensions (service environment composed of four items, interaction quality made up of seven items, empathy with five items and reliability included four items). Their findings suggested that the most important dimension was interaction quality, adding another challenge to Parasuraman et al's. (1988), claim that reliability is the most important dimension of the service quality construct. The authors suggested that their model could be used by bank managers to measure service quality delivered to customers and to identify improvement needs. In addition, the model could help bank managers determine the importance of the service quality dimensions and predict customer satisfaction and customer loyalty. Branch performance over time could also be measured and monitored using the service quality model they suggest.

However, it is the opinion of the author that some items used in Karatepe et al.'s study assess the same issue and should either be combined in one statement or use only one of the two statements. For example, two items in their interaction quality dimension are quite similar: "Employees of this bank are polite to customers" and "Employees of this bank serve customers in a good manner". The use of similar items possibly influenced the face validity of the instrument resulting from their study. The same can be argued about the use of the following statement: "The bank informs customers about its financial operations accurately". The author believes that such a statement, at least in the way it is worded, does not belong to a construct aiming to identify and measure customer perceptions of service quality; rather, it is something that should influence the opinions of investors and financial analysts.

(v) Data Envelopment Analysis is another instrument used for performance assessment. The study of Soteriou and Stavrinides (2000, p.246) was applied to measure bank branch performance in Cyprus. However, as the authors noted, "most DEA models which have been developed for bank branch performance assessment do not include service quality as an output", even though they recognized the importance of service quality measurement in service settings, since it might result in differentiating the specific company in the eyes of consumers, and would allow it to gain a competitive advantage, customer loyalty and ultimately higher profitability over the competition. The proposed DEA model, as the authors suggested, might be used to provide guidance to bank branches in order to improve their resource allocation and performance to generate higher levels of quality of service.

3.5 Summary

The literature review is a vital part of any study as it provides the basic issues that characterize the research question and the path to be followed during the rest of the project. In this section services have been defined, discussed and classified. Further, service quality has been defined, which is the central theme of this study and two major schools on the subject examined in more detail in order to understand better the service quality construct. The issue of expectations and their role in service

quality evaluation has been discussed in depth. The issue of service quality measurement has also been analysed and its importance explained. The application of SERVQUAL in banking has been examined, critically analyzed and the criticisms drawn against the model evaluated. This chapter concludes by outlining the potential contributions of the study to the area of service quality.

3.5.1 The Potential Contributions

This study aims at expanding knowledge in the area of service quality by making original and empirical contributions and practically developing a reliable and valid service quality measurement instrument in the banking context of Cyprus in order to help researchers and practitioners gain insight into how customers evaluate perceived service quality in the Cypriot banking sector.

Cypriot banks do not use any specific instrument that measures service quality, such as SERVQUAL or SERVPERF. Rather, they use data collected by surveys conducted from time to time by external research firms and rely on other techniques, such as suggestion boxes, the "secret shopper" technique, customer complaints and in-house surveys conducted by their own marketing departments. Therefore, the development of a specific model to help practitioners understand how improvements in service quality will help them develop and sustain a competitive advantage and will provide a valid and reliable measure of service quality for the banking industry in Cyprus is intended.

The literature review has shown that the application of the SERVQUAL instrument in various different service settings does not support the notions of its founders that it is of generic nature and as such can be applied with minor modifications to other service sectors. Rather, the instrument needs careful alteration when applied to other service sectors. It has also been illustrated that the application of the instrument in other countries might also affect the variables and dimensions that compose its construct. The lack of empirical research on the topic of service quality measurement in the banking sector of Cyprus confirms the importance of the study and its contribution to the field of service quality as it will

help advance the knowledge of the problem in the literature and validate the need for further modification when the instrument is applied, not only in diverse service settings but also in other countries as well. It is expected that this study will develop a modified service quality construct and a unique instrument in that it will provide an accurate measure of service quality perceptions in the Cypriot banking sector, therefore expanding knowledge on the issue and contributing empirical evidence to the use of the model in a new country and a different service setting.

Overall, this research is expected to help the management and employees of banks to better analyse and evaluate the factors that affect service quality and accordingly initiate the appropriate improvements so as to offer better service. The study will also be beneficial to customers, stockholders, bank officials and to the academic community in general since it will develop and empirically apply an approach for the evaluation of the service quality offered by banks in Cyprus.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

The hypotheses stated in this study are based on the research questions, which were outlined in chapter 1 and are categorised in such a way as to reflect the objectives of this thesis. The number of dimensions of service quality in the context of the banking industry in Cyprus is discussed in the first section, while the reliability and the validity of the instrument are examined in the second and third sections respectively.

4.2 Dimensional structure

As discussed in the literature review, the SERVQUAL authors suggested that the instrument is composed of five generic dimensions that are applicable to all service settings. However, as was also discussed, other researchers have reported conflicting results. Specifically Buttle (1996, p.15) stated, "Critics have raised a number of significant and related questions about the dimensionality of the SERVQUAL scale. The most serious are concerned with the number of dimensions and their stability from context to context." Additionally, with regard to the instrument's number of dimensions, Buttle (1996, p.16) noted, "When the SERVQUAL instrument has been employed in modified form, up to nine distinct dimensions of SERVQUAL have been revealed, the number varying according to the service sector under investigation. One study even produced a single-factor solution." Finally, Babakus and Boller (1992) commented that the number of dimensions depended on the specific industry under evaluation and as such it cannot be the same for all services and the dimensions are not generic. The hypothesis to test the dimensional structure of the model is the following:

- **Hypothesis H_1**: The dimensional structure of service quality identified in the context of the banking industry in Cyprus does not match the dimensional structure found in the original SERVQUAL model.

4.2.1 Reliability

As Nunnally (1978) suggested, reliability should be examined whenever new measures are developed. The reliability of an instrument examines the extent to which the process of measurement is free from random error and is related to the consistency, accuracy and predictability of the research findings (Kinnear and Taylor, 1996). The consistency of the instrument indicates how well the various items of a measurement instrument complement each other when appraising different aspects of the same instrument (Litwin, 1995). The most widely used method to evaluate the internal consistency of a measurement scale is Cronbach alpha (Peter, 1981). Churchill (1979) suggested that Cronbach alpha should be the first measure one should calculate to determine the quality of the instrument. Furthermore, Zikmund (1996) advocated it as the basic tool to determine the internal consistency of an instrument. Therefore, Cronbach Alpha was used in this study to test the reliability of the measurement instrument.

In the original SERVQUAL study and other subsequent studies, the Cronbach alpha coefficient has been over 0.70 (Asubonteng et al., 1996), which is the minimum accepted level in social science studies (Nunnally, 1978).

4.2.2 Validity

Validity examines if we are measuring what we think we are measuring and is defined as the extent to which the scale fully captures all aspects of the model being studied (Parasuraman, 1986). There are three different types of validity that need to be examined:

- Content validity
- Predictive validity
- Construct validity

Litwin (1995) explains that *content validity* is a subjective measure of how appropriate a set of items seem to those who have knowledge of the issue under investigation. Since it is subjective it means that it cannot be quantified with statistics, hence the statistical analysis of validity covers predictive and construct validity.

4.2.2.1 Predictive validity

McDaniel and Gates (1993) claimed that predictive validity measured the extent to which a current item on a scale could predict the level of a dependent variable in the future. In other words, it examines if an item which measures service quality now will measure the same phenomenon at a future period and, consequently, help in the improvement of the service quality offered to bank customers.

4.2.2.2 Construct validity

The ability of a measure to provide empirical evidence that will be consistent with a theory under investigation is known as construct validity (Zikmund, 1996). It supposes that the researcher understands the theory behind the measurement. It is expected that high reliabilities are necessary to support a scale's construct validity (Parasuraman, 1986). Construct validity contains the assessment of convergent and discriminant validity.

4.2.2.2.1 Convergent validity

Kinnear and Taylor (1996) explained how convergent validity supports the measurement of a model with independent measurement techniques along with demonstrating a higher correlation among the measures. Moreover, Peter (1981) explains that the convergent validity of a construct is proven when the construct which is used to measure perceived service quality (in our case in the Cyprus banking industry) is measured by two instruments and the results of these measures converge. Other researchers, such as Crompton and Love (1995) and Bahia and Nantel (2000), agree on the use of an item to measure overall service quality to regress to the quality factors in order to investigate the validity

of a service quality scale. In order to demonstrate the convergent validity of the model, it is expected that quality factors used will be positively and significantly related to overall service quality. Therefore, the relationship between the scores of the factors used to determine the service quality construct and a single item that aims to evaluate overall service quality was examined in this study. In other words, to prove convergent validity, the researcher analysed the association of the scores from the instrument to be used and respondents' answers to a general question about their perceptions of overall service quality of their bank.

4.2.2.2.2 Discriminant validity

McDaniel and Gates (1993) stated that discriminant validity necessitates a lack of, or low, correlation among different constructs. Thus, a measure should not correlate too closely with similar but distinct concepts in order to prove discriminant validity. Therefore, the measurements of perceived service quality in the Cyprus banking industry through the instrument developed in this study and a similar construct used should diverge to prove that the two constructs are independent (Peter, 1981).

Reliability and validity were tested through the following hypothesis:

- **Hypothesis H_2**: The reliability of the measurement instrument and the reliability of each dimension of the construct meets the appropriate levels of statistical significance and effectively captures the determinants of customer service quality of the Cypriot banking industry.

4.3 Research Design

Research is defined as a systematic, careful enquiry or examination to discover new information or relationships and expand/verify existing knowledge for some specified purpose (Bennet, 1991, cited in Ticehurst and Veal, 2000). The research process can be studied for many reasons; in businesses it is an essential tool for management. Areas where research can be helpful are in: Strategic Planning, General Management, Policy Development, Understanding Research and Consultancy Reports.

Business research is undertaken by a wide variety of individuals and organizations (academics, students, government and commercial organizations, consultants, managers).

The research process can be divided into eight main phases (Ticehurst and Veal, 2000, p.28):

- Select topic
- Review literature
- Devise conceptual framework
- Decide research questions
- List information needed
- Decide research strategy
- Conduct research
- Report findings

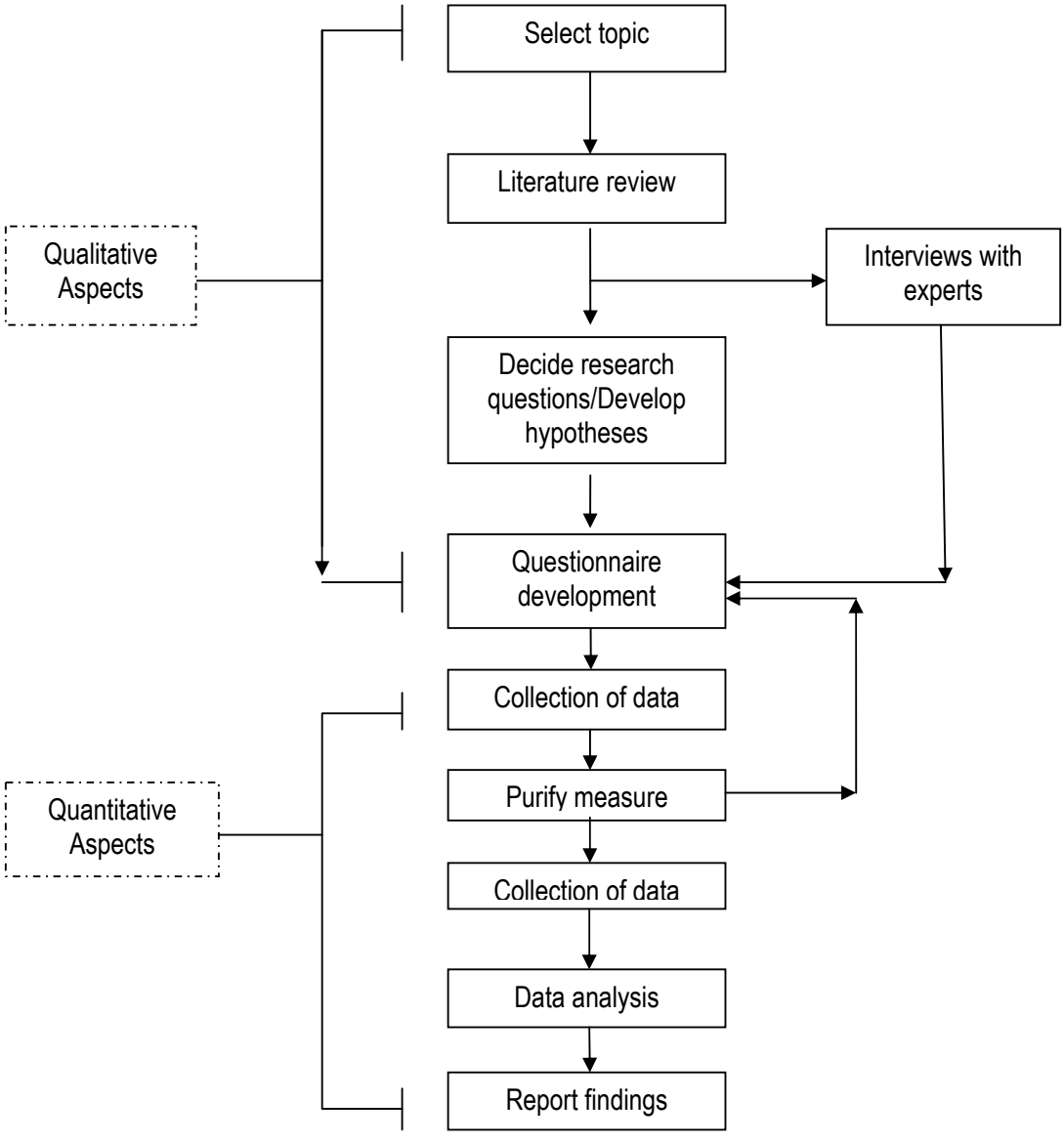
In the research process the first four elements do not happen in a linear way as described above. They occur in a circular way in order to understand the information and take correct decisions to continue with the fifth element. For the purposes of this study, the researcher first collected secondary data. The literature was gathered using online libraries, revising articles, visiting several libraries and collecting books written specifically on service quality. This helped to understand what is meant by service quality, the different ways to measure it and also the difficulties faced in measuring it due to its intangible nature. However, the use of a survey was needed to scientifically support or reject the hypotheses which were based on the relevant literature review.

Survey refers to a method of collecting data that utilizes questionnaires or interview techniques for recording the verbal behaviour of respondents. It is an effective tool to gather opinions, attitudes and descriptions as well as for addressing cause and effect relationships (Ghauri and Gronhaug, 2002).

Before conducting the survey the researcher evaluated qualitative and quantitative methods of research. Whether a researcher should use qualitative or quantitative methods in conducting a piece of

research is an issue that must be decided on the basis of the research itself. Each study is unique, even if the same problem or hypotheses are to be tested, and this is because the people, their perspectives and approaches change each time. Both qualitative and quantitative research methods can provide richness of information collected, thus a combination of the two is usually ideal. Quantitative methods dominate this research since the study focused on the use of a perceptions-only instrument to measure service quality in the banking sector; however, a qualitative method (specifically, interviews) was also used in order to have an overall view of the methods banks in Cyprus use to measure and improve service quality in the sector. A diagram of the research process followed in this thesis is presented below in Figure 4.1

Figure 4.1: The research process of the thesis



4.3.1 Qualitative methods

Qualitative methods are a very important tool in data collection; they are a way of understanding and interpreting human behaviour in different circumstances since they are about "how people attach meaning and what meanings they attach are the bases of their behaviour" (Burns, 2000, p.388). Through qualitative research it is possible to identify the patterns that lead to certain behaviour since it is a more in-depth approach to data collection. Qualitative methods aim to understand individual definitions, descriptions and meanings of events (p.388). Qualitative research helped to enrich the characteristics that were relevant to measure service quality in the banking sector in Cyprus and were used to gather the opinions of bank customers when they were asked to evaluate the quality of their experience. The literature review and interviews with bank executives were helpful in gathering the necessary background information. These formed the basis on which a formal questionnaire was structured to collect and analyse quantitatively the service quality construct as perceived by bank customers. The data collected helped identify the current perceptions of bank customers with regard to their service quality experiences in a bank branch in Cyprus and to investigate the factor structure of the service quality model in the Cypriot banking context.

The principal objective of the researcher was to answer the specific research questions as set out in section 1.2 in chapter 1 through empirical testing of the hypotheses set out in that same section using acceptable quantitative approaches.

In this study, the qualitative method used was semi-structured interviews with bank executives in charge of quality enhancement and customer satisfaction in their organizations. Interviews were also used as a way of enriching the existing knowledge around the topic of service quality in the local banking sector. The aim was to identify the views of specialists to form a clearer picture of the issues germane to the problem of measuring and improving service quality in the banking sector.

4.3.1.1 Interviews

"An *interview* is a verbal interchange, often face to face, in which an interviewer tries to elicit information, beliefs or opinions from another person", (Burns, 2000, p. 423). Interviews are usually categorized into: i) unstructured (open-ended), ii) semi-structured and iii) structured. In this study the researcher used a *semi-structured* type of interview. This type is often used in survey interviews, group interviews and in-depth interviews. A semi-structured interview is usually conducted with the aid of an interview guide which is used to control the conversation in order to remain focused on the issues to be raised. When a totally unstructured interview is conducted it is very easy to be carried away and lose the essence of the whole process. However, semi-structured interviews allow for flexibility in a controlled environment, giving the opportunity to obtain a valid response from the respondent's perception of reality (p.424). For the purposes of this study, it was important to allow for this flexibility to manage and gather as much information as possible but also to see what an expert had to say around the topic of service quality so as to obtain a more precise view of the practical aspects of it. During the interviews, open-ended questions were asked. This meant that interviewees would not be given any restricting limits in which to answer the questions (p.572), being able to expand as much as they believed to be appropriate. This allowed the asking for further details if required and expansion of the discussion based on the information provided. A number of advantages and disadvantages of interviews have been identified by Burns (2000) and some are interesting to note:

Advantages:

- Greater flexibility both for the interviewer and the interviewee
- High response rate
- Face to face interaction allows the building of rapport and increases motivation
- Responses are immediate and complete
- The sequence of the items can be controlled by the interviewee

Disadvantages:

- Time consuming and expensive
- Limited number of respondents
- Requires good interpersonal skills
- The interviewer's presence can cause an effect on the results.

The actual interviews with bank experts and specialists in service quality measurement constituted a significant task but they contributed significantly to the development of the questionnaire used in this study.

Two interviews, one in each bank (for easy reference, named Bank X and Bank Y), were conducted approximately eight to nine months (in March 2008) prior to the administration of the quantitative survey. The interviews took place in the offices of the interviewees and lasted around 1 ½ hours each. Two persons (*one supervisor and a quality specialist*), took part in each interview therefore a total of four persons answered questions as part of these interviews and gave their suggestions and recommendations as to the design of the questionnaire that was to be used in this study. The interviews with the specialists in Bank Y were especially rewarding since they were aware of the SERVQUAL instrument and their comments and suggestions were particularly helpful in the development of the questionnaire and the modifications that were finally introduced. For reasons of confidentiality the author cannot disclose the names of the participants and their organizations. Furthermore, the author was not given access to any records or actual results of the methods used to gauge service quality in these organizations, even though these methods were discussed during the interviews. However, some material relating to these methods was given to the author for the purposes of this study, on the condition that it would not be publicized in any way (examples of such material were postal questionnaires the banks used for their customer surveys, the 'secret shoppers' technique (both the face-to-face and telephone versions) and a presentation to employees on how to achieve high service quality standards).

The researcher used open-ended questions to gather these expert opinions so as to determine the factors they believed to be important for customers and influenced their perceptions of service quality. Questions used included:

- How do you measure service quality levels at your bank?
- What methods do you use to gauge customers' perceptions of service quality?
- Which of these methods is the most reliable?
- Are you aware of the SERVQUAL instrument? If yes, do you think it could be used to measure service quality at your bank?
- How do you personally evaluate the quality of service you receive at a bank branch?
- Which do you believe are the main factors which influence customers' perceptions of service quality?
- Taking into account the context of the local banking industry, are there any specific factors that would influence the service quality construct and should be included in this research survey?

Overall, the interviews helped in deleting items that were not representative of customer perceptions of service quality in the local banking industry, in modifying or retaining items used from SERVQUAL and in inserting items that were not included in the original SERVQUAL or SERVPERF instruments but were of importance to local bank customers. The statement 'when you have a problem, the bank shows a sincere interest in solving it ' was deleted since it was decided that if customers have a problem they will address their customer service representative or account manager or banker to solve their problems and not the bank which, for the average consumer, is faceless. Items that were modified as a result of the interviews were A1, A2, A7, A9, A10 and A31. In addition, items that were added to the questionnaire were A3 and A4 since location and parking facilities and availability are quite important for a society without adequate public transportation. Item A5 was inserted to evaluate whether the available information for the banks' products and services was easily accessible. Item A23 was added

to assess whether immediate supervisors or managers were available to offer assistance to employees when requested or to help solve a problem if needed. Item A30 was added to evaluate whether employees could not only understand customers' needs but also whether they could match banks' products and services to help customers satisfy their needs. (All the items mentioned above are shown in the questionnaire which is presented in Appendix 4)

One could argue that these items are perhaps specific to the banking industry of Cyprus and this is probably a correct assumption, given that factors included in a service quality measurement instrument should take into account the specific characteristics of the industry being evaluated and the cultural characteristics of the specific society or country in which that industry operates.

Moreover, the interviews with bank experts led to the exchange of opinions on issues regarding service quality in the banking sector and helped the author to enhance his understanding of how local banks view the concept of service quality and its measurement.

Furthermore, the quality specialists of Bank Y admitted that their bank, while conducting its customer surveys, had separately tested on a limited basis, versions of both the SERVQUAL and the SERVPERF instruments. The results of their research revealed that the version based on SERVPERF seemed to be a more appropriate instrument to measure service quality in the banking sector. This finding further strengthened the author's decision to use only the perceptions part of the SERVQUAL instrument to evaluate service quality levels of banks in Cyprus.

Evidently, their results did not follow a scientific methodology and were not conducted on such a scale as to justify the use of either instrument in the local banking industry or to enable the results to be generalized to the population. The bank had conducted further research which generated 65 items that were included in the instrument used to perform their exit polls. This instrument was not given to the

author for reasons of confidentiality but throughout the discussion several 'hints' or quality indicators were discussed and helped in the final determination as to which factors would be finally included in the instrument developed for this study. The bank's instrument was aimed at the bank's customers and the items used were designed to satisfy the service quality aims of the Bank. However, in the author's view, an exit poll type questionnaire consisting of 65 items would most probably cause confusion for the respondents and boredom during the response process.

4.3.2 Quantitative methods

Quantitative methods are the tools used for data collection on a larger scale. The researcher decided to collect random survey data from bank customers in the city of Nicosia, the capital city of Cyprus, in which the majority of the inhabitants live. The interviewer was located outside bank branches and collected data from customers exiting their bank branch using a structured questionnaire. The quantitative aspect of this survey occupies a significant part of the study because it serves as a way to prove or reject the stated hypotheses. A survey provides a quantitative or numeric description of some fraction of the population–the *sample*–through which the data collection process of asking questions of people takes place (Fowler, 1988). This data collection in turn enables a researcher to generalize the findings from a sample of responses to a population (Creswell, 1994).

The theoretical framework for this study was based on adapting the SERVQUAL instrument to a banking context and using the guidelines proposed by the instrument's developers. Specifically, the questionnaire was extracted from the perceptions section of the SERVQUAL instrument (Parasuraman et al., 1988). A college English instructor translated the questionnaire into Greek in order for the respondents to be able to identify and clearly comprehend the questions. The researcher decided to collect around 300 questionnaires in order to reach credible conclusions. After completion of the questionnaires, the results were entered into SPSS spreadsheets that allowed data to be grouped into a manageable and understandable format. The structure of service quality for the banking industry of

Cyprus was determined during this phase. Quantitative methods, such as factor analysis and calculations of alpha coefficients, were employed to analyse the data. Additionally, during this phase, the reliability and validity of the questionnaire were examined to ensure the theoretical soundness of the instrument and the data collected.

4.3.3 Questionnaire Design

As Saunders et al., (2003) stated, a questionnaire is usually used to collect the necessary data to help achieve the research objectives of a study and works better with standardized questions rather than with open-ended ones. In other words, it is a tool to collect raw data from interviewees. The first task for the design of the questionnaire was to decide which characteristics of service quality were the most representative in bank customers' minds when they evaluate perceived service quality. This is important since these characteristics were to be included in the questionnaire, which was used to gather the opinions of customers about the level of service quality they experience. If the characteristics included had not been representative of the quality factors the customers deem to be important, data subsequently collected would not provide a true picture of the respondents' opinions and evaluations of their service quality experiences when visiting their bank branch.

The survey instrument was based on the SERVQUAL instrument and the results of the interviews with bank experts, in which they indicated the variables they considered important when they assessed the service quality offered by their banks. Other questions might be added to provide more managerial implications and to test validity. Specific factors regarding the Cyprus context were also taken into consideration during questionnaire development. Therefore, items A3 and A4 regarding parking facilities and convenient location were included because the public transportation system in Cyprus is not adequate, hence only around 10% of the population – mostly workers from third world countries – use buses, and there is no tram, trolley or metro system available. Cypriots rely on their cars to move around and therefore parking availability and convenient access to bank branches are important.

Furthermore, factors regarding the use of technological methods such as internet and phone banking were not included in the questionnaire as different evaluation criteria would have been needed and these factors were deemed to be outwith the scope of a study focusing on service. There is also no public research available indicating the percentage of the population using such methods and for which transactions, hence providing an indicator of their importance in Cyprus. However, there is a widespread belief that they are used more by corporate customers and less by retail customers.

Similarly, quality indicators regarding the use of ATMs were omitted since ATMs (usually located outside bank branches) are mainly used for cash withdrawals, which is only one of the services offered. The locating of ATMs independently of bank branches would most probably be a desirable positive development but would be difficult to implement due to union objections as current collective agreements prohibit such independent installations. Finally, even though use of technological advancements is quite important in the service delivery process in banking, it was decided not to include their evaluation since these methods are not widely used or are used mainly for a specific service. The objective of this study was after all to measure service quality perceptions at bank branch level, focusing on 'high touch' rather than 'high tech'.

Moreover, even though banks would prefer to have fewer branches and direct their customers to use more technology-based service channels, it seems that over the last few years, they have come to understand the importance of employee-customer interactions. Therefore, the current goal is to expand rather than diminish branches and offer a larger number of services, thereby taking advantage of cross selling opportunities. In fact, the number of bank branches has increased since 2006 from 434 branches at the end of 2006 (ACCB, 2007, p.11), to 444 at the end of 2007, (ACCB, 2008, p.10), 496 at the end of 2008, (ACB, 2009, p.10) and 495 at the end of 2009 (ACB, 2010, p.10). Bearing in mind the above and the findings of researchers such as Avkiran (1994), Jabnoun and Al-Tamini (2003) and Arasli

et al., (2005a; 2005b) who all supported the importance of employees during the service encounter, the author decided to examine the service quality construct for the banking context in Cyprus at the bank branch level omitting quality indicators regarding the service quality levels offered through technology channels.

The questionnaire used for the data collection fell into the category of customer survey. This type of survey takes place at a site or facility and is particularly suitable for surveys involving the transport, hospitality or retail industries. These site/user surveys operate in two ways. The interviewer can be stationary and the respondents mobile; alternatively, the respondents may be stationary and the interviewer mobile (Ticehurst and Veal, 2000). For the purposes of this survey, the former method was used; the interviewer was near the entrance of a bank branch and interviewed customers as they exited. It was decided that it would be best to interview respondents as they exited the bank branch as the last perception about the level of service quality experienced would still be fresh in their minds. This site/user survey took place outside bank branches in the area of Nicosia during the period of November 2008 – January 2009. The collection of data took place during customer service hours (from 08:30 to 13:30) on working days (Monday to Friday) and on Monday afternoon (from 15:15 to 16:45).

Customer surveys can be conducted using interviewer respondent completion. Unless carefully supervised, respondent completion methods can lead to a poor standard of questionnaire completion and a low response rate. As with all low response levels, this can be a source of serious bias, in that those who reply may be unrepresentative of the customers (Ticehurst and Veal, 2000). The usual respondent completion survey involves handing people a questionnaire, waiting until they complete it, and finally collecting it. When respondent-completion is thought to be desirable or necessary, sufficient staff should be employed to ask for the completed questionnaires, to provide replacements for questionnaires, which have been mislaid, and to assist in completing questionnaires, including completion by interview if necessary (Ticehurst and Veal, 2000). Conducting customer surveys by

interview is generally preferable to respondent-completion. The use of an interviewer obviously has a time and cost disadvantage but it is the method that was used for the purposes of this research in order to avoid the problems that could occur had the respondent completion method been used.

There are advantages and disadvantages in choosing the questionnaire as the sole tool for conducting research. According to Burns (2000) these are:

Advantages

- Cost. Less expensive to administer than face-to-face interviews. Additionally, funds are not required to train interviewers.
- Each respondent receives an identical set of questions, phrased in exactly the same way.
- Errors resulting from the recording of responses by interviewers are reduced.
- Fear and embarrassment that may result from direct contact are avoided.
- Questionnaires that can guarantee confidentiality may elicit more truthful responses than would be obtained with a personal interview.

Disadvantages

- Complex instruments, ambiguity or vagueness will cause poor responses.
- The method is unsuitable when probing is desirable.
- Ambiguous, incomplete or inaccurate information cannot be followed up.
- Non-flexibility. Respondents may be limited from providing free expression opinions as a result of instrument-design considerations.
- The respondent's motivation for answering the questionnaire is unknown.

4.3.3.1 Questionnaire development

The researcher performed the following steps to formulate and design the survey instrument.

- *Step 1: Literature review on service quality measurement*

Literature review helps in understanding what has been done, how it was done, and most importantly what remains to be done. The literature review provided the theoretical basis for this research and helped in deciding which items to include in the questionnaire.

It is evident in the literature and is also supported by Parasuraman et al. (1988) that the items loaded onto the five dimensions that compose the SERVQUAL instrument can be reworded and/or augmented to fit better the context in which the questionnaire is to be used. This means that modifications may be necessary to test the instrument in different services. Researchers such as Babakus and Mangold (1992), Carman (1990) and others also supported the inclusion of variables that are more closely related to the industry under question. Further, studies by Babakus and Boller (1992), Babakus and Mangold (1992), Carman (1990) and others supported the notion that modifications are needed to render SERVQUAL a valid measurement instrument. The aforementioned arguments suggested that it was necessary to revise SERVQUAL to fit the context by adding items specific to the banking industry in Cyprus.

- *Step 2: Interviews with bank executives*

It is important to gather the opinions of those running the day to day operations of a company (banks in this case) and have the responsibility for offering high standards of service quality to bank customers. Therefore, their input helped in designing a questionnaire which would provide a complete picture of service quality in the local banking industry context. In addition, their expert opinions enriched the survey instrument. Face-to-face interviews (discussed in section 4.3.1.1) were conducted to achieve a

better understanding of what the management and the bank deemed as necessary when they evaluate the level of service quality offered to customers.

- *Step 3: Constructing the questionnaire*

Following the procedure described, the researcher developed the items to be included in the questionnaire. Each question was phrased in a clear and understandable form and all questions were translated into the Greek language as the official language of the population in Cyprus is Greek. The items in the questionnaire were arranged in alphabetical order. The questionnaire was composed of statements and a rating scale. It consisted of three sections. The first section was composed of statements asking the respondent to gauge the actual performance received from their bank branch. The second section consisted of a statement asking respondents to gauge the overall service quality of their bank branch, and an open-ended question as to what other factors – not included in section – 1 - might influence their assessment of the service quality they receive at their bank branch. Finally, in the last section the respondents were asked to provide their demographic information.

4.3.3.2 Questionnaire statements

The individual items included in the questionnaire came to a great extent from the SERVQUAL instrument as developed and later modified by Parasuraman et al., (1985, 1988, 1991a, 1994). The statements were modified, taking into consideration the specific contextual industry and society characteristics and the opinions of bank quality experts. Items from SERVQUAL (Parasuraman et al., 1988) were used since it is a widely accepted instrument that is used to measure perceptions of service quality and its reliability and validity have been verified through several empirical studies. The effort of the researcher was to retain more, or, if possible, all original items of the instrument, as suggested by Parasuraman et al. (1991a) and Zeithaml et al. (1990). Changes were also made to associate individual statements to the banking industry in Cyprus.

The majority of the items in the questionnaire were closed-ended questions. Such questions, as Saunders et al. (2003) have explained, allow the respondent to choose one from a set of alternative answers. This type of question is quicker and easier to answer and analyse. There are six types of closed questions that can be used (list, category, ranking, scale or rating, quantity and grid), however, for the purposes of this study the researcher used rating or scale questions. The rating scale questions are discussed in section 4.3.3.3.

In addition to the closed-ended items in the questionnaire, respondents were asked one open-ended question in order to gather additional information that might be used to modify the factors and/or dimensions that should be used to measure accurately service quality levels in the banking industry in Cyprus as compared to the original SERVQUAL instrument. As suggested by Saunders et al. (2003), open-ended questions allow interviewees to express answers in their own words, and are used when the researcher wants to find out if there is something else in the respondent's mind or what is most important in the respondent's mind. The question read: "Is there any other factor, not included in the questionnaire, that you think is important when you evaluate the quality of your experience when you visit your bank branch?" Answers to this question provided information as to what other, if any, perceived criteria were used by bank customers to evaluate the service quality received at their bank branch. Such a question, if used in future surveys on the same topic, would show if bank customers' criteria for evaluating service quality had changed over time and would help identify the dynamic aspect of their perceptions. However, this is a topic beyond the scope of this study but it could be an issue to be examined further in future research on this topic.

Examples of statements (not in the final questionnaire wording or format) included in the questionnaire were:

Tangibles

1. The bank I use has modern looking equipment.

2. My bank's physical facilities are visually appealing.

3. The employees of my bank branch look professional and are well dressed.

4. The interior of the bank branch is neat and convenient.

5. The bank branch I use is easily accessible.

6. Parking is convenient when I visit my bank branch.

Reliability

7. When my bank promises to do something by a certain time, it does so.

8. The bank I use performs the service right the first time.

9. Bank statements are sent regularly.

10. The bank I use, insists on error-free records.

11. Bank employees are always available to serve my needs.

12. When I face a problem, the bank I use shows a sincere interest in solving it.

Responsiveness

13. Employees in my bank tell me exactly when the services will be performed.

14. Employees in my bank give me prompt service.

15. Employees in my bank are always willing to help me.

16. Employees of my bank give me personal attention.

17. The bank responses to my loan requests are always encouraging.

Empathy

17. Employees at the bank I use, pay attention to my personal problems.

18. Employees at the bank I use understand my specific needs.

19. The opening hours of my bank are sufficient and convenient.

Assurance

20. Employees at my bank are polite and courteous with customers.

21. Employees at the bank I use always possess the necessary information regarding services I request.

22. Employees at my bank provide services with a high degree of competence.

To evaluate overall perceived service quality:

23. My bank provides high quality customer service.

An open-ended question to give the option to customers to add any other variable they value as important when asked to rate the service quality level experienced at their bank:

24. Is there any other variable, not included in the questionnaire that you think is important when you evaluate the quality of your experience when you visit your bank branch?

The final version of the questionnaire, in both English and Greek that was used to collect the data used in this study is presented in Appendix 4.

4.3.3.3 Rating or scale questions

Saunders et al. (2003) explained that rating or scale questions were more appropriate to collect opinion data and the most common scale used today is the Likert-style rating scale whereby the interviewer asks respondents how strongly they agree or disagree with a series of statements. This scale took its name from Likert who proposed in 1932 a simpler method of attitude measurement than the one proposed by Thurstone (differential scales). The Likert method assumes that researchers select a set of statements, to which respondents are asked to state their agreement or disagreement with each statement along a five or seven-point scale, ranging from strongly disagree to strongly agree (Burns, 2000). With the help of the Statistical Package for Social Sciences (SPSS), numerical values were assigned to each of the answers given by the respondent ranging from 1 to 5 or 7, depending on the points used on the scale.

The Likert method has *advantages* that make it a more preferable choice over others (Burns, 2000, p.560). Firstly, it is easier to prepare. Secondly, it is based on the responses of ordinary people rather than on the opinions of experts. The fact that this method produces scales that are more homogeneous

increases the probability that a unitary attitude is being measured, and therefore validity and reliability are reasonably high.

Disadvantages include issues on the validity of the Likert scale. The Likert scale makes possible the ranking of individuals in terms of the favourableness of their attitude towards a given object, but it does not provide a basis for saying how much more favourable one is than another, nor for measuring the amount of change after some experience.

Saunders et al., (2003) suggest using both positive and negative statements in order to make sure that the interviewee reads carefully and evaluates each statement before ticking or putting a circle on the appropriate point. Saunders et al. (2003) also discussed an important issue which has to do with the number of points used on the rating scale. Generally, a scale with an even number of points forces the interviewee to express their feelings or opinions about a statement whereas the use of an odd number of points on a rating scale gives the respondent the flexibility to tick the middle point, which usually is a 'not sure' choice. In the author's opinion, the use of an even number of points that would force respondents to express their opinions should not be used as it would most probably result in answers that would not represent interviewees' honest opinions or feelings. The author decided to use a 7-point scale and offer the middle point of a 'not sure' choice since this would allow respondents to express their honest and unbiased opinion on each quality indicator.

The respondents were asked to indicate how they felt towards each of the statements in the questionnaire. The scale ranged from 'Strongly disagree' denoted by number (1) to 'Strongly agree' denoted by number (7). Respondents also had a choice of 'no opinion'. It was decided to offer the verbal tags explained before between the two extreme points of the scale in order to avoid any misunderstanding of issues by respondents. The verbal labels used for all scale points were:

1 = Strongly disagree

2 = Disagree

3 = Disagree slightly

4 = Neither agree or disagree

5 = Agree slightly

6 = Agree

7 = Strongly agree

(9) = I do not know / No answer

Why use a Likert scale? Most studies conducted to gauge service quality using the SERVQUAL instrument have utilized the Likert scale to collect information from respondents (Asubonteng et al., 1996). In marketing research, as Aaker et al., (1998) discussed, interval scales usually provide the best measurements and the Likert scale was constructed to measure interval data. Finally, several statistical techniques, such as factor analysis, presuppose that the data collected are based on interval scales. Hence, it was decided to use the Likert scale for this study. The 7-point Likert scale also offers the necessary sensitivity to capture respondents' varying attitudes (Zikmund, 1996). It was decided to use a 7-point scale instead of one with fewer points because, as stated above, most of SERVQUAL replication studies have adopted a 7-point scale (Parasuraman et al., 1994a) and it is better to follow the same method. Finally, the 'no opinion' choice is given since bank customers might not have experienced all the services offered in the bank branch, therefore it seemed advisable to provide this option for respondents.

4.3.3.4 Pilot Study

This method however, has its limitations because, as its inventor said, researchers may include or exclude statements from the questionnaire that actually do not succeed in measuring the attitude in question. Therefore, Parasuraman et al. (1985), proposed that all research groups conduct a preliminary

study, a pilot study. During a pilot study, the questionnaire is given to a group similar to that to be studied in order to make sure that the questions match the desired outcome (Burns, 2000). A *pilot study* is a small-scale trial before the main investigation intended to assess the adequacy of the research design and of the instruments to be used for data collection (Sapsford and Jupp, 1996). The pilot sample must be representative of the variety of individuals which the main study is intended to cover. This smaller sample is supposed to cover the full range of individuals and their possible responses. Still with the pilot study, the goal is not to have the exact representation of the proportions of different types of individuals, because the purpose is not to estimate the true proportions, but to cover the entire range of replies that might be given to any of the possible questions in the first draft of the questionnaire. Apart from conducting the pilot in order to devise a comprehensive coding frame for specific questions, there are other aims equally important that refer to the details concerning the answering of questionnaires. Some are (Sapsford and Jupp, 1996, p.104):

- Do the respondents understand the question as phrased? If not, then appropriate language must be used according to the sort of population to be researched.
- Does the questionnaire take too long to complete so that pilot respondents are showing signs of impatience?
- What is the best order of questions?

The researcher conducted a pilot study by administering a small number (10 to 20) of questionnaires in order to gain both a specialized view and an opinion from a possible future respondent and determine if any modifications in the wording of the questionnaires might be needed before conducting a full scale survey. The results of the pilot study were satisfactory, hence no modifications in the wording of items nor any alterations in items were needed.

4.3.3.5 Sampling

In most survey research, it is necessary to sample a proportion of the people that are the focus of the research; this is because it is not possible to interview every one due to cost and time limitations. The total category of a subject that is the focus of attention in a particular research study is known as the population (Ticehurst and Veal, 2000). A population is a collection of individuals or items. A *sample* is a selection of individual members of a population. In an infinite and well-mixed population, a sample will be representative of the whole population (Attwood and Skipworth, 1994). Sampling has several advantages but also some disadvantages.

Advantages

- Sampling is generally cheaper than taking a census, although the cost per sampling unit studied usually is greater than for a census. However, as sampling concentrates on gaining information about selected sampling units rather than on the quality of information gained about each sampling unit, it is often better.
- Sampling is also advantageous in situations where testing the items results in their destruction and where checking every item on a production line makes the process uneconomical. When using a sample rather than a census, data is generally more readily available for analysis and more quickly analyzed (Attwood and Skipworth, 1994).

Disadvantages

- Natural variation is due to chance differences among the sampling units. These differences cannot be controlled or accounted for by the person taking the sample.
- Bias can occur for a variety of reasons that have to do with the definition of the population or the method of selecting the sample (Attwood and Skipworth, 1994).

For the purposes of this research, the sampling population consisted of bank customers in the Nicosia area, aged 18 years and above and the sampling technique used for the survey was systematic sampling.

A systematic sample involves selecting every *n*th unit after a random start. A prerequisite for applying systematic sampling is that the units in the population can be ordered in some way (Ghauri and Gronhaug, 2002). The sampling order was the customers who exited a bank branch. The units (customers) of the population of this survey could be numbered from number 1 (the first unit) up to unit number N (the last unit). Out of every 3 people exiting the bank, 1 was selected to answer the questionnaire. This meant that the interviewer would select customers numbered: 3, 6, 9, 12… n + 3 as they exited the bank. However, it is possible that some customers exited the bank branch during the time the interviewer was conducting an interview with a customer, hence it was possible that the sequence described here was always followed to the letter.

The *advantages* of systematic sampling are:

- It is simple to use.
- The units in the sample are spread evenly over the ordered population and sometimes this increases precision.
- It is suitable for large samples.

A sample that is not representative of the population is described as biased. The aim of the sample selection is to minimize bias. The size of the sample does not depend on the size of the population, rather it depends on the accuracy required and the resources to be allocated to data collection. A large sample will usually be more accurate than a small one but it will need greater resources. For this survey the sample size was based on Nunally's (1978) and Hair et al's., (2006) suggestions that for each question asked five to ten responses are recommended. Therefore, since the questionnaire was composed of 33 items, the sample size should be between 165 to 330. The logic underlying the

aforementioned rule is that a small sample size is not adequate for factor analysis while a large sample size might accept some low correlation coefficients as significant (Hair et al., 2006; Nunally, 1978). Therefore, a sample size of around 300 represents an acceptable ratio as the above rule suggests, and in addition, it is larger than samples that have been used in other service quality studies performed by earlier researchers such as Asubonteng et al., (1996), Parasuraman et al., (1994a), Arasli et al., (2005a;2005b), and others.

Finally, a related issue was the selection of bank branches outside of which the researcher would approach willing customers to take part in the survey. It was decided to conduct the survey outside 15 different bank branches in order to gather data from customers of all or most of the banks that offered retail services to consumers. Since these branches were not located in the same area, the researcher decided to cover several locations in the city of Nicosia to locate customers of most, if not all banks. Bearing in mind Tables 2.2 and 2.3 which present the market shares of banks with regard to loans and deposits respectively and deducting the Co-operative Banks (since the aim of this study was to identify the service quality construct of the banking industry), the market share of the three banks with the highest number of branches, as presented in Table 2.4, hold a combined market share of around 59% in loans and a combined 67% in deposits. Therefore, the researcher gathered data from outside three branches of these banks and from at least one branch of the banks listed in Table 2.4, except Eurobank and 'Others' since they were offering services mainly, if not completely, to corporate customers and the Cyprus Development Bank Public Company Ltd which opened their branch after the survey was conducted. It is also important to note that other banks listed in table 2.4 with a larger number of branches, such as the National Bank of Greece (Cyprus) Ltd, and Societe Generale Cyprus Ltd, are also servicing mostly corporate customers but the author decided to collect data outside their branches since they did have branches in all cities and the author was aware of efforts by these banks to attract retail customers. Overall, data was gathered from customers approached outside the 15 branches of the banks listed in Table.4.1 below:

Table 4.1: Bank branches and number of branches used to gather data

Bank Name	Number of Branches	Number of branches for survey
Bank of Cyprus Public Company Ltd	143	3
Marfin Popular Bank Public Co Ltd	115	3
Hellenic Bank Public Company Limited	72	3
Alpha Bank Cyprus Ltd	37	1
Eurobank EFG Cyprus Ltd	6	0
National Bank of Greece (Cyprus) Ltd	21	1
Piraeus Bank (Cyprus) Ltd	15	1
USB Bank Plc	19	1
Emporiki Bank – Cyprus Limited	12	1
The Cyprus Development Bank Public Company Limited	1	0
Societe Generale Cyprus Ltd	7	1
Others	15	0
TOTALS	**463**	**15**

4.3.3.6 Statistical analysis

4.3.3.6.1 SPSS

The use of technology when conducting a research study in any field has become a requirement. New technology provides a wide range of tools that can be used by researchers at any level that can help them collect and analyze data. One of the most common and popular software packages used to analyze data collected through quantitative procedures is SPSS (Statistical Package for Social Sciences). This is a powerful computer software programme that is primarily used to analyze data through labels and numbers. It can perform a series of statistical procedures and operations, not only to assist the researcher in presenting data in a logical order but also to analyze the data collected and present relationships and correlations that help a researcher to meet the objectives set and to answer the hypotheses tested. Furthermore, SPSS has proved useful in analyzing data collected through

qualitative methods. For the purposes of this study, SPSS and specifically the quantitative methods mentioned in section 4.3.2 above were used to analyze the data collected through the customer survey. These methods are discussed in the following sections.

4.3.3.6.2 Factor Analysis

Factor analysis is an interdependent (each variable is related to all others) method in which all variables are considered at the same time (Hair et al., 2006). Its purpose is to summarize the information in the original variables into a smaller set of new dimensions or factors. These factors, which are assumed to describe the original variables, were used to define the service quality construct with a minimum amount of lost information from the original data set. There is no distinction between dependent and independent variables. The limitation of factor analysis is that it is not possible to identify a specific dimension if the related variables are not included in the set. Therefore, researchers should be very careful when selecting variables for factor analysis (Hair et al., 2006). Factor analysis using varimax rotation was conducted. According to Hair et al., (2006), factors with eigenvalues greater than 1 and factor loadings with values equal to or greater than 0.50 were retained.

4.3.3.6.3 Reliability Coefficient

Cronbach alpha is the most common criterion used when evaluating the reliability of a measure. Churchill (1996, p.407), states: "If all items in a measure are drawn from the domain of a single construct, responses to those items should be highly intercorrelated. Low inter-item correlations indicate that some items are not drawn from the appropriate domain and are producing error and unreliability." Thus, the higher the Cronbach alpha coefficient the higher the internal homogeneity among items of the measure. Nunnally (1978) suggests that for social sciences, the Cronbach alpha coefficient should be higher than 0.7. Reliability analysis was performed on both the total scale and for each of the dimensions that composed the new instrument. The alpha coefficient was greater than 0.70 for all reliability analyses.

4.3.3.6.4 Mean Scores

Mean scores for each dimension of the service quality structure as determined by factor analysis were calculated to evaluate the level of service quality experienced by customers for each of the dimensions which were used to construct the service quality instrument that measured perceived service quality in the Cyprus banking industry.

4.3.3.6.5 Regression Analysis

Subsequently, regression analysis was used to evaluate the predictive ability of the resulting instrument. The dependent variable for the regression analysis was the overall score of perceived service quality. Hence, regression analysis, as part of this study, was used to determine the service quality dimensions to predict the overall perceptions of service quality. Finally, it was expected that the greatest percentage of the variation would be explained by the model resulting from the regression analysis.

4.3.3.7 Ethics

Ethical behaviour in research has been an issue of great debate and consideration. This is especially true in research performed in social sciences such as sociology, psychology and anthropology. However, maintaining ethical behaviour is important in any research. When conducting any form of research it is very important for a researcher to apply and follow a code of ethical behaviour that allows the collecting of the data required without compromising or violating human rights at any level. Ethics are defined as “a set of rules and convictions that distinguishes socially accepted behaviour from that which is considered socially unacceptable” (Burns, 2000, p.17).

During the collection of data all those involved in both answering the questionnaires and during the semi-structured interviews participated as volunteers. They were provided with the necessary information that enabled them to decide whether they wanted to participate in this research, maintaining the right to discontinue at any point of the process. Furthermore, all subjects who decided to take part

in the survey by completing a questionnaire were informed in advance about the purpose of the study. It is important that participants in a research study are aware of the reasons why the research is being conducted and are informed of the importance of answering truthfully and objectively, thus minimizing bias in the findings.

Finally, all information collected and shared was maintained as *strictly confidential*. Questions characterized as personal were avoided (e.g. name, address, telephone, income, etc) and responses to questions were treated as confidential and anonymous (Burns, 2000) so that the identity of the participant could not be identified at any point. Following the code of ethics during research is extremely important, especially in social science research. Moreover, data and issues of confidentiality must be treated with respect so that results can be used to serve social well-being.

4.4 Summary

The objective in this chapter has been to describe the research design, the sampling plan, the data collection process and the methods used to analyse the data collected. The research design consisted of the qualitative phase, which included the literature review and interviews to develop an understanding of the components of service quality, and the quantitative phase, which was largely dominated by the design of the questionnaire, sampling and collection of data, followed by appropriate statistical analysis and examination of validity and reliability. The analysis of research methods provided a way to answer the research questions and hypotheses as outlined in section 1.2 in chapter 1. The data gathered were analysed through factor analysis techniques, calculation of the reliability coefficient and other statistical methods. The findings of the research are presented in the next chapter.

CHAPTER 5: STUDY FINDINGS

5.1 Introduction

After discussing the methods for testing hypotheses in Chapter 4, the author is now in a position to report the research findings resulting from the analysis of the collected data. At this point the researcher is mainly focusing on the presentation and analysis of the data. The purpose of the chapter is to produce the information that will help to answer the research questions and lay the foundation for further analysis in the chapter that follows. Before proceeding with this task, the author will present briefly the qualitative data gathered from the interviews which helped to form an important basis for the survey.

5.2 Qualitative Findings from Interviews

One of the author's purposes, when deciding to conduct the interviews, was to gain as much information as possible regarding the methods that the banks used to collect data on issues involving service quality. A number of different methods were used by the banks, each targeted towards satisfying a specific need that the bank had identified but also to maintain an alert workforce which would keep up with the standards as set by the management. The most important methods used included the 'secret shopper', mail surveys with the use of questionnaires, exit polls and the use of direct banking equipment and employees to perform surveys through telephone interviews.

5.2.1 Measurement Techniques

The 'secret shopper' was a technique used by both banks and seemed to be effective in examining the actual moments of truth that the customer had with the front line employee, usually a teller. This method was undertaken with the cooperation of an external consultant specializing in such techniques. It is important to note that only the relevant managers were aware of the conducting of the 'secret shopper' campaigns. This technique involved a visit of the 'secret shopper' to the branch being evaluated, usually in the role of a customer. There were a number of scenarios designed by the quality experts that

the ‘secret shopper’ executed, in order to evaluate the employee’s performance based on predefined standards and weights as set by the quality experts and bank management. These standards were constant and included elements such as politeness, confidentiality issues, knowledge of new products, dress-code and others.

One should examine though, in detail, if the service quality indicators assessed during such procedures are of relevance to what the bank customers deem as important indicators of service quality. Needless to say, if the indicators evaluated are not important for customers then the whole effort is wasted and the information gained would not add to the bank’s effort to enable continuous service quality improvements and customer satisfaction.

The observations and conclusions obtained through the ‘secret shopper’ procedure were sent to management who communicated the results to each branch manager, along with guidelines on how to improve weak or problematic areas. Overall, even if enforcement of service quality indicators was ambiguous, such techniques did provide an overall view of customers’ perceptions of service quality.

Another technique that was used was the ‘exit poll’, a customer survey method conducted on a pan-Cyprian basis (that is, data was collected from all major cities of the country and from rural areas). The ‘exit poll’ was usually conducted by an external consultancy organization specialized in such surveys. It included the administration of a standard questionnaire composed of items that were predefined through collaboration between quality experts of the bank and of the external consultant. Data was collected by a representative sample of the bank’s customer base (and not from the population of the country) throughout Cyprus. The questionnaire, a sample of which was given to the author during the interviews with the quality experts, included items such as:

- external appearance of the branch and its personnel (dress-code, cleanness, environment, etc.)
- promotion of new products (placement of pamphlets, marketing signs, etc.)

- application of the code-of-conduct as set by the management (welcoming of customers, smiling, politeness, appearance of cashier's name, use of customer's name/surname, etc.)
- effectiveness and efficiency of the service over the telephone
- overall efficiency in serving customers
- ATM(cleanliess, functions, money issues, efficiency, etc.).

Clearly the methods employed by the bank aimed to produce continuous improvement in the level of services offered to customers with the purpose of satisfying their needs. These processes were quite important for the bank, not only to inform management about the service quality standards demonstrated in bank branches but also because they promoted the development of an on-going mechanism that enabled bank management, and specifically the quality experts of banks, to closely monitor responses both from customers and employees on the issues influencing service quality.

To achieve this objective customer surveys such as the 'exit polls' and the visits of 'secret shoppers' were conducted on a continuous basis throughout the year. Specifically, the 'secret shopper' was generally conducted every two months. The frequency of such visits was neither random nor abstract but followed a pattern that helped the bank to compare and contrast results on a bi-monthly basis and allowed enough time to communicate these results to the individual branch managers to either proceed with improvements where needed or where evidenced, so as to maintain high levels of service quality.

The 'secret shopper' method seemed to work for most banks in Cyprus since it offered the possibility of continuous improvement with problem areas, within a small period of time and because it also provided immediate feedback to bank management, thus enabling to proceed with strategic changes if results prescribed such action.

On the other hand, customer surveys in the form of 'exit polls' were usually conducted on a yearly basis and their basic objective was to give an overall view of the situation regarding service quality offered and customer satisfaction. The 'exit poll' was also an important tool for the banks' efforts to offer high standards of service quality, since it could provide a well-rounded idea of the impressions customers had about the bank in contrast to its competitors or about its relative positioning in customers' minds with regard to specific quality indicators. The results of such surveys helped management in the planning of future strategies or modification of the current ones if such strategic alteration was deemed necessary.

Overall, one can conclude that the 'exit polls' helped in the design of a long-run strategy dealing with the topic of service quality, and perhaps customer satisfaction, while the 'secret shopper' method provided an evaluation of customers' perceptions of service quality on a shorter time basis. The two procedures were combined to give an end-result and an overall view of the service quality levels offered by the bank.

5.2.2 A Holistic Approach

In addition to the aforementioned, one of the two banks interviewed, had developed an overall solution, a holistic mechanism that acted as a tool for communicating the results obtained but also for rewarding or punishing branches (and indirectly branch management and branch employees) according to the results scored. The rewards/punishment system acted as a motivator for employees since results were internally published, therefore creating a climate of "healthy competition" both between the branch managers and branch employees of the different branches. In addition, quality experts personally visited the branches, therefore acting both as a controlling as well as a supporting agent for branch management and employees.

Training, with regard to service quality indicators and how service should be delivered to customers through all channels, was also provided an on-going basis in the organization. It was quite unlikely for bank management to offer training after a problem had been identified. In most cases, where a problem was identified, procedures for facing the specific problem at hand were added into the already scheduled training session. Therefore, the bank was aiming to develop a culture that would act more as a prevention mechanism against any issues that might arise and would negatively influence the service quality standards as set by the bank and have consequences on the service delivery experienced by the banks' customers.

The main issues tested during the different consumer surveys conducted by this bank, involved the bank's market share, the mobility of customers through the banking market, the reasons associated with this mobility in relation to service quality and the awareness and ratings of the bank by the population. The aforementioned were always compared to pre-established standards and the competition. It is also important to note that the bank is now piloting a European service quality tool, devised in response to the North American and Japanese service quality schools, called EFQM (European Foundation of Quality Management). The danger, however, with using the EFQM measurement tool is that it tends to be rather complicated and cumbersome, so might not be applicable on a repeat basis to keep track of customers' changing banking requirements.

5.2.3 Concluding Remarks

In general, the interviews conducted as part of this study provided an overview of the methods employed by banks in the country to evaluate customers' perceptions of service quality. It seems that banks have some standard methods that they all employ to evaluate service quality in their banks but also to compare themselves to their competitors. Some of the items assessed were common, for instance the special attention given to customers, the issue of confidentiality about customers' records

and transactions, reliability as to getting the service right the first time and personal relationships developed between customers and bank employees.

Every transaction between any bank employee and a customer is personal for the customers and that makes it extremely difficult to measure and control service quality. Heterogeneity, as discussed in the literature review, plays a major role in service delivery and, coupled with the subjective judgement of each customer as to the perceived level of the service experienced, creates further challenges to bank management and quality experts. Moreover, it is obvious that the concept of service quality covers a number of issues and greatly influences the service delivery process, especially with front line employees, since their work is multi-dimensional and extremely complex.

Finally, it was satisfactory to learn that the top management was aware of the strategic importance that service quality plays in organizations such as banks, where the service provided is identical so distinct competences must be developed in order to keep ahead of the competition. In conclusion, the actions of the largest organizations in Cyprus, to measure service quality and customer satisfaction, further underline the importance of service quality measurement and the development of an analytical model to measure service quality in the local banking industry, which is the main objective of this study.

5.3 Evaluation of Survey Data

5.3.1 Profile of Respondents

The sample for the data collection was composed of bank customers after exiting their bank branch in the area of Nicosia (capital city of Cyprus), during the period between November 2008 – January 2009. The interviewees were approached in a face-to-face manner by the researcher, after receiving the service, on the way out of their bank branch. The target for the number of participants for each branch visited was 20, while the daily target was to collect, at least, 10 questionnaires. Interviewees were asked to rate the criteria listed in the questionnaire, based on a 7-point Likert scale, ranging from

"strongly disagree" to "strongly agree", relative to the level of service quality they received from the bank they dealt with most. Out of the total number of bank customers approached, 300 agreed to participate in the study. The analysis of the survey data (for all 300 cases) revealed the following profile of respondents:

Their age ranged from 18 to over 60 with a similar frequency for each of the age groups. Females, however, accounted for 53.3% of the total sample, a percentage which is in line with the sex characteristics of the total population. As far as education level was concerned, the largest group of respondents consisted of high school graduates (54.7%), with the holders of an undergraduate degree second (24%). Most respondents (30%) belonged to the '5-10 years of receiving the service from the bank they dealt with most' group while the "16+" group came a close second with 28.3%. The sample was compared to the characteristics of the population of the city of Nicosia (see Tables 5.1-5.3 – however, the characteristics with regard to education levels refer to the population of Cyprus) to determine its representativeness. It was concluded that the sample showed only minor differences, with regard to the age characteristics of the total population of the city of Nicosia. The summarized profiles of the interviewees are presented inTable 5.1A for age, Table 5.2A for sex, Table 5.3A for education and Table 5.4 for the number of years respondents had received services from their bank branch.

Table 5.1: Age Distribution of the Population of Nicosia

Age group	Percent
20-29	22.15%
30-39	22.92%
40-49	19.50%
50-59	18.13%
60+	17.29%
Total	100.00%

Source: Statistical Service of the Republic of Cyprus (2010), Labour Force Survey 2009

Table 5.2: Sex Distribution of the Population of Nicosia

Sex group	Percent
Male	48.54%
Female	51.46%
Total	100.00%

Source: Statistical Service of the Republic of Cyprus (2010), Labour Force Survey 2009

Table 5.3: Education Distribution of the Population of Cyprus

Age group	Percent
No education/Elementary school	22.34%
High school	50.24%
Undergraduate / Graduate degrees	27.04%
Doctoral	0.38%
Total	100.00%

Source: Statistical Service of the Republic of Cyprus (2010), Labour Force Survey 2009

Table 5.1A: Age Distribution

		Frequency	Percent	Cumulative Percent
Valid	18-29	63	21.0	21.0
	30-39	64	21.3	42.3
	40-49	71	23.7	66.0
	50-59	54	18.0	84.0
	60+	48	16.0	100.0
	Total	300	100.0	

Table 5.2A: Sex Distribution

		Frequency	Percent	Cumulative Percent
Valid	Male	140	46.7	46.7
	Female	160	53.3	100.0
	Total	300	100.0	

Table 5.3A: Education

		Frequency	Percent	Cumulative Percent
Valid	No education/ Elementary school	35	11.7	11.7
	High school	164	54.7	66.3
	Undergraduate degree	72	24.0	90.3
	Graduate	28	9.3	99.7
	Doctoral	1	.3	100.0
	Total	300	100.0	

Table 5.4:

How many years have you been using the services of the bank you deal with most?

		Frequency	Percent	Cumulative Percent
Valid	Less than 5	60	20.0	20.0
	5-10	90	30.0	50.0
	11-15	65	21.7	71.7
	16+	85	28.3	100.0
	Total	300	100.0	

A more detailed report of the findings arising from the analysis of demographic variables is presented in section 5.5, later in this chapter.

5.3.2 Initial questionnaire analysis

The initial analysis of the questionnaires revealed that several of them were found with a 'do not know / do not answer' response. Hair et al. (2006) explained that missing data exist, when one or more answers to variables in the questionnaire are not available for analysis, a factor in multivariate analysis that every researcher will have to deal with it at a point in time.

Having considered different options, it was decided that questionnaires containing the indication of 'do not know / do not answer', representing more than 10% of the total number of items in the questionnaire (items 1 to 32), would be excluded from further analysis. Therefore, of the total number of questionnaires (300), it was decided that 8 (cases with numbers 114, 126, 232, 246, 265, 273, 282, 295) should be excluded from further analysis, hence, 292 (97.3%) could be used for further analysis.

Further analysis, as suggested by Hair et al. (2006), should assess the possibility of excluding a number of individual variables if that would help decrease the number of missing responses. It was determined that question AQ23 '*Employees of the bank you deal with most receive adequate support from management to serve customers better*' had 8.9% missing responses and question AQ14 '*The bank you deal with most has your best interests at heart*' had 4.1%. Eliminating these two items would improve the missing data by 26, leaving only 30 questionnaires with missing data. However, Hair et. al. (2006, p.56) suggest that variables with as little as 15% missing data are candidates for deletion even though higher levels (20% to 30%) have been treated through imputation methods. Since none of the questionnaires left in the sample had missing data higher than 9.4%, it was decided to keep items AQ23 and AQ14. The question now was what to do with the 56 questionnaires that still included some missing data, albeit very little.

Hair et al. (2006) suggest that researchers must assess the extent of the missing data for individual variables and individual cases. If the extent of missing data justifies action, then the researcher must

determine the degree of randomness, which will help to choose the most appropriate course of action. There are two levels of randomness; Missing at Random (MAR) and Missing Completely at Random (MCAR). The former requires special methods to deal with it and the latter shows that the missing data is random in general and any type of action would suffice. The distinction between the two affects the generalizability of the sample to the population. If the missing data falls under the umbrella of MAR, then the sample values are not generalizable to the population, while if the data are regarded as MCAR, then the sample values have no distinguishable patterns from cases with the complete data, hence, they are generalizable to the population. The power of statistical software like SPSS allows researchers to test the overall randomness of the values in the set to evaluate whether the missing data are MCAR (Hair et. al., 2006). As shown in Table 5.5 below, the values were significant ($p<.05$), therefore the researcher concluded that the missing data in the sample were not MCAR, hence they were classified as MAR.

Table 5.5

EM Means[a]

AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10	AQ11	AQ12	AQ13	AQ14	AQ15	AQ16	AQ17	AQ18	AQ19	AQ20	AQ21	AQ22	AQ23	AQ24	AQ25	AQ26	AQ27	AQ28	AQ29	AQ30	AQ31
6,06	6,04	3,82	4,53	5,98	4,85	6,00	6,26	6,38	4,99	6,26	5,75	5,47	3,88	6,32	5,76	5,88	6,16	5,99	6,11	6,02	5,88	5,76	6,10	6,01	6,17	6,39	6,26	5,56	5,60	5,84

a. Little's MCAR test: Chi-Square = 1835,670, DF = 989, Sig. = ,000

Following, the determination of the missing data as either MAR or MCAR, the researcher must decide on the approach to deal with the problem. This process is known as imputation, a method to estimate the missing values based on valid values of other variables in the sample. Since the researcher determined that the missing data in this study were MAR, then the only available course of action, according to Hair et. al., (2006) is the modelling approach. According to Hair et al. (2006), the researcher must select an appropriate approach (imputation) to deal with missing data. "*Imputation* is the process of estimating the missing value based on valid values of other variables and/or cases in the sample" (Hair et al., 2006, p58). They further suggest that the researcher should apply only one method, specifically the modelling approach, as the use of any other method will produce bias in the

results. Such an approach is the maximum likelihood estimation technique which uses a modelling process to produce the most accurate and reasonable estimates for the missing values. One example of such an approach is the EM one which is also available through SPSS. Hair et al. (2006, p.58) explained in detail this method: "it is an iterative two-stage method – the E and M stages – in which the E stage makes the best possible estimates of the missing data and the M stage then makes estimates of the parameters – means, standard deviations or correlations – assuming the missing data were replaced". The process continues going through the two stages until the change in the estimated values is negligible and they replace the missing data. Hence, it was decided to use this approach to replace the missing values of the 56 questionnaires, thus allowing the use of 292 questionnaires for further analysis. The results of the imputation approach (eg. the data set with replacement values) as obtained from the adjusted set of questionnaires is therefore used for further analysis from section 5.3.3 and onwards.

5.3.3 Pre-testing the items

As Blaikie (2003) and Field (2005) explained, before any further analysis and specifically before proceeding with factor analysis, two procedures, as discussed next, need to be applied: inter-item correlations, item-to-total correlations and the alpha test for reliability (Cronbach's Alfa).

5.3.3.1 Item-to-total correlations

The analysis of the correlation matrix will reveal the initial signs about any possible forms of relationships between the items. In such analysis, as Blaikie (2003) suggests, both the lowest and highest coefficients are being sought. In inter-item correlation analysis, the distribution of the responses to each item is correlated to the distribution of the responses to all items. This is expected to reveal that all items correlate to each other since they measure the same thing. This will test for unidimensionality, that is, the method tests if all items measure the same thing (in this study, perceived service quality). A low correlation coefficient between any item and the total score may either mean that the item is

measuring some other factor or that the item is unreliable. In other words, the preceding explanation indicates that the items should be highly correlated. Field (2005) concluded that the researcher should exclude any variable that does not correlate with the others or that correlates very highly (above 0.90) with another variable. Thus, the researcher needs to inspect the correlation coefficients matrix and identify whether any item has consistently very low coefficients (less than 0.10) with all or most of the other items. If this is the case, these items must be excluded from further analysis. In addition, the matrix of correlation coefficients shows the items that have very high (greater than 0.90) correlation with the others. If this is the case, the researcher needs once again to eliminate these items, except one. After careful evaluation of the correlation matrix, it was determined that no item had consistently low coefficients with all or most of the others. However, two items (AQ29 and AQ30) were found to correlate highly (0.919) with each other, and as Field (2005) suggested, one of the variables should be eliminated from further analysis. Hence, after analysing the correlation coefficients of items AQ29 and AQ30 with all the other items, the researcher decided to eliminate item AQ30 '*Employees of the bank you deal with most know how the bank's products can satisfy your needs*' since it had, on average, a slightly lower correlation coefficient with the other items.

Consequently, as Blaikie (2003) suggested, an analysis of item-to-total correlations is prudent. From Table 5.6 shown in Appendix 5, it can be noted that the item-to-total correlation coefficients of the items ranged from 0.345 to 0.799. Saxe and Weitz (1982) proposed a cut-off point of around 0.35 to determine low item-to-total correlation. Blaikie (2003) claimed that a correlation coefficient of less than 0.50 between any item and the total score needed to be evaluated. Blaikie (2003) went on to suggest as a common rule of thumb to reject any item with a coefficient of less than 0.30, although researchers could set stricter criteria to obtain more reliable results. For the purposes of this study, the author decided that any items with correlation coefficients of less than 0.40 should be excluded. Therefore, from Table 5.6 shown in Appendix 5, in the first run, item AQ1 "*The bank you deal with most has modern equipment and technology*", with a correlation coefficient of 0.345 was eliminated from further

analysis. From the second run, shown on Table 5.7 in Appendix 5, item AQ2 "*The bank you deal with most looks visually appealing*" with a correlation coefficient of 0.316, was eliminated from further analysis. Elimination of these items returned 28 items (Table 5.8, Appendix 5) with correlation coefficients ranging from 0.436 to 0.809, satisfying the criterion of item-to-total correlations.

It is worthwhile mentioning that the elimination of the above items was done on a step by step basis. This means that each time items were eliminated the procedure was run again. This was done to ensure that correlation coefficients to be eliminated were at all times below the 0.40 cut-off mark.

5.3.3.2 Cronbach's Alpha

This is most probably the most widely used procedure for testing the reliability of a scale. As Blaikie (2003) states, reliability of a measure refers to its capacity to produce consistent results. The Cronbach's alpha coefficient ranges between 0 and 1. A higher value (the closer to 1, the better) indicates a high level of consistency among the items. Blaikie (2003) noted that the value of alpha increases as the number of variables being investigated increases. Cronbach's Alpha for the items shown on Table 5.6 (Appendix 5) was 0.946, while the alpha of the 28 items (after the elimination explained in the preceding section) shown on Table 5.8 (Appendix, 5) was 0.947, which further strengthened the decision to eliminate the items with correlation coefficients lower than 0.40.

5.3.4 Service Quality Evaluation

After the pre-testing phase, the resulting data were analysed further. Using the descriptive statistics technique in SPSS, the respondents' evaluation of service quality is presented in Table 5.9, in Appendix 5.

All items, as rated by respondents, with the exception of the items "The bank you deal with most has adequate parking facilities" (mean of 3.79), and "The bank you deal with most has your best interests at heart" (mean of 3.89), exceeded the mid-point of the 7-point Likert scale, which showed that customer

perceptions of the level of service quality they received from their bank branch exceeded the expected level of service quality. In other words, customers were saying that their bank branch offered above-average service, as noted by the average of the means score, which was 5.74. This perception was also confirmed by the agreement of customers, as shown by the ratings of the item "The overall quality of the services you receive from the bank you deal with most is excellent", which was 5.88, much above the scale mid-point. Among the variables listed in Table 5.9 in Appendix 5, the items with the highest score (average mean of 6.40) were "*Employees of the bank you deal with most are helpful and courteous to customers*" and "*The bank you deal with most keeps accurate records of your transactions*" and the item with the lowest score (average mean of 3.79) was "*The bank you deal with most has adequate parking facilities*".

5.4 Hypotheses Testing

The study now proceeds to test the proposed hypotheses to answer the main questions of this research study, including the factor structure of a new model that would accurately and reliably measure the service quality construct in the banking sector of Cyprus. The results of hypotheses testing are presented in sections 5.4.1 and 5.4.2 that follow.

5.4.1 Test of hypothesis H_1:

Hypothesis H_1: "The dimensional structure of service quality that will be identified in the context of the banking industry in Cyprus will not match the dimensional structure found in the original SERVQUAL model."

Factor analysis aims at identifying clusters of high correlation coefficients between the items being measured. Through factor analysis these clusters are recognized, their common variance is measured and the extent to which each item explains the common variance is identified. Therefore, factor analysis helps to reduce a large number of items to a smaller set of factors able to explain the majority

of the variance they have in common. Factor analysis also examines if all the items are highly correlated and thus contribute to only one common factor. Alternatively, factor analysis identifies if there is more than one factor present and which of the items being measured contribute to these factors (Blaikie, 2003). As Hair et al. (2006) suggested, researchers must examine that a structure exists for factor analysis to take place. To achieve this task, the measure of sampling adequacy, which must exceed 0.50 for both, each individual variable and the overall test and the Bartlett's test of sphericity should be examined.

5.4.1.1 Sampling Adequacy

As Blaikie (2003) argued, factor analysis begins with an evaluation as to whether the data set is suitable for factor analysis. As Kim and Mueller (1978) suggested, the most common measure to evaluate sampling adequacy is the *Kaiser-Meyer-Olkin (KMO)* measure. KMO ranges from 0 to 1. The guide for interpreting the measure is as follows (Kaiser, 1974 as cited in Kim and Mueller, 1978, p.54):

- Values in the 0.90s marvellous
- Values in the 0.80s meritorious
- Values in the 0.70s middling
- Values in the 0.60s mediocre
- Values in the 0.50s miserable
- Below 0.50 unacceptable

The KMO for the data set analysed in this study was 0.929, which means that it was excellent. Furthermore, the researcher examined *Bartlett's test of sphericity*, which tests the overall significance of all correlations within the matrix. Bartlett's test for this study indicated that the variables were not independent, which meant that the correlation matrix was not an identity matrix, hence the data set was appropriate for factor analysis (Hair et al., 2006). Therefore, we expect this test to be significant ($p<.05$). A significant test verifies that the correlations matrix is not an identity matrix, hence there are

relationships among the variables to be included in the factor analysis (Field, 2005). Bartlett's test of sphericity for this data was highly significant (p<.001), hence factor analysis was deemed appropriate. Both of these tests are presented in Table 5.10 below.

Table 5.10: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,929
Bartlett's Test of Sphericity	Approx. Chi-Square	5983,123
	df	378
	Sig.	,000

5.4.1.2 Factor Loadings

Factor loading exhibits the relationship between any of the items to a factor; in other words it shows the contribution of each item to a specific factor (Hair et al., 2006). One should expect that any item should have a 'high' loading on only one factor; however, this is not the case. How 'high' a loading should be is dependent on the sample size. As Stevens (1992) (cited in Blaikie, 2003, p.221) explained, for a level of significance of 0.01, the minimum loading for a sample of 50 is 0.72, for 100 is 0.51, for 200 is 0.36, for 300 is 0.30, for 600 is 0.21 and for 1000 is 0.16. Stevens (1992) (cited in Blaikie, 2003, p.222) recommended the use of loadings of 0.40 and above, even though a common recommendation is 0.30 and above. For the purposes of this study, the author decided to use factors with loadings of 0.40 and above, which basically means that 16% of such an item's variance contributes to the factor, which in turn means that such an item carries 84% of unrelated variance. It goes without saying that using a factor loading of less than 0.40 means that an item will carry a higher percentage of unrelated variance that in turn may produce confusing scales.

5.4.1.3 Factor Analysis-Unrotated Solution

At this point, and after the data had been assessed as appropriate for factor analysis, appropriate methods to conduct factor analysis needed to be considered. The two most common methods for factor analysis are principal component and common factor analysis. Aaker et al. (1998) and Hair et al. (2006) agreed that common factor analysis is more appropriate if the objective is to investigate the underlying dimensions of the original variables. If the objective is to reduce data to obtain a smaller number of variables (or components) to explain the greatest percentage of the variance then principal component factor analysis is more appropriate (Hair et al., 2006). Therefore, for the purposes of this study the principal component method was used and consequently principal components were chosen from SPSS.

Following on from this, the researcher had to establish if the items were measuring the same thing, in other words, if the set was unidimensional. As explained before, the aim was to reduce a large number of variables to a single one, if possible. If one factor solution is not possible, then more than one factor should be identified and unidimensionality has to be shown for all (Blaikie, 2003).

When an analysis is run, it results in an initial solution as to the number of factors or components that might be present for the given set of items. In other words, this *unrotated solution*, as it is known, represents the first attempt to identify components. Further analyses are run, which utilise any of the rotation methods (for the purposes of this study, *varimax* was used). Through rotation, the aim is to identify the items that have high loadings on any factor (not just one) and to help with the interpretation of components.

The question that arises is how many of the factors that emerge from a large set of items should be kept. The acceptable procedure here is to use a measure called *eigenvalue*, which, as Blaikie (2003) explained, measures the amount of total variance that each factor accounts for. The eigenvalue criterion, as supported by Aaker et al. (1998), is the most commonly used criterion to determine the

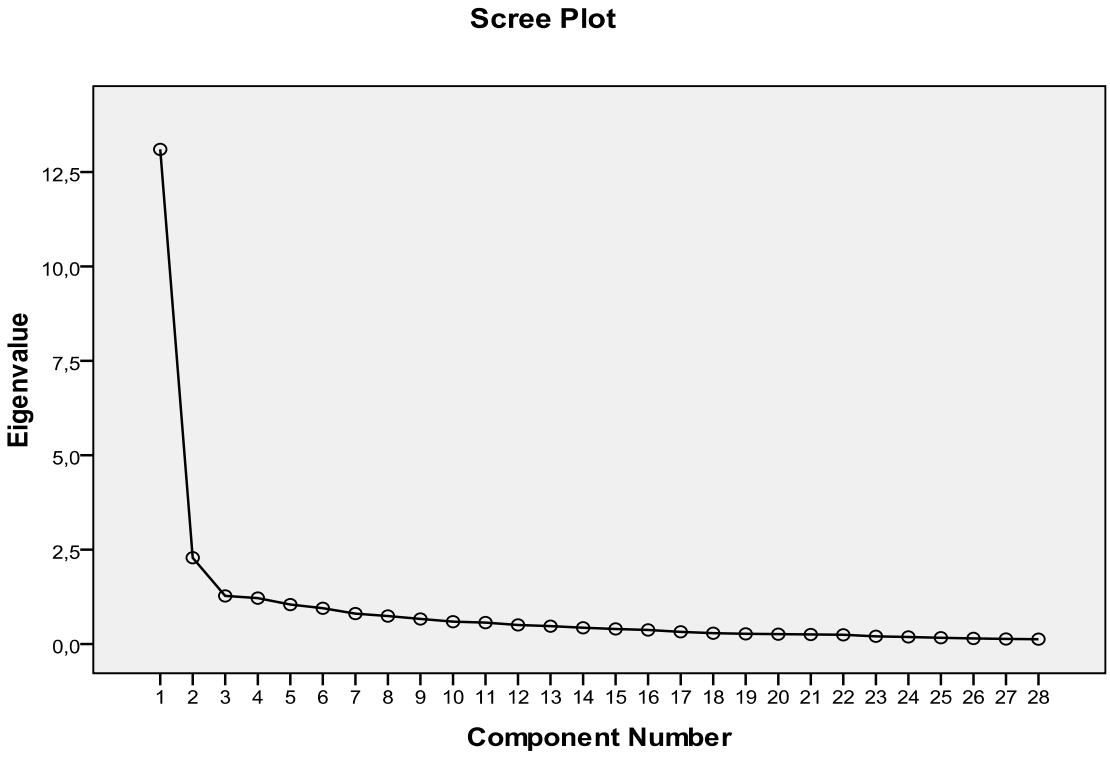
number of factors to be retained. The higher it is, the more variance the factor explains. The common rule of thumb is to use factors with eigenvalues greater than 1, although values of greater than 0.70 can also be used. For the purposes of this study, the researcher decided to keep factors with eigenvalues greater than 1. Table 5.11 in Appendix 5, presents the eigenvalues associated with each factor before extraction, after extraction and after rotation. The eigenvalues are also presented as the percentage of variance explained by each factor. It is also important to note that the first factors, and especially factor 1, explained more of the variance than the subsequent factors. SPSS was used to produce Table 5.11, presented in Appendix 5. All factors with eigenvalues greater than 1 are presented along with the percentage of variance explained in the columns Initial Eigenvalues (before extraction), Extraction Sums of Squared Loadings (after extraction) and Rotation Sums of Squared Loadings (after rotation). As previously explained, the researcher decided to keep the factors with eigenvalues greater than 1; hence, the columns after extraction and after rotation do not present the factors with eigenvalues of less than 1. It is important to note that after rotation factor 1 explained 24.71% of the total variance, whereas the same factor explained 46.79% of variance before rotation. This was so because the effect of rotation was to optimize the factor structure, hence the importance of each factor was balanced.

The initial solution presented in Table 5.11-Appendix 5, suggests, for the set of items being analysed in this study, five factors with eigenvalues greater than 1. One can also see the variance explained by each of the factors of this initial solution and the total variance (67.57%) explained by the 5 components together.

Even though, as Hair et al. (2006) argued, the eigenvalue method is the most widely used, especially when the number of variables is between 20 and 50, other criteria should also be used.

Another popular method is the scree plot test which explains that the number of factors to be kept is shown by the point at which the curve is becoming straight. Figure 5.1 shows that the sixth or even the seventh factors are those that straighten the line, which means that six or seven factors must be kept.

Figure 5.1: Scree Plot



Hair et al. (2006) continued to suggest another criterion to help with the question of how many factors are to be kept. They stated that "in the social sciences, it is not uncommon to consider a solution that accounts for 60% of the total variance (and in some instances even less) as satisfactory" (Hair et al., 2006, p.120). According to this criterion, the researcher could select as few as three factors for the given data.

Hair et al. (2006) proposed that researchers should examine several alternative solutions to verify that the best possible factor structure is identified. Sometimes, they suggested that researchers should test possible factor structures with one more and one less factor than the initial solution, which means that for the data analysed in this study the researcher should test a solution with four or six factors. Following their suggestion, the researcher decided to test the factor structure of a solution with four

factors (presented in table 5.12, in Appendix 5) and one with six factors (presented in Table 5.13, in Appendix 5).

Firstly the six-factor solution is considered. As shown in Table 5.13 in Appendix 5, the total variance explained by the six factors was 70.95%, which is quite large. However, factors 5 and 6 contributed little in explaining the variance (3.38% and 3.72% before rotation). The total variance explained by the four-factor set was 63.84% (after rotation) while the four factors of the six-factor solution explained only 56.30% of the total variance (after rotation). In addition, the first four factors of the five-factor initial solution presented in Table 5.11 in Appendix 5 explained 58.44% of total variance (after rotation). Bearing in mind that the major objective of factor solution is data reduction that will result in the most simple factor structure and will explain the biggest part of the variance, hence providing a meaningful solution, and that the amount of variance lost by implementing a four-factor rather than a five-factor solution is low (only 3.73%), the researcher, after following Hair et al.'s, (2006) suggestions as explained before, decided to implement a four-factor solution that would best represent the data being analysed in this study.

From Table 5.14 in Appendix 5, it can be seen from the unrotated solution the items that load onto each factor. It is important to note that most items were mainly loaded onto component 1, while several items had loadings onto two or three factors. All these items might create problems as the data is analysed further and hence are candidates for exclusion.

5.4.1.4 Factor Analysis-Rotated Solution

As explained before, rotation is used to identify the items that have high loadings on any factor to give meaningful interpretations to factor composition and to provide, if possible, the simplest factor structure. Most analysts hold (for factor analysis) that rotation will improve factor interpretation by decreasing the indistinctness of the initial solution. The method used in this study was principal components with

varimax rotation. Table 5.15, in Appendix 5, shows the items with loadings of at least 0.40 as they load onto each component. It can be seen here how things clear with the use of rotation. Had the researcher chosen to set stricter criteria (for example, further increase the required loadings to 0.50) a clearer result might have been obtained, with items loading onto different factors only. This will be discussed further later.

To assess whether to accept the factor structure presented in Table 5.15 in Appendix 5, the researcher examined the factor loadings, assessing communalities and what to do with any cross-loadings. Given the sample size of 292, factor loadings of 0.35 and higher were considered significant as it was deemed that they contributed to the interpretation of the factor structure. The author, as explained in preceding sections, decided to consider factor loadings of 0.40 and higher as significant. Evidently, factor loadings on both the unrotated and the rotated solution were above the 0.40 threshold. However, the loadings in the rotated solution were higher. Furthermore, an examination of the communalities presented in Table 5.16 in Appendix 5, showed that all variables offered satisfactory explanation as they were all above 0.50, except two, AQ14 "*The bank you deal with most has your best interests at heart*" (0.462) and AQ15 "*Employees of the bank you deal with most are well dressed and appear neat*" (0.478). According to Hair et al. (2006), variables kept in the analysis should, in general, have communalities greater than 0.50. This means that variables with communalities of less than 0.50 do not offer satisfactory explanation and should be excluded from further analysis. Therefore, the two items mentioned above were deleted and a new factor solution was sought without the eliminated variables.

The solution after the deletion of items AQ14 and AQ15 is shown in Tables 5.17, 5.18 and 5.19 in Appendix 5. All figures are improved, which supports the decision to delete the two items. *Bartlett's test of sphericity* was now 0.931, *total variance explained* improved to 65.99% and all *communalities* were above the 0.50 threshold. The new rotated solution is shown in Table 5.20 in Appendix 5.

The researcher needs to evaluate the appearance of cross-loadings, occurring when a variable has significant loadings on more than one factor (Hair et al., 2006). As explained before, the purpose of factor analysis is a simple structure solution with high loadings of each variable on only one factor. However, things more often than not, are not that simple and the researcher is faced with cross-loadings, as was the case in this study.

The objective, according to Hair et al. (2006), is to minimize the number of significant cross-loadings, that is, associate each variable with only one factor; when this cannot be done, the variable(s) should be deleted.

It is important to note that, even though the presence of a general component that includes more variables than the other components still exists, the number of items loaded onto each factor becomes clearer as the rotation helps to produce higher loadings on a smaller number of items for each component (Blaikie, 2003). Nonetheless, cross-loadings (items with loadings on more than one factor) still existed and are listed below:

- '*Employees of the bank you deal with most receive adequate support from management to serve customers betters'* on factors 1 and 4 with loadings of 0.683 and 0.430 respectively.
- '*Employees of the bank you deal with most always provide clear and precise answers to your inquiries'* on factors 1 and 2 with loadings of 0.666 and 0.445 respectively.
- '*The bank you deal with most has operating hours convenient to all their customers'* on factors 2 and 4 with loadings of 0.600 and 0.415 respectively.
- '*The bank you deal with most when promises to do something by a certain time, it does so'* on factors 1 and 2 with loadings of 0.420 and 0.551 respectively.
- '*The bank you deal with most provides easily accessible information of the bank's services'* on factors 2 and 3 with loadings of 0.492 and 0.451 respectively.

- *'The bank you deal with most 'gets it right first time' when performing the service you request'* on factors 1 and 3 with loadings of 0.411 and 0.792 respectively.

- '*Employees of the bank you deal with most are helpful and courteous to customers*' on factors 1 and 4 with loadings of 0.443 and 0.598 respectively.

- '*Employees of the bank you deal with most can be trusted*' on factors 1 and 4 with loadings of 0.422 and 0.477 respectively.

To clarify things more, it was decided to use a stricter criterion for inclusion in the components (Blaikie, 2003). Therefore, the analysis was run again, necessitating factor loadings of 0.50 and above in order for a factor to be included in a component. The solution is presented in Table 5.21, in Appendix 5. By setting a stricter criterion (factor loading of 0.50 or greater) factors loaded only onto one component, which gave a clear picture of the dimensional construct. After setting the stricter criterion, two items did not load onto any dimension. Therefore, items (AQ5) '*The bank you deal with most provides easily accessible information of the bank's services'* and (AQ31) '*Employees of the bank you deal with most can be trusted'* did not constitute part of the solution. The solution is presented in Table 5.22, in Appendix 5.

In the next step, Item (AQ7) '*The bank you deal with most has visually appealing and easily understandable information regarding its banking services*' did not load onto any component and with a communality of 0.460 was thus, eliminated from further analysis. The final solution is presented in Tables 5.23 and 5.24, in Appendix 5. This solution does not have any cross-loadings, with all factor loadings and communalities above 0.50 and a total variance explained of 68.53%.

5.4.1.5 Dimensions

The process of naming factors is by nature subjective, not scientific, as it is based on the judgement of the analyst. As such, it is quite a rigorous and challenging task which involves the use of vocabularies and the logic and judgment skills of the researcher, hence, different people would most probably come

up with different names. According to Hair et al. (2006), the researcher should attempt to name the components by examining all the important variables (those with higher loadings) and assigning a name that best represents the factors in each dimension. It was clear that the 23 remaining items loaded onto 4 dimensions:

Dimension 1 included the following factors:

AQ21 Employees of the bank you deal with most are always available to respond to your requests (RESP)

AQ25 Employees of the bank you deal with most are always willing to solve your problems (RESP)

AQ26 Employees of the bank you deal with most give customers personal attention (EMP)

AQ17 Employees of the bank you deal with most are reassuring to customers (REL)

AQ22 Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers (RESP)

AQ20 Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service (RESP)

AQ23 Employees of the bank you deal with most receive adequate support from management to serve customers better (ASS)

AQ24 Employees of the bank you deal with most provide services with a high level of competence (ASS)

AQ16 Employees of the bank you deal with most offer prompt service to customers (RESP)

AQ18 Employees of the bank you deal with most process your transactions without errors (REL)

AQ19 Employees of the bank you deal with most always provide clear and precise answers to your inquiries (REL)

It was composed of items relating more to responsiveness and less to reliability. It also included two items from the assurance dimension and one item from the empathy dimension of the original

SERVQUAL model. It is worthwhile to mention that items AQ22, AQ23 and AQ19 were new items added for the purposes of this study after examining the existing literature on the topic and as a result of the interviews with bank quality experts and were not part of the original SERVQUAL instrument. A closer look at the items composing this dimension revealed that they focused on employees of the bank, mainly with the way they served customers and how they responded to their needs. Therefore, this dimension was named ***employee proficiency***.

Dimension 2 included the following factors:

AQ3 The bank you deal with most has adequate parking facilities (T)

AQ4 The bank you deal with most is conveniently located (T)

AQ10 The bank you deal with most tells you exactly when services will be performed (RESP)

AQ6 The bank you deal with most has operating hours convenient to all their customers (EMP)

AQ13 The bank you deal with most when promises to do something by a certain time, it does so (REL)

AQ12 The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch) (EMP)

This dimension corresponded more to the tangibles and empathy dimensions of the original SERVQUAL model. It also included one item each from the responsiveness and reliability dimensions. It should, however, be mentioned that items AQ3 and AQ4 above (attributed to the tangibles dimension) were not included in the original SERVQUAL instrument; they were added by the author for the purposes of this study after examination of the available literature and interviews with bank managers responsible for quality control in their banks. The analysis of the items composing this dimension revealed what respondents thought about how the bank offers its services and, more specifically, how easy the bank makes it for customers to find and receive an appropriate level of service. This dimension was named ***convenience*** because the items included could be construed by customers as referring to how the bank offered services to satisfy customer needs, such as the need to have a

convenient location, the need to find easy parking and the need to offer individual attention to customers.

Dimension 3 included the following factors:

AQ8 The bank you deal with most 'gets it right first time' when performing the service you request (REL)

AQ9 The bank you deal with most keeps accurate records of your transactions (REL)

AQ11 The bank you deal with most keeps your transactions confidential (ASS)

This dimension corresponded more to the reliability and less to the assurance dimension of the original SERVQUAL model. However, the researcher argues that all items, for present day consumers, pertain to the professionalism exhibited by, probably, the most important service organizations towards their customers. Hence, keeping accurate records, doing things right the first time and keeping transactions confidential are all parts of how professional an organization is today. Therefore, this dimension was called ***professionalism***.

Dimension 4 included the following items:

AQ28 Employees of the bank you deal with most keep your records and transactions confidential (ASS)

AQ29 Employees of the bank you deal with most know what your needs are (EMP)

AQ27 Employees of the bank you deal with most are helpful and courteous to customers (ASS)

Clearly this dimension corresponded to the assurance dimension of the original SERVQUAL model, even though it included one item from the empathy dimension. However, item 29 could be interpreted in the mind of respondents as an assurance item since employees of the bank know customers' needs and therefore they could rest assured that someone else (the employees in this case) cares about them, understands their needs and would offer them the best possible solution to satisfy their needs. This dimension, as in the original SERVQUAL instrument, was named ***assurance***.

Overall, factor analysis of the data collected produced a different dimensional construct from the dimensional construct identified in the original SERVQUAL model. As presented before, the dimensional construct of service quality for the banking industry in Cyprus is best represented by 23 items loaded onto 4 dimensions. As a result, H_1 "The dimensional structure of service quality that will be identified in the context of the banking industry in Cyprus will not match the dimensional structure found in the original SERVQUAL model" is supported.

5.4.2 Test of Hypothesis H_2:

Hypothesis H_2: "The reliability of the measurement instrument and the reliability of each dimension of the construct will meet the appropriate levels of statistical significance and will effectively capture the determinants of customer service quality of the Cypriot banking industry."

5.4.2.1 Dimensionality

When developing summated scales it is very important to ensure that the items composing the said scale are unidimensional; that is, they are strongly associated with each other and represent a single concept. Unidimensionality of each scale is evaluated through factor analysis when determining the number of factors and the loadings of each item onto the factors (Hair et al., 2006). The items are expected to load highly onto a single factor, as was the case in this study. Factor loadings are presented in Table 5.25 and all items loaded onto a single factor, with loadings higher than 0.50, which is acceptable. Hence, the unidimensionality criterion of each scale has been satisfied.

5.4.2.2 Reliability

As Blaikie (2003) suggested, the process of identifying the scales of the final instrument and the factors that load onto each, is a rigorous effort that involves a lot of experimentation with different alternatives. Clearly, data analysis in the preceding section produced one general scale, consisting of 11 items, and three smaller scales, consisting of 6, 3 and 3 items respectively. Naming the scales is a subjective

process but the title should reflect the contents of each scale. The objective is to verify consistency in the content of the items in each scale. To do this, the researcher ran item-to-total correlations and reliability (Cronbach's alpha) analysis. Both are presented in Table 5.25.

Evidently, item-to-total correlation coefficients (the correlation of each item to the summated scale score) were generally higher for dimension 1 than in the other dimensions but they were all above the cut-off point of 0.50 suggested by Hair et al. (2006). Furthermore, inter-item correlation (the correlation among items) exceeded 0.30. The other measure that evaluates the consistency of the entire scale, Cronbach's Alpha, was 0.941, which again is much higher than the 0.70 cut-off point as suggested by Hair et al. (2006). All dimensions have an alpha reliability over 0.70, which, as explained in section 5.3.3.2, is the minimum requirement to accept the reliability of a scale and its capacity to produce consistent results. As explained in section 5.3.3.2, Blaikie (2003) noted that the value of alpha increases as the number of variables being investigated increases. Therefore, it was expected that Dimension 1, which includes 11 items, would have a higher alpha score (0.947) compared to the alpha score of the other Dimensions (0.842, 0.821, and 0.749). Therefore, the analysis of inter-item correlations, item-to-total correlations and the Cronbach's Alpha test, verified the reliability and consistency of each scale, and as such Hypothesis H_2 is supported.

Zikmund, (1996) noted that reliability is necessary but does not prove the validity of the instrument. In other words, even if a scale is reliable (as is the case in this study), the validity of it may not be assured. Therefore, it was considered important by the author to conduct an investigation into the validity of the instrument. This is discussed in section 5.4.2.3 next.

Table 5.25

Dimension 1: Employee Proficiency	Corrected Item-Total Correlation	Cronbach's Alpha for Dimension 1: **0.947**
Employees of the bank you deal with most offer prompt service to customers	,688	
Employees of the bank you deal with most are reassuring to customers	,797	
Employees of the bank you deal with most process your transactions without errors	,769	
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	,802	
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	,796	
Employees of the bank you deal with most are always available to respond to your requests	,786	
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	,774	
Employees of the bank you deal with most receive adequate support from management to serve customers better	,747	
Employees of the bank you deal with most provide services with a high level of competence	,772	
Employees of the bank you deal with most are always willing to solve your problems	,801	
Employees of the bank you deal with most give customers personal attention	,736	
Dimension 2: Convenience	Corrected Item-Total Correlation	Cronbach's Alpha for Dimension 2: **0.842**
The bank you deal with most has adequate parking facilities	,662	
The bank you deal with most is conveniently located	,751	
The bank you deal with most has operating hours convenient to all their customers	,565	
The bank you deal with most tells you exactly when services will be performed	,632	
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch	,613	
The bank you deal with most when promises to do something by a certain time, it does so.	,596	
Dimension 3: Professionalism	Corrected Item-Total Correlation	Cronbach's Alpha for Dimension 3: **0.821**
The bank you deal with most 'gets it right first time' when performing the service you request	,706	
The bank you deal with most keeps accurate records of your transactions	,758	
The bank you deal with most keeps your transactions confidential	,583	
Dimension 4: Assurance	Corrected Item-Total Correlation	Cronbach's Alpha for Dimension 4: **0.749**
Employees of the bank you deal with most know what your needs are	,635	
Employees of the bank you deal with most keep your records and transactions confidential	,664	
Employees of the bank you deal with most are helpful and courteous to customers	,589	

5.4.2.3 Validity

The final assessment relates to scale validity. Validity refers to the extent to which a scale accurately corresponds to the concept under study (Hair et al., 2006). The most widely used forms of validity are predictive validity, convergent validity, discriminant validity and content or face validity.

5.4.2.3.1 Predictive Validity

To assess whether the four factors identified from the factor analysis were important predictors of customers' future assessments of service quality, the author decided to perform multiple regression analysis. The independent variables were the four factors extracted from the data set in section 5.4.1.5. The dependent variable was the assessment of the overall service quality customers receive from their bank.

The multiple regression model was developed using the stepwise technique. This procedure is a multi-step procedure in which the independent variables are added to the regression model according to their ability to explain the dependent variable. Hence, the process of adding one variable at a time will not increase the variance explained because all of the variables included will significantly contribute to the prediction of the dependent variable (Hair et al., 2006). Table 5.26, in Appendix 5, presents the output of the SPSS stepwise multiple regression. The factors included were added in the sequence factor 1, factor 4, factor 3 and factor 2. The four factors together predict customers' service quality evaluations, as documented below.

Factor 1 was added first since it seemed to be the best predictor of service quality evaluation as it explained about 37.8% (R^2) of the total variance of the dependent variable. Factor 4 was then added to the model as it offered the greatest marginal improvement, as shown in the partial correlation coefficient column in Table 5.26, in Appendix 5. Now the regression model with two independent variables

explained 45.3% of the total variance. The standard error of the estimate had decreased from 0.690 to 0.647. Both of these exhibited an improvement in the overall model fit. Factor 3 was added next and then Factor 2 to reach the final regression model. The regression model now explained 50.1% (adjusted R^2) of the total variance. This value means that 50.1% of the variance in the overall service quality evaluation by customers could be predicted from the four factors in the model. R^2 was used to avoid over-inclusion of variables to increase the variance explained, since the greater the number of variables added into the model, the higher the variance explained, independently of the existence of any relationship of the variables included in the model or not (Hair et al., 2006). The regression coefficient (b) and the standardized coefficient (beta) show the change in the dependent variable for each unit of change in the independent variable. The t value is the test of regression coefficients to see whether they are equal to zero or not, within a stated level of error (Hair et al., 2006).

In this study the t value of the final model was 4.001, which is statistically significant ($p<.001$). It provides assurance that the coefficient is not equal to zero and can be used as a predictor of customer evaluations. ANOVA analysis is a statistical test that shows the overall model fit in terms of the F ratio. It was concluded that the F ratio was 74.145 and the overall model was statistically significant as ($p<.001$). The last element to address is the impact of multicollinearity. It is evaluated by the VIF (value inflated factor), an indicator demonstrating the existence of multicollinearity in the model. It is the degree to which each independent variable is explained by the other independent variables in the model. A common tolerance value of 0.10 corresponds to a VIF value of 10. Values of VIF larger than 10 indicate multicollinearity. VIF values in this study were 1, indicating a very low degree of multicollinearity; hence, the explanation offered by each independent variable of the others was insignificant.

According to Aaker et al. (1998), regression analysis can also be used to explain the relationships between variables since it explains which of the factors that compose the final model has the greatest

influence on the dependent variable. One approach is to consider the t value. Simply put, the largest t value is the one that is the least likely to have a coefficient of zero, therefore it has the highest impact on the dependent variable. From Table 5.26, in Appendix 5, factor 1 (employee proficiency) had the greatest influence on the dependent variable with a value of 14.846, followed by factor 4 (assurance) with a t value of 6.644 and finally by factor 3 (professionalism) and factor 2 (convenience) with t values of 4.003 and 4.001 respectively. These results confirm the importance of employee proficiency in the overall model, as shown through factor analysis. All coefficients were positive and as part of the model they explained 50.1% of the variance in customers' evaluations of overall service quality. Therefore, this result demonstrates the predictive ability of the instrument. The predictive ability of this instrument was therefore shown to be better than the predictive ability of the SERVQUAL and SERVPERF models in the study of Jain and Gupta (2004), who examined the predictive ability and validity of the aforementioned models in the fast-food industry in India, with an adjusted R^2 of 17.1% and 29.4% respectively.

5.4.2.3.2 Convergent Validity

Multiple regression analysis can also be used to prove convergent validity. As shown in Table 5.26, in Appendix 5, the overall model was significant ($p<.001$) and the four factors that composed the model explained 50.1% of the variance in customers' evaluations of overall service quality at their bank. Moreover, all the coefficients were positive. These results, in total, demonstrate that the four factors are positive and predict customers' evaluations of the level of service quality (item 32).

As Hair et al. (2006) explained, convergent validity evaluates the degree to which two measures of the same concept are correlated, hence high correlations suggest that the scale is measuring its intended concept. However, since in this study there was no other dependent variable than item 32, convergent validity cannot be supported by multiple regression analysis. Nevertheless, as Sanzo et al. (2003) suggested, convergent validity can be verified by confirming that the factor loadings of the final model

are higher than 0.5, which, as presented in Table 5.23, presented in Appendix 5, was the case in this study. Furthermore, Parasuraman et al. (1991a) stated that convergent validity is assumed to exist because the reliability of the instrument is measured by internal consistency (Cronbach's Alpha) as was demonstrated in section 5.3.2.2. A relatively close relationship between overall service quality and the average quality score would suggest convergent validity. The average quality score was the grand average of the sum from item AQ1 to AQ31 (excluding items AQ1, AQ2, AQ5, AQ7, AQ14, AQ15, AQ30 and AQ31). The average quality score for this study was 5.767 and the overall service quality as measured by item AQ32 was 5.876. Evidently there is a very close relationship between the two measures, which also supports the convergent validity of the instrument.

5.4.2.3.3 Discriminant validity

Discriminant validity refers to the degree to which two similar concepts are distinct (Hair et al., 2006). This means that the scale is sufficiently different from other similar concepts so as to be distinct. Table 5.26, in Appendix 5, exhibits the results of the multiple regression analysis, indicating the relationship between customers' evaluations of overall service quality (dependent variable) and the four service quality dimensions (independent variables). The result from the regression model demonstrated that all four independent variables were positively correlated with the overall service quality evaluations and that the overall model was statistically significant, as shown in section 5.4.2.3.1 above. However, as explained above, since in this study no other similar concepts were developed, then the resulting model cannot be used to evaluate its distinctiveness from other similar models.

Nevertheless, according to Doll and Torkzadeh (1988, p.267), "discriminant validity is tested for each item by counting the number of times it correlates more highly with an item of another variable (factor) than with items of its own theoretical variable". Campbell and Fiske (1959) suggested that this number should be less than 50 percent of the potential comparisons. An examination of the correlation matrix of the refined scale items that make up the final solution is presented in Table 5.27 below.

Each of the 23 items' lower correlations were compared with the correlations of the items not in the same dimension and the conclusion was that the there were 37 violations out of the 330 possible comparisons, a number which is much less than the condition for discriminant validity as set by Campbell and Fiske (1959), therefore the discriminant validity of the scale is acceptable. For example, the lowest correlation of AQ3 "The bank you deal with most has adequate parking facilities" compared with the correlations of the other factors included in the same dimension was 0.388. This correlation was the lower of only 2 (out of 16) of the item's correlations with all the other items belonging in the other dimensions. Since both, convergent validity and discriminant validity were confirmed, the instrument satisfies the requirements for construct validity (Ho and Lin, 2010).

Table 5.27

Correlation Matrix																					
	Q3	Q4	Q6	Q8	Q9	Q10	Q11	Q12	Q13	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28
Q4	,708																				
Q6	,388	,531																			
Q8	,157	,193	,148																		
Q9	,127	,193	,184	,756																	
Q10	,477	,519	,502	,170	,184																
Q11	,277	,357	,362	,520	,576	,309															
Q12	,445	,560	,353	,365	,283	,490	,362														
Q13	,485	,464	,407	,282	,278	,457	,480	,539													
Q17	,366	,348	,368	,490	,466	,400	,500	,435	,515												
Q18	,300	,318	,319	,599	,506	,323	,421	,460	,448	,652											
Q19	,436	,471	,480	,447	,416	,486	,448	,555	,602	,741	,726										
Q20	,276	,280	,343	,508	,441	,350	,521	,502	,505	,659	,668	,717									
Q21	,373	,373	,296	,382	,398	,400	,469	,495	,509	,692	,553	,663	,645								
Q22	,343	,329	,267	,552	,457	,316	,497	,545	,505	,595	,643	,613	,675	,610							
Q23	,310	,334	,397	,383	,372	,291	,429	,413	,452	,627	,622	,617	,615	,640	,660						
Q24	,334	,277	,272	,563	,468	,281	,440	,480	,444	,605	,658	,639	,702	,608	,672	,628					
Q25	,401	,328	,293	,455	,424	,415	,502	,507	,516	,686	,568	,592	,657	,741	,687	,623	,661				
Q26	,331	,223	,223	,445	,447	,335	,447	,400	,414	,619	,560	,532	,636	,630	,585	,600	,655	,731			
Q27	,262	,343	,297	,355	,422	,303	,459	,419	,404	,506	,471	,509	,481	,580	,536	,476	,536	,562	,665		
Q28	,217	,314	,317	,401	,529	,307	,569	,417	,411	,524	,493	,505	,499	,564	,476	,583	,485	,557	,605	,646	
Q29	,280	,393	,403	,156	,263	,422	,350	,351	,352	,440	,367	,513	,434	,396	,399	,535	,420	,405	,373	,515	,553

5.4.2.3.4 Content Validity

Content (or face) validity refers to the evaluation of the correspondence between the individual variables and the concept so that the individual variables can be included in a summated scale and are part of its definition. This subjective evaluation can be sought from expert judges, pre-tests of the questionnaire or other means. Assessing content validity is more qualitative in nature rather than quantitative (Hair et al., 2006). Parasuraman et al. (1988) stated that it includes two things:

- the thoroughness with which the construct and its area were clarified, and
- the extent to which the scale items represent the construct's area.

Considering that the research design has followed Parasuraman et al.'s, (1988) framework for the development of measurement scales, together with a thorough review of the literature, expert opinions and customer interviews, it is the author's belief that the measurement scale developed in this study has content validity.

Furthermore, support for content validity can be sought in respondents' answers in item 33 of the questionnaire '*Is there any other factor, not included in the questionnaire, that you think is important when you evaluate the quality of your experience when you use the services of your bank?*' Only 2.1% (8 out of 292 valid cases) of the respondents indicated additional items as variables that might influence their evaluations of service quality. The vast majority of the respondents (almost 98%) indicated that no other criteria beyond those specified in the questionnaire were needed to evaluate service quality, thus demonstrating the thoroughness of the questionnaire. Therefore, content validity is supported.

5.5 Findings related to the demographic variables

At this point, it is worthwhile to mention some findings that resulted from the initial analysis of the data gathered. As mentioned in section 5.3.1 above, the demographic profile of the respondents relating to

their age distribution, their sex and education level corresponds closely to the actual characteristics of the population of Nicosia. This may allow generalizability of the findings to the population.

There is one demographic characteristic, namely the education level of respondents, which as a group accounts for 54.1% of the total and evidently influences the results. This is the only figure that does not correspond to the actual percentage (46%) found in the total population. To have a complete picture of the issue, the educational characteristics of the population in Cyprus are: no education/elementary school 29% compared to around 12% found in the sample of the data collected in this study, high school graduates 46% compared to 55% of the sample, undergraduate, graduate and doctoral degree holders 25% (the relevant report from the Statistical Service of the Republic of Cyprus, does not separate the degree holders as was done in the study but lists them as degree holders altogether, therefore to have comparative figures the author summed together the three categories of degree holders of the study and reached the figure of 33%) compared to 33% found in the sample. In other words, what the group of people, educated up to the high school level, perceives as high levels of service quality has a higher impact on the ratings given to the items tested in this study than the impact of all the other education level groups (i.e. no education/elementary school, undergraduate, graduate, and doctoral degrees) taken together.

To explain further the impact on the results, the effect of this group on items was examined "*Employees of the bank you deal with most are helpful and courteous to customers*" and "*The bank you deal with most keeps accurate records of your transactions*", which as discussed above had the highest mean score of all the items included in the questionnaire. Why do these statements seem more important than the others? A simple explanation could be found in the education level characteristics of the sample. A person with education up to the high school level is more likely to care more about factors such as the quality of service received from employees and about the safety of customer transactions with the bank. Related to the issue of what kind of service is experienced is the issue of how helpful

and courteous to customers employees are. In contrast, a person with a higher level of education would care more about how to obtain the required service faster, if possible, from his/her house or work through other means such as the Automated Teller Machines (ATMs), phone banking or internet banking, without even coming into contact with the employees of the bank. The aforementioned are not stated and by no means imply that people that do not hold university degrees are ignorant or that they do not understand how to use the other service channels offered by their bank. It simply means that similar to people with age differences, those with higher education levels might place their importance on other issues rather than courtesy and how helpful employees are.

This fact is also important to bear in mind for future research, as the education level of the population of a country and its age structure are changing, since quality indicators used today could become obsolete in 10 or 20 years and would need to be modified to accurately capture and measure service quality perceptions at that point in time. In contrast to what Parasuraman et al. (1988) claimed, that the factors included in the SERVQUAL instrument are generic and universal and apply to all service settings, one cannot employ the instrument as is without taking into account the changes in the preferences and tastes of individuals that are dynamic and change over time. Therefore, when analysing the results of this study, it is important to bear this in mind.

Some additional findings that are worth reporting were also obtained by further analysis of demographic variables such as sex and education level. The author noted that there were no significant differences by the age variable. Specifically, before proceeding further, the author decided to check the significance of mean differences for each of the quality statements that make up the model. In line with the Levene test that checks the equality of variances, (tests the assumption that the variance of the mean differences should be equal) the author employed the t-test for equality of means Chand (2010). Firstly, the mean differences against the sex of the respondents were examined in Table 5.28, in Appendix 5. The test showed that the assumption was accepted for all items except AQ6, AQ29, AQ32, because the means differed significantly at the $p < .05$.

As presented in table 5.28, in Appendix 5, the mean scores for males were lower in all items than those for females. The author believes that male perceptions compared to female perceptions of service quality with respect to the specific items in the questions were higher or more difficult to meet. In other words, female respondents were more satisfied with the services received at their bank branch than their male counterparts.

With respect to the differences in the mean scores of education levels for each quality statement included in the final instrument, the author noted that these differences were less (in number) than those found between sex and each quality statement. The relevant statistics are illustrated in Table 5.29, in Appendix 5. The mean score differences were between the 'no education / elementary school' group and the 'graduate degree' group. For all cases (AQ8, AQ9, AQ12, AQ16, AQ22, AQ25, AQ26, and AQ28) where the difference was significant at the $p<.05$, the mean scores of the 'graduate degree' group were higher than those for the 'no education/elementary school' group.

In the author's opinion, this difference is most probably attributed to an understanding of how difficult is to provide high standards of quality service on a continuous base. Perhaps, those respondents with no education or with only an elementary school certificate do not understand the difficulties or do not care about them. What is important though is that the people that belong in this group are less satisfied than those with a graduate degree. Hence, either management has to explain what should be expected of the bank to close any possible gap that might exist or raise their level of service up to a point that would be deemed to be satisfactory by the specific group. It was also noted that 3 of these statements belonged to the 'employee proficiency' dimension, 2 to the 'professionalism' dimension and 1 from each of the 'convenience' and 'assurance' dimensions. Four out of the seven statements related to the employees while the remaining three related to the bank.

5.6 Summary

The study findings based on the hypotheses testing are summarized below:

Test of hypothesis H_1: "The dimensional structure of service quality that will be identified in the context of the banking industry in Cyprus will not match the dimensional structure found in the original SERVQUAL model."

Data analysis supports this hypothesis. The model resulting from the data set suggests a four-dimensional construct derived from 23 items in the questionnaire. The dimensional structure of the suggested model was discussed in section 5.4.1.5. This result is clearly different from the SERVQUAL and SERVPERF models as both indicate five dimensions composed of 22 items.

Test of hypothesis H_2: "The reliability of the measurement instrument and the reliability of each dimension of the construct will meet the appropriate levels of statistical significance and will effectively capture the determinants of customer service quality of the Cypriot banking industry."

Again the hypothesis is supported through the analysis presented in section 5.4.2. Internal consistency of the scale(s) in this study, indicated by the Cronbach alpha coefficients, both for the overall scale and the summated scales (dimensions) ranged from 0.941 to 0.749. They were higher than the 0.70 threshold suggested by Hair et al. (2006) and others in the literature. Furthermore, the results showed that the resulting model was strengthened by its predictive validity, convergent validity and content validity.

Based on these results, the resulting model appears to be a reliable and valid instrument to apply to the banking industry in Cyprus. Further discussion and implications of these findings will be presented in the next chapter.

CHAPTER 6: DISCUSSION OF FINDINGS

6.1 Introduction

The basic objective of this chapter is to decode the results obtained in chapter 5 and demonstrate their relationships to the hypotheses and the research questions that this study is intending to answer. In addition, the author aims to connect the findings of this study with the literature reviewed in chapter 3 and finally to draw any possible managerial and theoretical implications from the results. Firstly, the author will present a discussion of the two hypotheses.

6.2 Discussion of the Result of Hypothesis H_1

Hypothesis H_1: *"The dimensional structure of service quality that will be identified in the context of the banking industry in Cyprus will not match the dimensional structure found in the original SERVQUAL model."*

The structure of the model derived from the data collected resulted in a four-dimensional model (composed of 23 variables or items) that aims to measure service quality levels in the banking industry in Cyprus. The findings from this study answer the first research question which is: "What are the dimensions of customer service quality when examined in the context of the Cypriot banking industry?" Evidently, the result is different from the dimensions proposed in SERVQUAL and in this respect it strengthens the concerns of other researchers such as Babakus and Boller (1992), Cronin and Taylor (1992) and Carman (1990), with regard to the dimensionality and use of SERVQUAL across different industries and settings. At the same time though, the findings of this study mostly disagree with Cronin and Taylor's (1992) conclusion that the structure of service quality is unidimensional.

As stated before, several researchers have examined the dimensionality of service quality in different contexts and countries. Babakus and Boller (1992, p.265) commented that "the domain of service quality may be factorially complex in some industries and very simple and unidimensional in others".

They claim that the number of service quality dimensions is dependent on the particular service being offered and therefore it is not worth pursuing the development of a standard measurement instrument.

Gronroos (1984) identified three dimensions: technical, functional and image quality. Buttle (1996) also stated in his study that the five dimensions were not universal. Zeithaml and Bitner (2003) implied that, although the five dimensions of SERVQUAL would be relevant to most service industries, in some situations, customers would not use all the dimensions to evaluate service quality, hence, one would conclude that the five dimensions of the instrument are not generic and the number and definition of dimensions varies depending on the context.

More specifically, Gagliano-Bishop and Hathcote (1994) determined four factors (personal attention, reliability, tangibles and convenience) in the retail clothing sector. Avkiran (1994) performed a study for an Australian bank which identified four dimensions (staff conduct, communication, credibility and access to teller services). Bahia and Nantel (2000) developed a service quality instrument (named BSQ) in the banking context of Canada, composed of six dimensions (effectiveness and assurance, access, price, tangibles, services portfolio and reliability). Sureshchandar et al. (2002) examined the service quality construct in the banking sector of India and determined that it was composed of five dimensions, namely, core service or service product, human element of service delivery, systematization of service delivery, non-human element (tangibles or servicescapes) and social responsibility. Cui Chi et al., (2003), assessed the measurement of service quality in the banking industry of South Korea and identified three dimensions (tangibles, reliability and empathy) which are close to the dimensions of the original SERVQUAL instrument but they could not identify all five dimensions of the original model. Zhou (2004), conducted a study to examine the dimensional structure of service quality associated with banking services in China which resulted in a model composed of three dimensions (empathy and responsiveness, reliability and assurance, and tangibles) that incorporate the five dimensions of the original SERVQUAL model.

Arasli et al. (2005a) identified three dimensions in their study to evaluate the applicability of SERVQUAL (by measuring the P-E gaps and without any modification as to the number and wording of items) in the banking industry of Cyprus. Specifically, they identified 14 items, loaded onto three dimensions (tangibles, reliability and responsiveness and empathy). The assurance dimension was completely eliminated from the scale. Additionally, an item from the original SERVQUAL model regarding banks' operating hours was omitted from the questionnaire. However, their findings, when compared with the findings of this study, differ significantly both in the number of items that make up the solution and the number and composition of dimensions identified; furthermore, the general approach and methodology used to conduct their research differed from those used in this study. Two concerns relating to the profile of respondents and which may have influenced the results were the differences in gender and educational composition of the sample, which in Arasli et al's., study (2005a) were not representative of the population. Another study by Arasli et al., (2005b), employed SERVQUAL to measure bank customers' service quality perceptions for the banks operating in Northern Cyprus (occupied territories) compared to the customers' perceptions of service quality for those in the South (Republic of Cyprus). Their study resulted in a four dimensional model consisting of 18 items, with the responsiveness dimension not included in the final solution. Their findings also differ with the findings of this study, both in the number of items that make up the solution and the number and composition of dimensions identified.

Similar to the study of Arasli et al. (2005a), is that of Karatepe et al. (2005). They examined the service quality construct for customer perceptions of service quality in retail banking in Northern Cyprus. Karatepe et al. (2005, p.379) identified 20 items that made up a four dimensional model. The four dimensions were service environment, interaction quality, empathy, and reliability. Again, the findings of their study were quite different from those presented in this study.

The composition of the dimensions (even though both studies suggest that the service quality construct is made up of four dimensions) is also different. For example, the interaction quality of Karatepe et al.'s (2005) model, which corresponds to the nature of items included in the employee proficiency dimension of this study, is made up of 7 items in contrast to the 11 items that make up this study's employee proficiency dimension. Moreover, 13 of the items included in 3 out of the 4 dimensions of their model were loaded onto 2 of the dimensions identified in this study; specifically, the employee proficiency and the assurance dimensions. The remaining 3 items were not included as service quality indicators tested in this study. Finally, the 4 items making up the tangibles dimension, which is represented in their study by the service environment, are not part of the service quality construct identified in this study.

Finally, one statement they used should most probably be included in the service quality indicators tested in this study. The statement is: "This bank does not make its customers stand in a queue for a long time". Conversely, the author decided not to use such a statement since the aim of this study was to identify the service quality indicators that would best describe the service level experienced using the services of a bank branch in general, and not one of the services in particular, i.e. the teller service.

Additionally, SERVQUAL states dimensions in order of importance. However, this order may change on the basis of the service encounter. For example, tangibles which are of least importance, have a great impact on customers in health care. Responsiveness, which is a major component, was found to be relatively weak in the dental clinic context (Carman, 1990).

The reliability/assurance dimension seemed to be the most important in Zhou's study (2004), while the other dimensions seemed to be insignificant. Clearly, the results of this study support this argument as well. The most important dimension of the model resulting from this study was employee proficiency, followed by convenience, professionalism and lastly assurance. Tangibles' items did not load onto a distinct dimension; rather they loaded, along with other items, onto one of the four dimensions composing the model.

Furthermore, items or factors do not always load onto the dimension which one would a priori expect, hence some studies produced results that explained the variance with two or three dimensions, and there was also a high degree of intercorrelation between the five dimensions (Buttle, 1996). SERVQUAL is composed of 22 items, with four or five items loading onto each dimension, irrespective of each one's importance. As previously stated, the result of this study is a four-dimensional model composed of 23 items. Dimension 1 (employee proficiency) is composed of 11 items, dimension 2 (convenience) is composed of 6 items and dimensions 3 (professionalism) and 4 (assurance) are composed of 3 items respectively.

This problem with the dimensionality of the instrument was also supported by Brown et al. (1993). They found, again, that the dimensionality did not replicate. Their factor analysis of the 22 items resulting in the 5 dimensions of the SERVQUAL instrument showed that they might represent just one dimension (hence, a unidimensional construct). An alternative structure for modelling service quality was developed by work undertaken within the TSB Bank plc (in the UK) to determine both retail customer and staff perceptions of service quality factors. This resulted in a three dimensional construct of process/outcome, subjective/objective and soft/hard factors (Blanchard and Galloway, 1994). Cuthbert (1996a; 1996b) identified seven factors rather than five as the SERVQUAL model was composed of several variables from different dimensions, meaning that variables did not load onto the expected dimensions identified in the original SERVQUAL model.

Consequently, the findings of this study partly agree with the findings of Cuthbert (1996a; 1996b) and those of Carman (1990), as far as the composition of the dimensions making up the measurement model is concerned; more specifically the fact that the dimensions are made up of quality determinants from several different dimensions which did not load onto the five dimensions of SERVQUAL as one would expect.

This argument is also supported by several other researchers including Sureshchandar et al., (2002), Jabnoun and Al-Tamini (2003), Luk and Layton (2004), Landrum and Prybutok (2004), Avkiran (2004), Bahia and Nantel (2000), and and Gounaris et al. (2003)..

The study of An and Noh (2009), to measure the impact of the in-flight service quality on customer satisfaction, was based on an instrument comprised of the 22 items of the SERVQUAL instrument and 11 additional items, which resulted in the identification of two sets of factors, one composed of six dimensions and the other of five, to measure service quality in the prestige and the economy classes, respectively. The factors in both models were different from those identified in the SERVQUAL instrument. Specifically, for the prestige class, factors included alcoholic and non-alcoholic beverages, responsiveness and empathy, reliability, assurance, presentation style of food and food quality. For the economy class, factors were responsiveness and empathy, food quality, alcoholic beverage, non-alcoholic beverage, and reliability. One of the major findings of this study was that people with higher income and professional status might often experience higher service quality, hence are more sensitive to its assessment. Therefore, the criteria against which such groups of people assess service quality can be different from those with lower income and professional status. It was not possible to check if these findings were in accordance with the findings of this study as the demographic variables related only to sex and to the educational level of the respondents. With regard to the income level and the professional status of the respondents there was no significant finding to report, since both of these variables were not included in this study and relevant data were not collected, therefore they cannot be compared to the findings of the study by An and Noh (2009).

The variables included in service quality measurement instruments might also vary according to the service encounter. For example, Carman's (1990) study of hospital services employed 40 items and Bouman and Van der Wiele (1992) used 48 items in their car service research. Carman (1990)

claimed that SERVQUAL's dimensions were not completely generic. Moreover, Cronin and Taylor (1992, p.65) suggested that the items used to measure service quality in one industry might be different in another. They went on to suggest that "perhaps high involvement services such as health care or financial services have different service quality dimensions than low involvement services such as fast food or dry cleaning."

Moreover, the results of this study agree with the opinions of several researchers (Carman, 1990; Teas, 1993a, 1993b and1994; Fisk et al., 1993; Buttle, 1996) that SERVQUAL cannot be adopted as is, but needs several modifications that should take into consideration the different characteristics from one industry to another and the different characteristics of one country (or society) to another, in order to ensure reliable and valid service quality evaluation. Specifically, Cronin and Taylor (1992) stated that the SERVQUAL items were not universal and that the scale items might be different across different service industries. According to Zhou's (2004) study of the dimensional structure of service quality in the banking context of China, there were different expectations and perceptions of service quality across different cultural groups, implying the idea of modifying service quality measurement instruments accordingly.

Four or five items in each dimension cannot capture the variability within each dimension, as suggested by Buttle (1996). This means that to have an objective measurement score for each dimension and hence, for overall service quality, the instrument needs to obtain information from additional factors. Parasuraman et al. (1991a, p.445) accepted that some specific items that "should be similar in form to the existing SERVQUAL items" could be added to complement the instrument. Bearing in mind the aforementioned, the author did not construct the questionnaire solely based on SERVQUAL or SERVPERF items, but also took into consideration the separate characteristics of the banking industry in Cyprus, the models and criteria actually used in Cyprus to evaluate service quality and the expert opinions of those interviewed to develop the items included in the questionnaire used to collect data for this study.

6.2.1 Dimension 1: Employee Proficiency

Dimension 1 includes more responsiveness items, fewer reliability and assurance items and one item from empathy. The composition of this dimension relates to the work of Parasuraman et al. (1994a), who suggested that the assurance, responsiveness and empathy factors of the original SERVQUAL model would appear to load onto one dimension. This is also related to the work of Gronroos (1990), demonstrating how service is delivered by examining the interactions between employees and customers during service encounters. Gronroos (1990) described these items as falling under the area of functional quality. Blanchard and Galloway (1994) explained that, when assessing quality levels, customers consider as much more important the process elements of the service rather than the outcome. For example, process items identified by Blanchard and Galloway (1994), such as "willingness to help", "way staff treat customers", and "staff listen" relate to items in this study such as "AQ25: Employees of the bank you deal with most are always willing to solve your problems", "AQ26: Employees of the bank you deal with most give customers personal attention", "AQ21: Employees of the bank you deal with most are always available to respond to your requests", and "AQ22: Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers", strengthening further the notion that this dimension relates more to the "how" the service is performed.

The importance of employees was also supported by Govender (1998), in his study to determine the effects of socialization strategies on customers' perceptions of service quality in banks in South Africa. Govender (1998) claimed that customers' perceptions of employee service quality were evaluated as the most significant factor of overall service quality. The results obtained here partly support the conclusion of Lee et al. (2000) that responsiveness would be a more important factor in people-based industries, such as financial services, whereas tangibles would be more important in facility/equipment based industries.

Additionally, the composition of the "employee proficiency" dimension identified here is related to the customer care dimension identified by Robledo (2001) in his study to determine the criteria against which customers evaluated services in three airline companies in Spain. Robledo (2001) explained that the "customer care" dimension as identified consisted of responsiveness, empathy and assurance items that described the abilities and attitudes of employees to provide a more personal service to customers.

Moreover, the 'employee proficiency' dimension identified in this study relates to one of the dimensions (human skills) of the work of Jabnoun and Al-Tamini (2003), who examined the service quality construct for banks in UAE. They identified a three-dimensional (human skills, empathy, tangibles) construct composed of 22 items. The human skills dimension was composed of 12 items, six of them belonging to the assurance dimension, three belonging to the reliability dimension, two to responsiveness and one to the empathy dimension of the original SERVQUAL instrument. Jabnoun and Al-Tamini (2003) explained that the vast majority of the items loading onto this factor dealt with employees' abilities to provide the desired services to customers. Evidently, the items loaded onto Dimension 1 of this study deal with how employees serve customers during the service encounter, therefore the author termed this dimension "employee proficiency", referring to employees' skills, abilities, know-how, competence and expertise to serve customers better.

The importance of human factors was also stated by Strawderman and Koubek (2008) in their study to develop a modified instrument to measure service quality that included human factors at an on-campus health clinic. They emphasized the dominance of human action in the service system of an organization and explained that humans are on both sides of the equation, as customers as well as employees. As for employees, according to the authors, some benefits of improved usage of the human factor in any organization included increased productivity, decreased task time and cost, decreased errors and increased accuracy.

Moreover, this dimension explains the largest part (29.67% after rotation) of the variance identified in this study's model. It best explains the construct of service quality levels in the banking industry of Cyprus. In other words, when customers evaluate the service quality level they experience from the bank they deal with, they first contemplate the items making up this dimension. Once more, these findings agree with Jabnoun's and Al-Tamini's (2003) suggestion that their human skills dimension explains more of the variance in overall service quality than the other dimensions, hence is more significant. Items AQ25 "Employees of the bank you deal with most, are always willing to solve your problems" and AQ21 "Employees of the bank you deal with most, are always available to respond to your requests" had the highest correlation coefficients, with 0.759 and 0.738 respectively. Both items were from the SERVQUAL's responsiveness dimension and they also loaded onto this dimension which also comprises more of the responsiveness items in this study. This strengthens the author's opinion that items included in this dimension correspond to customers' interpretation in dealing with the service they receive from employees during the service encounter.

Finally, it is important to note that all items loaded onto the "employee proficiency" dimension, despite where they loaded onto the original SERVQUAL dimensions, dealt with how employees serve customers, how they react to customer requests, how they react to the problems raised by customers, and whether they possess the necessary knowledge, skills and abilities to offer prompt and competent service. This further justifies the name used to describe this dimension: "employee proficiency".

6.2.2 Dimension 2: Convenience

Dimension 2 includes more by way of tangibles (even though these were added by the author and not included in the original instrument) and empathy items as well as one item from both the responsiveness and reliability dimensions of the original instrument. This dimension loaded second onto the model as it explained an additional 16.41% (after rotation) of the total variance. The author holds that this dimension corresponds more to the empathy dimension and less to the tangibles

dimension of the original instrument of Parasuraman et al. (1988). Empathy involves access, communication and understanding the customer, all three of which were included in the first instrument (composed of ten dimensions) developed by Parasuraman et al. (1985). Moreover, these findings relate to the access and communication dimension of the BANKSERV model developed by Avkiran (1994) and confirm Lee et al.'s (2000) conclusion that tangibles (as described in the original SERVQUAL instrument) are perhaps more important to facility/equipment industries.

As explained in Chapter 5, the analysis of the items composing this dimension reveals customers' evaluations about how easy a company makes it for them to find and receive an appropriate level of service. Items AQ4, AQ3 and AQ6 are directly related to convenience and access. Item AQ10 relates to communication. Item AQ13 relates more to understanding. Not surprisingly, items AQ4 and AQ3 had the highest correlation coefficients (0.848 and 0.769 respectively) in this dimension, while item AQ6 loaded fourth with a correlation coefficient of 0.652. All three items further reflect customers' interpretation of how important to them is access or, in other words, how convenient it is for them to obtain the services they want when they want. Bearing all this in mind, the author named this dimension "convenience".

6.2.3 Dimension 3: Professionalism

Dimension 3 includes two items from the reliability dimension and one from the assurance dimension of the original SERVQUAL model (Parasuraman et al., 1988). It follows that this dimension corresponds more to the reliability dimension of the original SERVQUAL model. Zeithaml and Bitner (2003) explained that the company would deliver on its promises, such as the promise to get it right the first time and the promise to provide reliable service in the sense of keeping accurate records of customer transactions and, of course, keeping those transactions confidential. According to Parasuraman et al. (1988), customers viewed this dimension (reliability) as the most important of the five that make up the original SERVQUAL model. However, later Zeithaml and Bitner (2003) implied that, even though

reliability was found to be the most important dimension in the U.S.A, the importance of each dimension might be affected by cultural differences and might change depending on the industry being studied. As far as this study is concerned, this dimension loaded third onto the model as it explained an additional 11.32% (after rotation) of the total variance, confirming similar opinions of authors such as Carman (1990) that the importance of dimensions is influenced by the context in which a model is tested.

Items AQ9 and AQ8 with correlation coefficients of 0.848 and 0.821 loaded first and second respectively onto this dimension. Item AQ11 loaded third with a correlation coefficient of 0.625. Item AQ9 'The bank you deal with most keeps accurate records of your transactions' shows that customers expect their bank not to make mistakes with their records and transactions and they evaluate this as the most important factor in this dimension. Item AQ8, 'The bank you deal with most, 'gets it right first time' when performing the service you request', convincingly adds to the perception of customers that their bank should not make any mistakes during the service encounter or when the bank is performing any service they request. Item AQ11, 'The bank you deal with most, keeps your transactions confidential', demonstrates the perception of customers that their bank should not reveal their transactions to anyone. Evidently, customers in Cyprus separated the two items (AQ9 and AQ8) coming from the reliability dimension of the original SERVQUAL model and item AQ11 coming from the assurance dimension of the original SERVQUAL model and placed them in a separate dimension that basically shows what customers expect of their banks with regard to the accuracy of the services performed and confidentiality of their records and transactions.

The author holds that these three items taken together are not only a requirement of bank customers, but are required by all customers from the organization they deal with. Even when you order a pizza you expect to get what you order, within the specified period of time and you expect that this transaction will remain confidential. Of course confidentiality (and perhaps this is why it was loaded third onto the dimension) depends on the type of transaction, hence money transactions, phone bills itemizing the

numbers a customer called during a period of time, air-flight tickets, salary slips received from an employer will be more important in customer minds than the record of ordering a pizza. Nevertheless, accuracy when performing requested services and confidentiality of transactions are important for customers and as such the author decided to name this dimension 'professionalism' since both of these elements are expected of any professional organization nowadays.

Additionally, the term 'reliability' used by Parasuraman et al. (1988) in the original SERVQUAL model could not be used since the other items of the original reliability dimension loaded onto dimension 1 'employee proficiency' of this study. It is important to note that this dimension might correspond to the 'credibility' dimension of the BANKSERV model, as identified by Avkiran (1994). Furthermore, Newman (2001) stated that the most important finding of a study pioneered by a major UK bank (the study was referring to a nationwide execution of the SERVQUAL instrument) was that when factors, which are considered as vital by consumers (such as reliability of service delivery) are low, then soft quality factors, irrespective of the level at which they are assessed by consumers, cannot make up for the difference. Reliability, as explained earlier in this section, refers to customer perceptions of accuracy and confidentiality, which further supports the author's claims of the importance of the 'professionalism' dimension as developed in this study. Further, this dimension is related to the 'reliability/assurance' dimension identified by Zhou (2004) in a study of banking services in China. The most important dimension in this context was assurance, since the author suggested "providing reliable banking transactions with promises of assurance seems to be the most appealing service criterion to the targeted consumers" (Zhou, 2004, p.542).

Finally, the author holds that this dimension includes both technical and functional aspects, as identified by Gronroos (1982). Through the technical dimension (or outcome quality of the process) of service quality customers perceive what they actually receive as the outcome of the process in which resources have been used. Here, the 'what' refers to the confidentiality of transactions and the accuracy of

service received after the service encounter. Both can be seen as an outcome of the service encounter and both are evaluated *after* performance. The functional aspect of 'how' the service is provided is evaluated *during* the service delivery process. Here, the 'how' refers to the accuracy of the services performed and the accuracy of the transactions during the service encounter.

6.2.4 Dimension 4: Assurance

Dimension 4 includes two items from the assurance dimension and one from the empathy dimension of the original SERVQUAL model (Parasuraman et al., 1988). It follows that this dimension corresponds more to the assurance dimension of the original SERVQUAL model. Assurance, as explained in the literature review chapter, refers to the ability of employees to build trust and confidence with customers, to be courteous to customers and show an attitude of acting in the customers' best interests.

Zeithaml and Bitner (2003) stated that this dimension was more important to service providers whose services entailed higher levels of risk to customers. Such services include for example banking, insurance, brokerage, medical and legal advice. Nonetheless, this dimension was loaded fourth onto the model as it explained, relative to the other dimensions, the lowest (11% after rotation) percentage of variance of the total variance explained by the model and, as such, the author cannot support the argument of Zeithaml and Bitner (2003) about the importance of this dimension to bank customers.

Irrespective of the fact that two items from the original assurance dimension loaded onto this dimension, the item from the original empathy dimension (item AQ29) loaded first with a correlation coefficient of 0.732. Subsequently, the items from the assurance dimension. It is important to note that item AQ28 was modified by the author since the assurance dimension of the original SERVQUAL model was referring to banks and not employees. In a way, it can also be seen as a new item. Item AQ28 loaded onto dimension 4 with a correlation coefficient of 0.693 and item AQ27 from the original assurance dimension of the SERVQUAL model loaded with a correlation coefficient of 0.621. Item AQ29

'Employees of the bank you deal with most, know what your needs are' could be interpreted in the mind of respondents as an assurance item since customers may expect employees of the bank to know their needs and therefore they could rest assured that someone else (the employees in this case) cares about them, understands their needs and would offer them the best possible solution to satisfy their needs. Item AQ28, 'Employees of the bank you deal with most, keep your records and transactions confidential' exhibits customers' belief that not only should the bank keep their records and transactions confidential but also the employees who have access to customers' records and transactions. This pertains to the security aspect of the assurance dimension. Item AQ27, 'Employees of the bank you deal with most are helpful and courteous to customers', relates to the courtesy and the willingness to help customers that is expected from employees during the service encounter.

The author holds that, bearing in mind the preceding explanations, all three items relate to the assurance dimension of the SERVQUAL model. Also one should bear in mind that the assurance dimension of the original ten dimensions making up the SERVQUAL model included competence, courtesy, credibility and security and as such the dimension developed in this study relates to these factors, especially to courtesy, security and competence in the sense that knowing your customers' needs and being able to satisfy them assumes know-how, skills and abilities to perform this task. Although two assurance items loaded onto dimension 1 and one onto dimension 3 of this study, the author named dimension 4 'assurance' since the items loading onto it define better the construct of assurance.

The 'assurance' dimension of this study relates to the 'assurance' dimension of the study performed by Zhou (2004) to measure consumer satisfaction and other consumer intentions with respect to banking services in China. However, the findings of this study do not agree with Zhou's conclusion that the most important dimension of the model developed in his study was assurance since, as stated earlier,

dimension 1 'employee proficiency' seems to be the most important one in this study as it explains the largest part of the total variance.

Before discussing the results of Hypothesis H_2, the author believes that it worthwhile to discuss some issues arising in part from the preceding analysis:

The model derived here is composed, almost in total, of intangible items with the exclusion of items AQ3 "The bank you deal with most has adequate parking facilities" and AQ4 "The bank you deal with most is conveniently located" which refer to tangible items even though AQ4 is more of a convenience factor. In the author's opinion, employees are categorized under the intangibles because the quality determinants referring to employees deal with their skills, abilities, knowledge, competences and not with their physical appearance. As such, the intangible factors found in all the dimensions, except items AQ3 and AQ4, were found to be more important than the tangible ones, a conclusion which is in line with the position of Kara et al. (2005), who examined the tangible and intangible determinants of service quality in the non-profit health-care sector in Turkey.

The non-appearance of tangibles as a separate dimension in this study, as was the case in other earlier studies, may also be due to the fact that people's expectations and perceptions of service quality change over time. Tangibles were an important factor 20 years ago, while nowadays consumers expect a certain level of physical appearance and facilities as standard in any business. Additionally, perhaps tangibles are more important in other service sectors than in banking. At the end of the day, how much more could customers be impressed by computers and technology since today the great majority of consumers, especially in developed countries, owns a computer, a satellite box, an electronic organizer and many more technology gadgets.

Lastly, this finding suggests that the investment in tangibles does not necessarily contribute to higher overall service quality levels as perceived by customers. Hence, in order to achieve higher levels of service quality, more efforts should focus on the other dimensions, such as employee proficiency, which, as discussed in this study, has a greater influence on customers' evaluations of service quality.

The findings of this study suggest that responsiveness, empathy and assurance items as categorized based on the descriptions of Parasuraman et al. (1988) are more important than tangibles and reliability items. This assumption supports the position of Chowdhary and Prakash (2005), that empathy, responsiveness and assurance factors are more important in customers' evaluations of service quality in labour-intensive industries, while tangible and reliability factors are more important in capital-intensive industries. Banks, even though they utilise much of their resources on equipment and technology, are dependent on their employees and their skills, abilities, knowledge and competences and as such, banks are more of a labour-intensive sector. The conclusion drawn here is supported by the data analysis presented in chapter 5, since the number of items loaded onto dimension 1 was almost equal to the number loaded onto the other three dimensions taken together, and dimension 1 accounted for the greatest part of the overall variance explained by the model. Even the two reliability items presented in dimension 1 referred to employees' abilities and not to the bank and its assets. Therefore, the author argues that the findings presented here, confirm, to a great extent, the conclusion of Chowdhary and Prakash (2005).

The variance explained for the service quality model resulting from this study (68.53%) is deemed satisfactory when compared to similar studies. For example, Cronin and Taylor's (1992) research model explained 37.4% of the variance, whilst Wright's (1996) model had a stated variance of 52.1%. Moreover, Parasuraman et al.'s (1988) study resulting in the original SERVQUAL model had an explained variance of 56% in the banking sample.

In conclusion, the author believes that the results obtained from the model resulting from this study should be accepted as they verify its main purpose, which was to develop a new model that would accurately and reliably measure the service quality construct in the banking sector of Cyprus.

It was found that the reliability items from the original SERVQUAL model did not concentrate on one factor as in the original SERVQUAL model (Parasuraman et al., 1988). Furthermore, from the five items of the original reliability dimension only three are part of the solution presented here. Namely, items AQ13 which loaded sixth onto dimension 2, 'convenience', and items AQ 9 and AQ8 which loaded first and second onto dimension 3, 'professionalism'. The additional reliability items were added; even if in some form they did belong to the SERVQUAL instrument, they were modified to such extent by the author that they could be considered as new; namely, items AQ17, AQ18 and AQ19 which loaded seventh, ninth and tenth respectively onto dimension 1, 'employee proficiency'. These lead the author to believe that reliability is a common concern for bank customers in Cyprus since the six items relating to the reliability dimension loaded onto three out of the four dimensions exhibited in this study.

The spread of reliability items in three out of the four dimensions of the solution presented in this study suggests that the quality of the services and products offered in a bank setting are part of the whole service package offered by the organization, hence, all members of such an organization are involved in the service delivery process. As was explained in the literature review, reliability means that the company will deliver on its promises, such as promises relating to service delivery, "doing things right the first time", problems and complaints handling and resolution with accuracy and competence (Zeithaml and Bitner, 2003). This conclusion offers some support to Parasuraman et. al's (1990) argument that reliability appears to be the guiding philosophy in all aspects of the service construct.

Some additional findings worth mentioning are as follows:

- Two of the dimensions composing the instrument consisted of statements regarding employees of the bank and the other two consisted of statements relating to the bank as an organization. The most important seems to be dimension 1, "employee proficiency", as explained earlier in section 6.2.1. In contrast, in the five dimensions of the original SERVQUAL instrument in only one, the "tangibles" dimension, do the statements included relate to the organization. All other items with regard to employees and the organization are mixed and can be found in the other four dimensions of the original SERVQUAL instrument. This finding implies that customers' service quality perceptions may be different from industry to industry and perhaps from one time period to another. Moreover, it supports the notion expressed in this study and by other researchers, as explained before, that the variables or items to be included in any service quality measurement instrument should consider specific variables existing in the industry being investigated.

- As the outcome of the service encounter was not measured in this study, one cannot state with certainty that customers place more emphasis on the service delivery process and rate it as more important than the outcome of the service transaction. In other words, does the outcome of the service influence customers' perceptions of the service quality experienced? Whatever the answer, it is supported by the findings of this study that the process of how the service is delivered plays a major role in forming customers' opinions of service quality.

6.3 Discussion of the Result of Hypothesis H_2

Hypothesis H_2: *' The reliability of the measurement instrument and the reliability of each dimension of the construct will meet the appropriate levels of statistical significance and will effectively capture the determinants of customer service quality in the Cypriot banking industry.'*

The reliability coefficients for the model as a whole and for each of the dimensions composing the model were high, indicating high internal consistency among items within each dimension. The results which were analysed in section 5.3.2.2 support that the model developed as part of this study and the items included in each dimension appear to be consistent and to measure the same thing: service quality.

High scale reliability, as indicated by the model developed in this study, offers support to the selection of one scale, employing perception only items, to measure service quality in the banking sector of Cyprus. The development of alternative measures of service quality was suggested by Parasuraman et al. (1991a) and in this respect this study offers empirically another feasible alternative to their recommendation and SERVQUAL. This scale or model offers another tool to measure service quality in the banking sector in Cyprus. This result also supports the use of a shorter tool than SERVQUAL or other longer tools used and as such it offers another solution as a diagnostic and measurement instrument. Obviously, the resulting scale composed of 23 items compares favourably with the two-scale SERVQUAL approach as it offers the same diagnostic value and takes half the time to complete.

The present results support further the work of earlier researchers that the use of an instrument employing only perception items is more efficient and offers more validity. To remember a few: SERVPERF, which was developed by Cronin and Taylor (1992), uses the 22 items of the perceived performance scale as used in the SERVQUAL instrument. Researchers such as Carman (1990), Bolton et al. (1991) and Cronin and Taylor (1992), believed that SERVPERF was more efficient and offered greater validity in measuring service quality. As explained by Jain and Gupta (2004), SERVPERF made things simpler by reducing the items to be measured by 50%, which added to the efficiency of the tool over SERVQUAL. They also added that SERVPERF explained more of the variance in the overall service quality measured as it utilized a single-item scale. Researchers such as Zhou (2004) and Jabnoun and Al-Tamini (2003), developed instruments based only on perception items to measure

consumer satisfaction and service quality in China and the UAE respectively. Finally, the superiority of SERVPERF over SERVQUAL was admitted in a study by Boulding et al. (1993, p.24), in which Zeithaml, one of the authors of SERVQUAL took part and stated that "…our results are incompatible with both the one-dimensional view of expectations and the gap formation for service quality. Instead, we find that perceived quality is directly influenced only by perceptions (of performance)".

6.4 Suggestions for Management

i. The importance of employees

Perhaps, the most important implication emerging from this study is the importance of employees in the effort to offer high quality of services in banks. It was found from the results of factor analysis that out of the four dimensions composing the solution, two were completely composed of items dealing with the employees of the bank and the other two with the bank itself. However, it seems that dimension 1, "employee proficiency", explains more of the total variance (49.39% before rotation); it is composed of 11 statements concerning employee behaviour, skills, abilities and know-how covering four (except tangibles) of the original dimensions identified by SERVQUAL. This means that, for customers, service quality relies heavily on the attitudes, behaviour and performance of the employees they come into contact with during a service encounter. It is clear how critical this employee-customer contact is for providing high quality of service.

Berry et al. (1988) maintained that offering high quality service depends, largely, on the willingness and ability of employees to perform at specified levels that would contribute to the closure of the service-performance gap. In 1994, they considered the importance of employee research to improve service offerings. According to Berry et al. (1994), employees, as recipients of internal service, can evaluate internal service offerings, which in turn influence external service offerings. What is more, they can offer remedies to reduce the conditions that limit service quality and finally, because front-line employees

come into contact with customers more frequently than support departments' employees, they can give early warnings of possible shortfalls in the service delivery system.

Schneider and Bowen (1993) explained how valuable employees were for service organizations, since the more positive they are about their organization's service orientation, the more positive are customers' service experiences. They explained that the internal service orientation of employees is transmitted to customers mainly because of the psychological and physical proximity that exists between them during a service interaction.

Moreover, Schneider (1994), in another study, concluded that employees are so valuable that they should not only be used as a tool to complete service delivery but more importantly they should serve as a strategic diagnostic resource for service organizations. Supporting further these conclusions, Lee et al. (2000) recommended that management of people-based companies should focus more on the responsiveness factor (and as explained here, the employee-customer service encounter) and less on the tangible factor, by improving employees' responsiveness, improving their motivation, improving their selling skills and offering attitude and behaviour training.

Furthermore, this finding is also in line with Levesque's and McDougall's (1996) conclusion that the employee-customer relationship creates positive attitudes among customers towards their bank. Curry and Penman (2004) further supported the importance of the human element during the service interaction when compared to the technology element and noted that to achieve customer satisfaction (which is a result of high levels of customers' perceptions of service quality), the interaction between the banker and the customer has to occur on a regular basis. Technology, new equipment, tangibles will not suffice to achieve customer satisfaction on their own, without employee involvement. Employees' competence and personal relationships, according to Gounaris et al. (2003), might influence customers' perceptions of bank reliability. As they explain further, "the bank benefits from the personal

relationships that its employees build with customers, since the bond of trust that develops between them, as a consequence of the personal relationship, is, indirectly, conveyed to the relationship between the bank and the customer", (Gounaris et al., 2003, p.185). Gounaris et al., (2003) went on to suggest that these relationships were very important to customers since customers might be willing to trade convenience for personal service.

This position was also supported by Julian and Ramaseshan (1994), who studied the role of customer-contact personnel in the marketing of a retail bank's services and found that "the relationship between the salesperson and the customer is perceived as being of great importance in the marketing of the retail bank's financial services" (p.34). To underline further this importance, it has been suggested that management add into employees' job descriptions tasks referring to the service quality expectations of customers, in order to show how important they are for both the organization and its employees .

It has been further suggested that bank management design special training programmes and motivate employees in such a way so that they will be in the best position to convey confidence to customers, to be understanding of their needs and serve them with a high level of competence. Additionally, bank management should, as Bowen and Hedges (1993) claimed, reward superior service performance in the same way as superior financial performance, since this is the ultimate proof that an organization has truly embraced a philosophy of service quality. By performing these actions, bank management would pass a significant message to employees as to what is expected of them in terms of offering high quality of services to customers. Employees should view themselves as valued members of the service quality chain of their banks and embrace service quality expectations of customers as part of their daily tasks to achieve success and provide high levels of service quality. The author believes that a statement by Schneider (2004, p.149) encapsulates the considerable value of employees in service organizations: "Everything that a business does is borne in the heads of employees, and what is in their heads will largely determine how they behave."

ii. Challenges to managers

From the moment a customer enters a bank branch, that customer is influenced by everything he/she sees, feels, and listens, all being some of the elements that will contribute to his/her experience. Even conversations between other customers and contact employees may influence his/her experience. Therefore, bank managers should not only care about the physical surroundings in the branch and the performance of the front-line employees but also how customers are being treated from the moment of entering a bank branch. For example, a long queue is a problem for the front-line employee (the teller who at that time is dealing with another customer) or the supervisor who is sitting in the bank enjoying coffee or a sandwich.

A major challenge to bank managers is to take into serious consideration customers' expectations and perceptions of what constitutes a high level of service quality when it is being evaluated. It has been argued since the formation of the original SERVQUAL instrument by Parasuraman et al. (1988) that service quality has to be judged from the customers' side. The importance of the mismatch between customer expectations of the service and company/management understanding of them is explained in the first gap of the original SERVQUAL model. Specifically, this gap checks the difference between customer expectations and the perceptions management has about customer expectations (Parasuraman et al., 1985), or, as Zeithaml and Bitner (2003) highlight, provider gap 1 exists because of the difference between customer expectations of the service and company/management understanding of those expectations.

Perhaps, related to this gap is the finding presented in section 5.2.4 of this study regarding the lower mean scores for a number of quality indicators by the 'no education/elementary school' group as compared to the other education levels and more specifically to the 'graduate degree' group. Connected to this, is also the finding of the differences found between the mean scores of males and females to almost all quality statements. Specifically, males tended to score lower their perceptions of

service quality compared to females. Management needs to look into these differences and pinpoint the specific reasons why such differences exist in order to close the gap. Overall, management could improve this ability by developing strategies, such as improving their marketing research, enabling better communication channels with their employees and reducing the levels of management, which create distance between customers and top management (Zeithaml and Bitner, 2003).

Schneider and Bowen (1993) suggested that, when employees' work is supported by the organization and their immediate supervisors, they can offer the required service to customers so as to satisfy their demands to the highest degree possible. Schneider et al. (1998) stated that when employees work in an organization where their efforts to offer high quality service are supported by their colleagues, managers and the organization, customer perceptions of service quality will be positive. As a result, managers must not only emphasize service quality efforts, create a positive service climate, train, compensate and reward employees for delivering excellent service, but they should also ensure that the appropriate working conditions, support mechanisms and cooperation are in place for the service level employees to offer excellent service.

Schneider (2004) further suggested specific measures (for both customers and employees) that managers should use as service quality indicators. Some of the measures for employees included the extent to which employees are fully trained before assuming a service position post, the immediacy of filling service contact jobs when they become vacant, the monitoring of the customer-contact behaviour of employees, employee absenteeism and turnover, the degree of role ambiguity, stress levels and the service climate experience.

The importance of fostering the best possible service during a service encounter between contact personnel and customers and its high value for customers is one of the most important findings of the study of Avkiran (1994), and the development of the BANKSERV model. Avkiran (1994) advocated that

for the great majority of customers, staff-customer contact is of utmost importance for high customer service quality. Furthermore, Blanchard and Galloway (1994, p.18) clearly supported the importance of the process elements of the service, stating: "They (customers) are seeking a responsive service with a high level of assurance. One that gives an impression of competence and credibility, one that can be trusted". As discussed earlier, the findings of this study advocate the importance, for customers, of how service is delivered. Moreover, the importance of staff-customer contact was further supported by Curry and Penman (2004, p.339) who pointed out: "The banker and customer have to interact on a reasonably regular basis for true customer satisfaction to be realised. Development of this relationship has to be regarded as an investment for the future in terms of retaining customers over time, gaining new ones from competitors and generating positive word of mouth recommendations, which are all key to long term service success".

Furthermore, Lee and Hwan (2005, p.646), in their study of the relationships among service quality, customer satisfaction and profitability in the Taiwanese banking industry, concluded that "service quality influences purchase intentions more than does customer satisfaction". This is a significant finding since it shows the importance of service quality for higher profitability in banks. Therefore, it is of great importance for bank managers to view perceived service quality from the customers' perspective and formulate improvements when needed on a continuous basis.

iii. Investing in a continuous service quality programme

The present study helps in the area of service quality measurement and as such it provides bank managers with a useful measurement tool to help them assess progress and determine any necessary improvements on a continuous basis. Schneider and Bowen (1993) claimed that, not only must service contact personnel be committed to service quality, but the whole work place in general. Emphasis should be placed not only on customers but on service quality-oriented human resource management policies and practices. They also stated that organizations should not experiment with what customers

might want and about which human resource management practices to implement to achieve excellent service offerings but ask customers about what is good service for them through surveys, focus groups or other methods.

The author suggests the use of this study's service quality measurement instrument on a continuous basis to help bank managers identify customers' perceived service quality, thus enabling them to focus their efforts to ascertain that customers' expectations are satisfied.

The continuous use of this instrument should also help managers to identify areas of improvement, allocate resources accordingly and make strategies more effective in order to maintain or improve service quality. The author further suggests that the model should be revised from time to time to ensure that it correctly captures customers' expectations as to what constitutes quality of service and hence measures what it is intended to measure. Finally, the results of service quality measurements could be used as goals of a marketing programme aimed at communicating the service quality standards of a specific bank. Of course, the implementation of such a continuous service quality programme should be within the limits of budgetary concerns and of a cost/benefit analysis.

In addition to the continuous evaluation of customers' perceptions of service quality, bank managers should ensure that service quality standards are upheld by all employees, especially contact staff. One effective way to achieve this is to incorporate service quality measurements into branch performance evaluations and into personal performance evaluations so as to align better customer service and increased performance through higher sales and profits, which are always a management and stockholder concern.

iv. *A comprehensive view of service quality in banking*

It is important to note that service quality perceptions of customers do not relate only to one area of evaluation, specifically the 'moment of truth' of a service encounter. Rather, their perceptions include

several interactions and, in all cases, the level of service quality offered should be demonstrated in a consistent manner. Any bank service, or most of them, needs additional activities and processes by other staff members that affect the quality of the delivered service in its totality. For example, a teller at a bank branch, under management guidance, promotes a specific product, such as a new housing loan, to customers. Suppose that the customer is satisfied by what he/she hears and is interested to obtain such a loan. The teller will then refer the customer to the appropriate department or loan officer that will take it on. If that department or loan officer does not match the level of service offered by the teller, or in any other way does not offer a level of service quality as expected, evidently, the customer will be unhappy and of course dissatisfied with the service quality he/she was offered even though the initial contact with the bank was more than positive.

Clearly, the customer passes through a series of moments every time he/she enters a bank branch asking for service. From the moment the customer is in a queue waiting to be serviced by the teller, until he/she finally receives what is required, the customer observes and passes through successive encounters that will contribute to his or her experience. Therefore, bank managers should not only be concerned with how the teller services the customer, but they should be greatly concerned and care with the total performance of all staff members that will come into contact with that customer during the service encounters. As a result, bank managers should treat any one interaction with a customer as part of a broader service package that will provide a total solution to satisfy a customer's needs. After all, banks, especially in Cyprus, where they provide a range of services not only related to pure banking operations but in other areas, such as brokerage and portfolio management services, investment management, insurances including life, motor, house and others, put a lot of effort to transfer their customers not only from one department of the bank to another, but also, from one company of the group to another, in order to retain the customer longer and minimize the possibility of losing the customer to the competition.

v. Evaluation of Customer loyalty

Customer loyalty can be inferred in this study by the cross tabulations of item "How many years have you been using the services of the bank you deal with most?" with the quality indicators included in the instrument presented here. Presented in Table 6.1 below, is the cross tabulation with the quality indicator for the overall quality of services customers receive from the bank they deal with most. Customers' responses to the ratings of "agree" and "strongly agree" are 58.9% and 19.2% respectively, with the highest percentages presented at the 16+ years of service with 17.5% and 6.8% respectively. Thus, future research should examine the link between high levels of service quality, customer satisfaction, and customer loyalty which would be of great importance for practitioners as well.

Table 6.1

The overall quality of the services you receive from the bank you deal with most is excellent		How many years have you been using the services of the bank you deal with most?				Total
		Less than 5	5-10	11-15	16+	
Strongly disagree	Count	1	0	0	0	1
	% of Total	,3%	,0%	,0%	,0%	,3%
Disagree	Count	0	0	1	0	1
	% of Total	,0%	,0%	,3%	,0%	,3%
Disagree Slightly	Count	0	1	0	1	2
	% of Total	,0%	,3%	,0%	,3%	,7%
Neither agree or disagree	Count	5	2	6	4	17
	% of Total	1,7%	,7%	2,1%	1,4%	5,8%
Agree Slightly	Count	7	19	9	8	43
	% of Total	2,4%	6,5%	3,1%	2,7%	14,7%
Agree	Count	32	51	38	51	172
	% of Total	11,0%	17,5%	13,0%	17,5%	58,9%
Strongly agree	Count	11	15	10	20	56
	% of Total	3,8%	5,1%	3,4%	6,8%	19,2%
Total	Count	56	88	64	84	292
	% of Total	19,2%	30,1%	21,9%	28,8%	100,0%

6.5 Summary

The author has examined in this chapter the findings of this study, identified in chapter 5, contextualising these findings in the body of literature discussed in chapter 3. The chapter has also examined some managerial issues that can be implied from the discussion of the findings. Theoretical conclusions based on the research findings, study limitations and recommendations for both practitioners and future researchers are discussed in the following and final chapter.

CHAPTER 7: CONCLUSION, STUDY IMPLICATIONS AND RECOMMENDATIONS

7.1 Introduction

The major aim of this study was to evaluate the SERVQUAL model and assess whether it could be applied in the context of the Cypriot banking industry, and consequently establish a reliable and valid service quality measurement instrument for banks operating in Cyprus. The final version of this instrument consists of 23 items included in the four dimensions that make up the model, namely, employee proficiency, convenience, professionalism, and assurance. Bank managers, especially those with the responsibility for service quality levels and their improvement, could apply the model developed here to monitor customers' perceived service quality over time and be in a position to detect changes, potential pitfalls, and thus take corrective action when necessary.

The major contributions of this study are basically twofold. Firstly, it contributes further to the theoretical background and on-going discussion surrounding the development of a service quality instrument to capture more accurately the service quality construct that characterizes a given industry. Secondly, the results obtained in this study present a reliable and valid instrument that bank managers can use to evaluate service quality levels in the banking sector of Cyprus.

The objectives of this chapter are to pinpoint the importance of the study findings, discuss the possible limitations of this study and suggest recommendations for future research.

7.2 Conclusions of Hypotheses and Research Questions

This thesis has identified the dimensional structure of service quality in the banking industry of Cyprus. The data collected was analysed and the results indicated the existence of four major dimensions of service quality.

✓ The *employee proficiency* dimension, demonstrating the importance of employees in service delivery during interactions with customers and emphasising the value of their skills, knowledge, abilities and competence in delivering high quality services to bank customers.

✓ The *convenience* dimension, demonstrating the importance for banks to have branches in convenient locations, offer adequate parking facilities and operating hours, to keep their promises, to keep customers informed as to when the requested service will be performed and to provide individual attention.

✓ The *professionalism* dimension, demonstrating the importance of accuracy and confidentiality in banking transactions.

✓ The *assurance* dimension, demonstrating the significance of employees in pinpointing and satisfying customers' needs, in confidentiality issues and in terms of courtesy and helpfulness.

Therefore, the hypothesis, that the dimensional construct of the original SERVQUAL model will not hold in the context of the banking industry of Cyprus and as such a different dimensional structure will be developed, is accepted. The author considers that the measurement instrument developed in this study replicates the major characteristics of the service quality construct found in the banking industry in Cyprus and demonstrates content validity.

Additionally the following are important points drawn from this research study:

✓ The resulting model differs from the original five dimensional SERVQUAL instrument leading to the conclusion that a simple adoption of a generic service quality measurement instrument as is will most probably generate an ambiguous result. What is needed is careful consideration of industry specific and service provider characteristics and of variables used in similar service quality

measurement instruments implemented by other researchers and/or organizations in other industries and other countries.

✓ The role of employees during service interactions and service delivery is paramount since the most important dimension of this study and in total, 16 out of the 23 quality indicators of the resulting model emphasize that role. Bank management need to take all necessary steps to support, strengthen and enhance employees' role as service facilitators.

✓ Convenience seems to be important for customers in Cyprus as the respective dimension loaded second on the model and was the second largest, composed of 6 items. Moreover, items AQ4 'The bank you deal with most is conveniently located', and AQ3 'The bank you deal with most has adequate parking facilities' which were added by the author and are not part of the SERVQUAL model, loaded first and second onto the dimension respectively. These should be thoroughly evaluated and considered by bank management as they may offer a potential competitive advantage. As these specific service quality factors have not been identified in similar studies, theorists should take them into consideration in future research.

Perhaps, the most important finding of this thesis is the non-existence of the tangibles dimension and of any item corresponding to the tangibles dimensions as identified by Parasuraman et al., (1985; 1988; 1991). The author suggests that the importance of tangibles varies according to the industry and they are probably more important in other service sectors than in banking. Further research is needed to explain the non-existence of the tangibles dimension and the greater importance of the intangible items.

Finally, the service quality measurement instrument developed in this study appears to be reliable, as supported by the internal consistency reliability measured by Cronbach's alpha, and valid, as supported by predictive, convergent and content validity testing. The author therefore believes that the objectives of this study have been met.

7.3 Study Implications

This study offers two important contributions in the area of service quality measurement. Firstly, it extends the theoretical background and on-going discussion surrounding the development of a service quality instrument to accurately capture the service quality construct that characterizes a given industry, the banking industry of Cyprus in this study. The findings of this study also contribute to the on-going debate on the dimensionality and measurement of service quality in the literature. Secondly, is the contribution to the managerial/practical applications of service quality measurement since the results obtained in this study present a reliable and valid instrument that bank managers could use to evaluate service quality levels in the banking sector of Cyprus and isolate potential shortfalls in need of potential improvement.

Perhaps the most important conclusion on the value of the instrument reported here is that it offers valuable information on bank customers' perceived service quality evaluations that will help bank managers to make decisions as to what is important for customers and what quality parameters they need to consider to keep their customers satisfied. This said, the author is proposing a new tool, in the thereby adding to the existing literature on this topic and perhaps helping practitioners to begin the development of a continuous service quality programme. However, this study should be considered merely as a starting point in this area and the instrument developed here is not an end in itself. Although this study has produced convincing analytical evidence as to the reliability and validity of the proposed instrument, further application and testing are required to confirm both its reliability and validity, including its potential applicability to banking in other countries.

7.3.1 Theoretical Implications

i. Foundations for further studies

The service quality instrument developed in this study can provide a useful tool based on empirical foundations to measure service quality perceptions of customers in the banking sector of Cyprus. The 23 items loaded onto the 4 dimensions making up the instrument are indicators of quality as reported by bank customers since out of the 31 items originally proposed, customers, through their responses, demonstrated that the 23 items of the solution clearly influenced their perceptions of service quality experienced in their bank branch.

This study contributes to the theoretical knowledge of the individual quality indicators that make up the service quality construct in a local banking context and thereby bridges a specific gap in the literature. Moreover, to the author's knowledge, this is the first empirical study of this magnitude to examine customers' perceptions of service quality in banks in Cyprus.

The 4 quality dimensions should attract bank managers' and theorists' attention for further study. Irrespective of whatever tools banks in Cyprus use to measure service quality, the model developed in this study could be used as an initial diagnostic and measurement instrument to report data on customers' perceptions of service quality and thus help them plan, design and implement appropriate processes to enhance customers' perceptions of service quality and customer satisfaction.

ii. Questionnaire scale development

The service quality construct in the banking sector of Cyprus appears to consist of four dimensions, namely employee proficiency, convenience, professionalism and assurance. The result of hypothesis H_1 is different from the five dimensions proposed by the SERVQUAL model of Parasuraman et al., (1988). The model developed in this study confirms what other researchers such as Carman (1990), Cronin and Taylor (1992), Babakus and Boller (1992), Brown et al. (1993), Gagliano-Bishop and

Hathcote (1994), Buttle (1996), Sureshchandar et al. (2001), Jabnoun and Al-Tamini (2003), Luk and Layton (2004) and Landrum and Prybutok (2004) noted before; that different industries may need to consider different variables when developing a measurement instrument and not rely solely on already published models, such as SERVQUAL or others.

The factor structure developed in this study reveals the following:

- The four items loaded onto the responsiveness dimension of the original SERVQUAL model are scattered over two dimensions in this study.
- Three out of the five items loaded onto the reliability dimension of the original SERVQUAL model are loaded onto two dimensions in this study. The other two items did not load onto any of the dimensions identified in this study.
- Four out of the five items loaded onto the empathy dimension of the original SERVQUAL model are loaded onto three dimensions in this study. The remaining item does not constitute part of the solution identified in this study.
- The four items loaded onto the assurance dimension of the original SERVQUAL model are loaded onto three dimensions in this study.
- The items loaded onto the tangibles dimension of the original SERVQUAL model do not exist in the dimensions identified in this study. Rather, two items identified by the author and attributed to the tangibles dimension loaded onto one of the dimensions identified in this study.
- Three out of the four dimensions demonstrated in this study are different from those identified in the original SERVQUAL model.

Despite of the above, 14 items from the original SERVQUAL model did find their way into the resulting structure of this study, demonstrating that SERVQUAL items could be used for developing service quality measurement tools in the future for different service industries. Having said this, the author believes that the scale developed in this study verifies the conclusions of other researchers, as

explained before, that the variables to be included in future instruments should identify and include sector specific variables through interviews with quality specialists in the different service industries, prior research studies in different service industries, and country and culture specific characteristics in order to capture customers' service quality perceptions more accurately.

Moreover, a longitudinal study which would follow the changes in quality expectations and preferences in customers' minds would provide up-to-date quality indicators that would accurately describe the service quality construct in the given industry. Mere adoption of the original SERVQUAL model as is, will, most probably, not identify the service quality structure characterizing the given service industry, as evidenced by other researchers and the author of this study.

iii. Use of a single scale

In this study, the use of a single scale to capture customers' perceptions of service quality was decided after reviewing the relevant literature and the recommendations of a significant number of researchers that the use of two scales – expectations and perceptions scales – is time consuming, is confusing for respondents to complete, and does not offer any added benefit as a diagnostic tool than using one scale. The use of a single scale entails a shorter survey, which is considered very important when administering such a survey since respondents are generally unwilling to respond to long interviews or complete long questionnaires. The overall model suggested in this study can be used as a measurement tool in the local banking context since it satisfies the appropriate statistical tests. The results of hypothesis H_2 satisfy the appropriate levels of statistical significance exhibited through high reliability coefficients, thus verifying both the internal consistency of the scale as a whole and the summated dimensions.

iv. *The non-existence of the 'tangibles' dimension*

The resulting model in this study did not include a separate tangibles dimension as in the original SERVQUAL instrument (Parasuraman et al., 1988). Rather, the only apparently tangible items were AQ3 'The bank you deal with most has adequate parking facilities' and AQ4 'The bank you deal with most is conveniently located', both items not included in the original SERVQUAL instrument but added into this study after examination of the available literature and suggestions by bank experts on service quality. These items did not load onto a separate dimension but were elements of dimension 2, the convenience dimension. The author believes that these items, in customers' minds, are not tangible items; rather, they are positioned as convenience items, as explained in section 5.3.1.5.

The non-appearance of tangibles as a separate dimension in this study may also be due to the fact that people's expectations and perceptions of service quality change over time. Tangibles were an important factor 20 years ago, while nowadays consumers expect a certain level of physical appearance and facilities as standard in any business. Additionally, perhaps tangibles are more important in other service sectors than in banking. Kara et al's (2005) study examined the tangible and intangible determinants of service quality in the non-profit health-care sector in Turkey. Further research is needed to verify their results and/or explain the non-existence of the tangibles dimension and the greater importance of intangible items. Moreover, as the author claims, the importance of tangibles varies with the industry in question, so future researchers could examine the presence and importance of the tangibles dimension in different industries to verify or reject this claim.

The non-existence of tangibles, even if it does not hold for all industries, provides useful insights as to the service quality indicators characterizing the industry in question and helps in the development of a more focused model to capture customers' specific perceptions of service quality. Furthermore, investment in tangibles might represent a considerable expenditure for service organisations and not represent any added value for customers.

7.4 Limitations

This study is the first or at least one of the first attempts to test, develop and propose a service quality measurement instrument for the banking sector in Cyprus. The author is aware that some of the banks in Cyprus do use their own methods to measure service quality, however, these methods and processes are not based on SERVQUAL or similar published studies but they are built, more or less, on the experience, skills, abilities and knowledge of the bank experts responsible for quality assurance. Because knowledge of how banks in Cyprus measure service quality is limited, further research is needed to facilitate future studies. Since this study seems to be one of the first attempts, it follows that the findings of this study are subject to some limitations and they should be acknowledged accordingly.

During the research process one uncontrollable incident occurred, beyond the control of the author. Namely, the author intended to perform this research project in co-operation with one bank and, if possible, one area of banking operations (such as retail banking, corporate banking, etc). However, the bank manager who was initially approached and accepted this proposal, after talking with senior officials of the bank, changed his mind and did not allow access to the bank's premises to collect data. Therefore the whole research plan was delayed and the focus of the research became to collect data from all commercial banks operating in Cyprus, specifically outside bank branches. Given that this study was originally planned to measure customers' perceptions of service quality of only one bank by collecting data from 300 respondents, in the end the 300 questionnaires were collected from customers from 10 retail banks (which serve more than 95% of the total).

Whilst it seems that to support a general use of the scale as a standard for any bank in Cyprus is a bit premature, given the smaller sample number compared to the overall number of customers in all commercial banks in Cyprus, nonetheless the findings of this study demonstrate empirical evidence that the service quality measurement model developed here is both reliable and valid. However, bearing in

mind the limitation explained above, readers, other researchers and any other interested party should be cautious when generalizing the findings of this study.

Some other limitations worth mentioning are listed below:

i. *Non-respondent bias*

Data was collected using a survey conducted outside bank branches administered to customers exiting the bank after a service encounter had occurred. However, customers who did not visit their bank branch on those day(s) when data collection was taking place but nonetheless receive services from the same branches were not interviewed, hence they did not have the opportunity to express their opinions. One should consider that opinions of customers interviewed compared to those of customers not interviewed may differ. So, bank management should design and conduct studies (or conduct the same study on different days and/or weeks) to collect responses from those who had previously visited their bank branches but did not do so on the day(s) on which the interviewers were on site. This might reduce non-respondent bias.

ii. *Primary qualitative research*

Although the qualitative determinants included in the questionnaire were developed based on the original SERVQUAL instrument, the existing service quality literature and on interviews with bank managers (who served to provide expert opinions on service quality), these inputs might not have captured the service quality construct for the banking sector of Cyprus in its entirety. Therefore, it would be prudent in future studies or in any replication of this study to perform primary qualitative research with bank customers to identify and describe as accurately as possible quality determinants for the banking context in Cyprus to either verify the results of this study or enrich further the service quality measurement instrument developed in this study.

iii. *Loss of information*

In the data analysis phase during the process of factor analysis, out of the original 31 items included in the questionnaire, only 23 constituted part of the final solution that loaded onto the four dimensions making up the service quality measurement instrument developed in this study. Whilst the largest part of the total variance (68.53%) was explained by the four dimensions that were identified, a significant percentage (31.47%) of the total variance was not explained by these dimensions. It seems that some amount of information was lost. Efforts by the author to validate the results by other methods were made in order to compensate for this loss. Multiple regression analysis was used and the results, as discussed in section 5.4.2.3.1, supported that the four dimensions identified were positive, statistically significant and representative predictors of the service quality construct in the banking sector of Cyprus.

Notwithstanding some information being lost during the simplification process, the formation of the four dimensions and the overall instrument still presents a clear picture of the service quality construct for the banking industry in Cyprus. The dimensions identified propose new directions for bank managers to evaluate, in addition to the information provided by the items included in each dimension. Finally, the whole process and findings might direct bank managers to consider adding in other quality indicators as variables to be tested in subsequent studies, according to their plans and goals.

iv. *Geographic scope*

Data collected for this study came only from the capital city of Cyprus, Nicosia, hence it did not include the opinions and perceptions of customers from other large cities (i.e. Limassol, Larnaca and Paphos) or from smaller towns and villages. The author cannot state with certainty that the findings of this study can be generalized to the entire country, although many surveys conducted in Cyprus to date have not shown any significant differences among inhabitants living in large cities or smaller towns or villages. Further empirical research is needed to generalize the findings of this study to the whole population irrespective of location.

v. *Possible omission of quality indicators*

This study resulted in a four dimensional construct composed of 23 items to measure service quality perceptions in the banking industry of Cyprus. It is assumed that service quality in this context can be accurately described by these 23 statements. Nevertheless, considering all the published literature on the issue and prior work by many researchers, one could argue that some quality determinants might have been missed during the conceptualization of the construct and the subsequent analysis of qualitative data gathered from the literature and interviews with bank experts on quality. It should be noted that the use of 31 items in the questionnaire might have constrained the result. However, the author believes that most, if not all, of the main determinants of service quality in the banking sector of Cyprus have been covered in this study, hence, the findings reported here do support the applicability of this measurement instrument to that context . Its initial reliability and validity have been supported and, in the author's opinion, it provides a simple and concise service quality measurement instrument for bank managers in Cyprus. Finally, it can serve as a basis on which future studies could build and further enhance.

Bearing in mind the possible limitations of this study, and looking back at the way this study was conducted as to the design of the questionnaire and the sampling procedure, one could choose different approaches to evaluate the effectiveness of this model.

One might choose to follow the steps that Parasuraman et al. (1985) followed in their initial study, that is, perform focus group interviews with bank managers and customers and from these interviews identify the factors (country and industry specific factors) that would be included in an instrument to evaluate service quality in the banking sector of Cyprus.

Jaiswal (2008) claimed that the indicators used by customers to evaluate service quality experienced are different from those used by managers. This might result in a gap between the service quality

perceptions of managers and customers, which in turn, might produce erroneous quality indicators. If this were to happen, it would not matter if management continuously measured service quality perceptions or not, as their findings would reach the wrong conclusions.

Similar to the aforementioned is the conclusion of Martinez and Martinez (2010), who suggested that researchers should examine the meaning of service quality for consumers with the help of qualitative techniques. In other words, the authors recommended examining consumer beliefs about the dimensions and statements that should describe the service quality construct.

Moreover, the findings of Grzinic (2007), in her study to measure service quality in the hotel industry in Croatia supported the same issue. Specifically, the author stated (p.96): "… in the observed sample, hotel managers do not know the expectations of their guests because the dimensions of service quality they consider most important, do not match those that are most important for the clients, which is confirmed by the total SERVQUAL gap". Therefore, since the quality indicators used in this study were based on the existing literature and on interviews with bank managers, future researchers should also verify the suitability of the service quality indicators used in this study with customers.

This procedure would most probably be in line with the general belief exhibited in the literature that the resulting dimensions and variables change from country to country and from industry to industry. The sampling procedure used in this study was one of the methods used in the literature. The use of a different approach might have produced different results. For example, Arasli et al. (2005a), in a similar study evaluating service quality in the banking industry in Cyprus, chose to approach respondents in a main street of Nicosia in which no banks are located, with no predetermined approach, in a totally random manner. Their results were different from the results obtained in this study.

Furthermore, several studies in the literature used mail surveys to collect data, many of them collecting questionnaires from customers of only one specific bank. As discussed at the beginning of this section, interviewing customers of only one bank was the initial intention of the author of this study. Approaching customers in their house while relaxing, combined with the statements reflecting their experiences and perceptions of their interactions with only one bank could offer different findings. Nevertheless, the author believes that the approaches used in this study with regard to the design of the questionnaire and the sampling procedure were in line with standard methods described in the research literature and the literature on service quality evaluations and produced reliable and valid results as discussed in chapter 5.

7.5 Recommendations for Future Research

Bearing in mind the limitations discussed in the previous section, and the model derived in this study, a number of theoretical and managerial possibilities for future studies on the topic arise. The most promising are listed below:

7.5.1 For Researchers

As discussed in chapter 5, the findings of this study can be used as a foundation for further studies as they contribute to the development of questionnaires for capturing customers' perceptions of service quality. Nevertheless, further assessment of the following topics is recommended for future research:

i. *Importance of each quality determinant*

Even though the instrument accurately and reliably measures customers' service quality perceptions and can be used as a measurement and diagnostic tool, it does not investigate the relative importance of each quality item included in the questionnaire. Although the author appreciates the significance of importance measurement, especially for bank managers, this study did not aim at specifying which of the quality criteria were more important for customers than others, basically to allow for a shorter

version of the questionnaire and to avoid the inherent problems associated with the administration of two sets of questionnaires, such as perceived repetition and confusion on the part of respondents. Since this was beyond the scope of this study, future research might well assess the importance of each item, for example, by including statements asking about the importance of each quality determinant included in a questionnaire, in order to provide a more refined instrument and for further research potential and better information for bank managers to make more informed decisions.

ii. *Applicability of the model*

This study suggests that the model developed is applicable to the banking sector in Cyprus. It is however suggested that the instrument be tested in similar settings (for example, the financial industry of Cyprus as a whole) and with larger respondent samples. Even though the author believes that the model is applicable in all cities in Cyprus, since it was tested only in Nicosia, it is also recommended to test the applicability of the model in the other major cities of Cyprus (Limassol, Larnaca, Famagusta and Paphos) to verify that the model can be used for the banking industry of Cyprus as a whole. The reliability and validity of the model in other settings should also be examined. Replication of the model in other countries and/or industries is also a possible direction for future studies.

iii. *Continuous assessment of the instrument*

A study to measure customers' service quality perceptions over time is suggested. This would help to understand the impact of improvements on service quality standards arising from the quality determinants specified in the measurement instrument. A follow-up of the scale items included in the instrument would provide valuable information on their usefulness and ability to accurately measure service quality over time and additionally would offer information on the trend of how customers' perceptions of service quality change over time.

Also important is the continuous evaluation of each quality determinant included in this questionnaire (and of course of any such determinant used to evaluate service quality in any theoretical model or practical application) as to whether each item should be continued to be used as it stands, whether it needs alteration or if it should be excluded from future models. Such an evaluation should start with focus groups or in-depth interviews with customers to identify the quality characteristics that are important to them at the given time in the future. Alternatively, future researchers could perform a customer survey asking about the factors that would influence their evaluations of service quality.

The assessment of service quality factors should take into consideration peoples' changes in tastes and preferences along with the changes in the age structure and in the education level of the global population. Clearly, people live longer today and, more importantly, those over 60 form a powerful group that will have an impact on several aspects of life, including politics, social issues and of course business and marketing. Moreover, people are more and more educated and the global illiteracy level is in decline. As people become more educated their preferences and priorities might well change over time. Therefore, service quality indicators used today might not reflect the service quality standards that customers will look for in 10 or 20 years, hence, a continuous evaluation and improvements are recommended for future research.

7.5.2 For Managers

The importance of employees, managing customer expectations and perceptions, managing a successful and satisfactory service encounter, making investments in a continuous service quality improvement programme and branch service quality performance measurement are the most important recommendations for managers:

i. Customer segmentation

As discussed in section 5.5 of this study, the author found several differences between sexes and education levels that signal variations as to how these groups understand and value the quality of service they receive.

Although data with regard to demographics and education level was collected, data regarding customer needs so as to segment them accordingly was not, hence this study did not explore the effects of service quality perceptions in relation to different customer needs. Bearing in mind the work of Spathis et al. (2004), who examined how gender differences affected customers' perceptions of service quality dimensions, future studies should consider the application of this instrument or other similar instruments to different customer segments (based on customer needs and not demographics) and evaluate the expandability of this model into this area. Such a study should gather a large enough sample so as to obtain reliable results with regard to the segmentation base used.

The author believes that these factors are important and should be considered when developing service quality measurement instruments as the use of a single model measuring the service quality of the organization as a whole is perhaps not sufficient. Thus, it seems appropriate that specific factors used to affect service quality in the Cypriot banking context should be identified for a specific product or service offered by the bank for each different type of customer. As Newman (2001, p.134) stated, "A fundamental issue on the composition of the branch sample has emerged. It is suspected that the branch survey involving interviews with over 100,000 customers a year in branches might be capturing disproportionate numbers of the "wrong customers" – those regular low-value branch visitors who appear easily satisfied – rather than the profitable high-net-worth customers who are reluctant to visit branches and are more discerning and harder to please." This shows that future research on service quality should take into consideration customer segmentation and specific segments (such as business vs. retail or depositors vs. borrowers) should be identified and the instrument subsequently developed

should measure service quality based on how these customers comprehend service quality. It is the author's conviction that service quality factors would not necessarily be the same for all the different customer segments.

Customer segmentation could be examined based on the age structure of the population and on other demographic characteristics such as education, sex, income level, and perhaps professional and family status, all of which are usually used by marketers to segment customer markets.

Further to the analysis in section 7.5.1 (iii) above, a continuous evaluation of the factors used to capture and measure service quality is needed as people's tastes and preferences change over time. The extension of people's average life span poses new challenges for managers. Obviously, the needs and requirements of a 60 year old person, 20 years ago compared to a 60 year old person today are not the same. And of course, the needs and wants of a 60 year old person 20 years from now are going to be much different from those of a 60 year old person today. Moreover, as people become more educated their preferences and priorities again change over time. It seems that differences among groups of people with regard to what constitutes quality service and what is important do exist.

Therefore, managers should closely monitor these influential demographic changes, and consider whether different quality indicators are needed for the different segments of the population in a given country and how these would justify the design and development of new products and services to satisfy these changing customer segments.

These aforementioned issues were also supported by Kangis and Passa (1997, p.117), who explained that perceptions and expectations vary across customer segments, product ownership and purpose of service encounter. They stated "Acknowledge the heterogeneity of your customer base. What is right for one group of customers in terms of quality could prove inappropriate or disastrous for another."

Overall, it seems that the mere application of the SERVQUAL model which was developed in 1985 and 1988 would potentially provide ineffective information to managers and, therefore, the continuous monitoring and modification of service quality indicators used remains a necessity for any manager with the responsibility for measuring quality of service in an organization.

ii. Price/Service Quality relationship

The relationship between service quality and prices (as charged by banks, such as loan interest rates, deposit interest rates and fees) should be examined in future studies. One should not a priori assume that there is no relationship between quality and price. Rather, an assumption for future analysis should be that price might influence customers' perceptions of service quality and a model including this factor might provide valuable information to bank managers and help them make better decisions, taking account of profitability perspectives as well. Future studies should examine how, for example, lower interest rates on loans influence customers' perceptions of service quality or customers' intentions to use the services of one bank over the services of another, irrespective of their perceptions of service quality. In other words, would customers use a bank offering for example, lower interest rates and charges on loans and lower levels of service quality compared to a bank offering high standards of service delivery but higher interest rates and charges? If such a study were to be conducted, the variables determined could be used as additional variables to improve the explanatory power of a future model that might be created and could also include price considerations.

iii. Service quality levels of foreign banks

The basic objective of this study was to examine the dimensional structure of the service quality construct in the banking industry of Cyprus. To achieve this objective, data was collected outside the branches of the commercial banks offering mostly services to retail customers in Cyprus. Five of these banks were of foreign ownership. As discussed in chapter 5, data was analysed for all banks and did not differentiate between customers' service quality perceptions of local banks and those of foreign

banks. It would be interesting to address this issue in future studies, and pinpoint differences, if any, in service quality perceptions of local versus foreign banks. Such a study could use the same items or quality indicators but use a larger sample (especially important to obtain the opinions of foreign banks' customers who are evidently fewer than those of local banks) to compare the findings obtained for the local banks vs. those obtained for the foreign banks. Arasli et al.'s study (2005b) could provide useful insights for such future research work.

iv. Customers' intentions and customer loyalty

This study did not explore the outcome of service quality measurements, implying that customers' intentions as to their continued use of the services of the bank they deal with, if their service quality perceptions were high, were not examined. Nevertheless, assessing the impact of service quality perceptions on customers' intentions for future use is essential both to theoretical application of such models and to managerial concerns for continuous growth and profitability. Evidently, any manager would like to implement measures, tools and processes that would result in a positive direction towards future growth of the organization. Evaluating future customers' intentions would help achieve this. Therefore, future research should deal with how continued service quality measurements and improvements might influence and/or form future customer intentions. To perform such assessments future researchers could include questions with regard to customers' intentions, for example, whether they would recommend the bank to others, thereby creating positive word of mouth.

Closely related to the issue of customer intentions is that of customer loyalty. As An and Noh (2009) suggested, customer loyalty is quite important for businesses as it motivates customers to use and reuse the services of the same company repeatedly. As they put it: "Customer loyalty means the desire to reuse the service of the company, which includes the willingness to use the same airline company even when its ticket price is relatively higher than that of the competition and to recommend the airline company to others"(p.298). Customer loyalty was not an issue dealt with in this study, nonetheless the

author cannot ignore the importance of loyalty for any organization, banks included. And loyalty can only be achieved if customers are satisfied and for customers to be satisfied, their perceptions of service quality must be high. To obtain information on customer loyalty future researchers could use statements asking customers whether they would use the services of the bank in the future.

It is the author's opinion that further studies based on the aforementioned suggestions would help enhance the understanding of service quality in the context of banking services.

7.6 Summary

The basic objectives of this study were to examine the service quality dimensions as perceived by customers in the banking sector of Cyprus and to develop a reliable service quality measurement instrument for researchers and bank managers. To accomplish these goals, an empirical study in the banking sector of Cyprus was conducted and identified the dimensional structure of service quality in the banking context of Cyprus, including a reliable and valid service quality measurement instrument.

The result of this study, the service quality tool developed here, is a concise measurement instrument and, as already discussed, it accurately and reliably measures banking customers' perceptions of service quality. This instrument could help bank managers to monitor customers' perceived service quality evaluations and provides a springboard for future research studies in the service quality domain.

The decision to use one scale evaluating only customers' perceptions in contrast to the original SERVQUAL instrument that uses two scales and measures expectations and perceptions and the resulting gap between the two, resulted in a shorter, clearer instrument. Sector and some country specific variables were also included in the questionnaires in order to make the resulting instrument fit better the banking industry of Cyprus. The instrument was finally found to be reliable, as assessed through internal consistency measures, and valid, as measured by its content, predictive and convergent validity.

The factor analysis of the data collected from the survey resulted in a four dimensional construct:

- Employee proficiency
- Convenience
- Professionalism
- Assurance

The factor structure of the instrument has fulfilled the objective that was set: that the original SERVQUAL dimensions would not match the dimensional structure of service quality in the banking sector in Cyprus and has resulted in the development of dimensions and an instrument that would accurately and reliably identify the service quality construct in this context.

A brief section, chapter 2, about some background information on the Cyprus context was included to introduce the reader to some information regarding the economic situation and the banking industry of Cyprus. The literature on service quality, its conceptualization, models and measurement reviewed in chapter 3 helped to identify the gaps in the existing literature and helped to determine the research questions addressed in this study. The research methods that were employed were discussed in chapter 4 and the findings were reported in chapter 5. A discussion of the findings was presented in chapter 6.

Overall, this study offers additional knowledge on the dimensional structure of service quality (especially in banking) and extends further the study of service quality conceptualization and measurement. The findings of this study should continue to motivate theorists, researchers and quality practitioners to maintain their endeavour in accurately defining and measuring the service quality construct in order to help further the improvement of customer service for all businesses. Given the recent global upheaval in the banking and financial sector, this service improvement imperative is more than ever relevant.

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APPENDICES

Appendix 1: The original ten dimensions used to capture service quality

Source: Zeithaml et al., (1990, pp.21-22)

Dimension and Definition	Examples of Specific Questions Raised by Customers
Tangibles: Appearance of physical facilities, equipment, personnel, and communication materials.	• Are the bank's facilities attractive? • Is my stockbroker dressed appropriately? • Is my credit card statement easy to understand? • Do the tools used by the repair person look modern?
Reliability: Ability to perform the promised service dependably and accurately.	• When a loan officer says she will call me back in 15 minutes, does she do so? • Does the stockbroker follow my exact instructions to buy or sell? • Is my credit card statement free of errors? • Is my washing machine repaired right the first time?
Responsiveness: Willingness to help customers and provide prompt service.	• When there is a problem with my bank statement, does the bank resolve the problem quickly? • Is my stockbroker willing to answer my questions? • Are charges for returned merchandise credited to my account promptly? • Is the repair firm willing to give me a specific time when the repair person will show up?
Competence: Possession of the required skills and knowledge to perform the service.	• Is the bank teller able to process my transactions without fumbling around? • Does my brokerage firm have the research capabilities to accurately track market developments? • When I call my credit card company, is the person at the other end able to answer my questions? • Does the repair person appear to know what he is doing?
Courtesy: Politeness, respect, consideration, and friendliness of contact personnel.	• Does the bank teller have a pleasant demeanor? • Does my broker refrain from acting busy or being rude when I ask questions? • Are the telephone operators in the credit card company consistently polite when answering my calls? • Does the repair person take off this muddy shoes before stepping on my carpet?
Credibility: Trustworthiness, believability, honesty of the service provider.	• Does the bank have a good reputation? • Does my broker refrain from pressuring me to buy? • Are the interest rates/fees charged by my credit card company consistent with the services provided? • Does the repair firm guarantee its services?
Security: Freedom from danger, risk, or doubt.	• Is it safe for me to use the bank's automated teller machines? • Does my brokerage firm know where my stock certificate is? • Is my credit card safe from unauthorized use? • Can I be confident that the repair job was done properly?

Dimension and Definition	Examples of Specific Questions Raised by Customers
Access: Approachability and ease of contact.	• How easy is it for me to talk to senior bank officials when I have a problem? • Is it easy to get through to my broker over the telephone? • Does the credit card company have a 24-hour, toll-free telephone number? • Is the repair service facility conveniently located?
Communication: Keeping customers informed in language they can understand and listening to them.	• Can the loan officer explain clearly the various charges related to the mortgage loan? • Does my broker avoid using technical jargon? • When I call my credit card company, are they willing to listen to me? • Does the repair firm call when they are unable to keep a scheduled repair appointment?
Understanding the Customer: Making the effort to know customers and their needs.	• Does someone in my bank recognize me as a regular customer? • Does my broker try to determine what my specific financial objectives are? • Is the credit limit set by my credit card company consistent with what I can afford (i.e., neither too high nor too low)? • Is the repair firm willing to be flexible enough to accommodate my schedule?

Appendix 2: The five dimensions of SERVQUAL and their correspondence to the original ten dimensions

Source: Zeithaml, Parasuraman and Berry, (1990, p.25)

Original Ten Dimensions for Evaluating Service Quality	Tangibles	Reliability	Responsiveness	Assurance	Empathy
Tangibles					
Reliability					
Responsiveness					
Competence					
Courtesy					
Credibility					
Security					
Access					
Communication					
Understanding the customer					

Appendix 3 : SERVQUAL Questionnaire (perceptions only)
Source : Zeithaml, Parasuraman and Berry, (1990, pp.184-186)

Directions: The following set of statements relate to your feelings about XYZ Company. For each statement, please show the extent to which you believe XYZ Company has the feature described by the statement. Once again, circling a 1 means that you strongly disagree that XZY Company has that feature, and circling a 7 means that you strongly agree. You may circle any of the numbers in the middle that show how strong your feelings are. There are no right or wrong answers – all we are interested in is a number that best shows your perceptions about XYZ Company.

		Strongly Disagree						Strongly Agree
1.	XYZ Co. has modern-looking equipment.	1	2	3	4	5	6	7
2.	XYZ Co.'s physical facilities are visually appealing.	1	2	3	4	5	6	7
3.	XZZ Co.'s employees are neat-appearing	1	2	3	4	5	6	7
4.	Materials associated with the service (such as pamphlets or statements) are virtually appealing at XYZ Co.	1	2	3	4	5	6	7
5.	When XYZ Co. promises to do something by a certain time, it does so.	1	2	3	4	5	6	7
6.	When you have a problem, XYZ Co. shows a sincere interest in solving it.	1	2	3	4	5	6	7
7.	XYZ Co. performs the service right the the first time.	1	2	3	4	5	6	7
8.	XYZ Co. provides its services at the time it promises to do so.	1	2	3	4	5	6	7
9.	XYZ Co., insists on error-free records.	1	2	3	4	5	6	7
10.	Employees in XYZ Co. tell you exactly when services will be performed.	1	2	3	4	5	6	7
11.	Employees in XYZ Co. give you prompt service.	1	2	3	4	5	6	7
12.	Employees in XYZ Co. are always willing to help you.	1	2	3	4	5	6	7

(continued)

		Strongly Disagree						Strongly Agree
13.	Employees in XYZ Co. are never too busy to respond to your requests.	1	2	3	4	5	6	7
14.	The behaviour of employees in XYZ Co. instils confidence in you.	1	2	3	4	5	6	7
15.	You feel safe in your transactions with XYZ Co.	1	2	3	4	5	6	7
16.	Employees in XYZ Co. are consistently courteous with you.	1	2	3	4	5	6	7
17.	Employees in XYZ Co. have the knowledge to answer your questions.	1	2	3	4	5	6	7
18.	XYZ Co. gives you individual attention.	1	2	3	4	5	6	7
19.	XYZ Co. has operating hours convenient to all its customers.	1	2	3	4	5	6	7
20.	XYZ Co. has employees who give you personal attention.	1	2	3	4	5	6	7
21.	XYZ Co. has your best interests at heart.	1	2	3	4	5	6	7
22.	Employees of XYZ Co. understand your specific needs.	1	2	3	4	5	6	7

Appendix 4 : The questionnaires used to collect the data for this study (in both English and Greek languages)

A survey about the quality of services you receive from the bank you deal with

The following statements relate to your feelings about the bank you deal with. For each statement, please show the extent to which you believe the bank has the feature described by the statement. You may use any of the numbers from 1 to 7 to show how strong your feelings are. There are no right or wrong answers; all we are interested in, is a number that best shows your perceptions about the level of service quality you receive from the bank you deal with.

Scale scores mean:

- **1 = Strongly disagree**
- **2 = Disagree**
- **3 = Disagree slightly**
- **4 = Neither agree or disagree**
- **5 = Agree slightly**
- **6 = Agree**
- **7 = Strongly agree**
- **(9) = I do not know / No answer**

A. Statements about the quality of service you receive from your bank

❖ *The bank you deal with most:*								
1 has modern equipment and technology (T)	1	2	3	4	5	6	7	(9)
2 looks visually appealing (T)	1	2	3	4	5	6	7	(9)
3 has adequate parking facilities (T)	1	2	3	4	5	6	7	(9)
4 is conveniently located (T)	1	2	3	4	5	6	7	(9)
5 provides easily accessible information of the bank's services (EMP)	1	2	3	4	5	6	7	(9)
6 has operating hours convenient to all their customers (EMP)	1	2	3	4	5	6	7	(9)
7 has visually appealing and easily understandable information regarding its banking services (T)	1	2	3	4	5	6	7	(9)
8 'get it right first time' when performing the service you request (REL)	1	2	3	4	5	6	7	(9)
9 keeps accurate records of your transactions (REL)	1	2	3	4	5	6	7	(9)
10 tells you exactly when services will be performed (RESP)	1	2	3	4	5	6	7	(9)
11 keeps your transactions confidential (ASS)	1	2	3	4	5	6	7	(9)
12 gives you individual attention (*e.g. when you use the telephone banking system or when you use services in a different branch*) (EMP)	1	2	3	4	5	6	7	(9)
13 when promises to do something by a certain time, it does so (REL)	1	2	3	4	5	6	7	(9)
14 has your best interests at heart (EMP)	1	2	3	4	5	6	7	(9)
❖ *Employees of the bank you deal with most:*								
15 are well dressed and appear neat (T)	1	2	3	4	5	6	7	(9)
16 offer prompt service to customers (RESP)	1	2	3	4	5	6	7	(9)
17 are reassuring to customers (REL)	1	2	3	4	5	6	7	(9)
18 process your transactions without errors (REL)	1	2	3	4	5	6	7	(9)
19 always provide clear and precise answers to your inquiries (REL)	1	2	3	4	5	6	7	(9)
20 are knowledgeable and competent to offer a prompt service (RESP)	1	2	3	4	5	6	7	(9)
21 are always available to respond to your requests (RESP)	1	2	3	4	5	6	7	(9)
22 do not hesitate to go the extra mile to serve customers (RESP)	1	2	3	4	5	6	7	(9)
23 receive adequate support from management to serve customers better (ASS)	1	2	3	4	5	6	7	(9)
24 provide services with a high level of competence (ASS)	1	2	3	4	5	6	7	(9)

❖ *Employees of the bank you deal with most:*								
25 are always willing to solve your problems (RESP)	1	2	3	4	5	6	7	(9)
26 give customers personal attention (EMP)	1	2	3	4	5	6	7	(9)
27 are helpful and courteous to customers (ASS)	1	2	3	4	5	6	7	(9)
28 keep your records and transactions confidential (ASS)	1	2	3	4	5	6	7	(9)
29 know what your needs are (EMP)	1	2	3	4	5	6	7	(9)
30 know how the bank's products can satisfy your needs (EMP)	1	2	3	4	5	6	7	(9)
31 can be trusted (ASS)	1	2	3	4	5	6	7	(9)
32 The overall quality of the services you receive from the bank you deal with most, is excellent	1	2	3	4	5	6	7	(9)
33 Is there any other factor, not included in the questionnaire, that you think is important when you evaluate the quality of your experience when you use the services of your bank? If yes, which are these factors?		Yes			No			

B. <u>Demographics</u>

1 Age 18 – 29 □ 30 – 39 □ 40– 49 □ 50– 59 □ 60+ □

2 Sex Male □ Female □

3 Education *(please circle the highest level you have completed until now)*

No education/Elementary School □ High School □ Undergraduate degree □

Graduate □ Doctoral □ Other □

4 How many years have you been using the services of the bank you deal with most?

Less than 5 □ 5 – 10 □ 11 – 15 □ 16+ □

5 Which is the bank you use most?

Bank of Cyprus □ Marfin Popular Bank □ Hellenic Bank □ Alpha Bank □

National Bank of Greece □ Piraeus Bank □ Emporiki Bank □ Universal Bank □

Société Générale Bank □ Co-operative / Savings Bank □ Other □

Thank you for your feedback.

Έρευνα για την ποιότητα παροχής υπηρεσιών από την τράπεζα με την οποία συνεργάζεστε περισσότερο

Παρακαλώ όπως σκεφτείτε την ποιότητα των υπηρεσιών που λαμβάνετε από την τράπεζα που σας εξυπηρετεί. Ακολούθως *να βάλετε σε κύκλο*, για κάθε μια από τις ακόλουθες δηλώσεις, τον αριθμό που αντιπροσωπεύει την άποψη σας για το επίπεδο ποιότητας εξυπηρέτησης που λαμβάνετε από την τράπεζα με την οποία συνεργάζεστε. Μπορείτε να σημειώσετε οποιοδήποτε αριθμό από το ένα (1) μέχρι και το (7) για να καταδείξετε πόσο συμφωνείτε ή διαφωνείτε με την καθεμία από τις πιο κάτω δηλώσεις. Δεν υπάρχουν σωστές ή λανθασμένες απαντήσεις. Το ζητούμενο είναι να μας δώσετε μια ένδειξη, μέσω του βαθμού που θα επιλέξετε, που θα καταδεικνύει την άποψή σας για το επίπεδο των υπηρεσιών που λαμβάνετε από την τράπεζα με την οποία συνεργάζεστε.

Η κλίμακα βαθμολόγησης των δηλώσεων ερμηνεύεται ως ακολούθως:

1 = Διαφωνώ πολύ
2 = Διαφωνώ
3 = Διαφωνώ λίγο
4 = Ούτε Συμφωνώ/ Ούτε Διαφωνώ
5 = Συμφωνώ λίγο
6 = Συμφωνώ
7 = Συμφωνώ πολύ
(9) = Δεν γνωρίζω / Δεν απαντώ

Α. ΧΑΡΑΚΤΗΡΙΣΤΙΚΑ ΠΟΙΟΤΗΤΑΣ ΥΠΗΡΕΣΙΩΝ

❖ *Η τράπεζα με την οποία συνεργάζεστε περισσότερο:*	Διαφωνώ πολύ	Διαφωνώ	Διαφωνώ λίγο	Ούτε Συμφ./ Ούτε Διαφ.	Συμφωνώ λίγο	Συμφωνώ	Συμφωνώ πολύ	ΔΓ/ΔΑ
1 διαθέτει μοντέρνο εξοπλισμό και τεχνολογία	1	2	3	4	5	6	7	(9)
2 διαθέτει οπτικά ελκυστικές εγκαταστάσεις	1	2	3	4	5	6	7	(9)
3 διαθέτει καταστήματα με επαρκείς και άνετους χώρους στάθμευσης	1	2	3	4	5	6	7	(9)
4 διαθέτει καταστήματα σε βολικές για τους πελάτες τοποθεσίες	1	2	3	4	5	6	7	(9)
5 παρέχει εύκολα προσβάσιμες πληροφορίες για τις προσφερόμενες υπηρεσίες	1	2	3	4	5	6	7	(9)
6 παρέχει βολικό για τους πελάτες ωράριο εξυπηρέτησης	1	2	3	4	5	6	7	(9)
7 διαθέτει οπτικά εμφανές και ευκολοκατανόητο ενημερωτικό υλικό	1	2	3	4	5	6	7	(9)
8 διεκπεραιώνει ορθά τις συναλλαγές σας	1	2	3	4	5	6	7	(9)
9 διατηρεί ακριβή στοιχεία των συναλλαγών σας	1	2	3	4	5	6	7	(9)
10 σας ενημερώνει για τον αναμενόμενο χρόνο εκτέλεσης των αιτούμενων υπηρεσιών	1	2	3	4	5	6	7	(9)
11 χειρίζεται με εμπιστευτικότητα τις συναλλαγές, τους λογαριασμούς και τα στοιχεία σας	1	2	3	4	5	6	7	(9)
12 σας παρέχει προσωπική εξυπηρέτηση *(πχ. όταν χρησιμοποιείτε την τηλεφωνική τράπεζα ή όταν εξυπηρετείστε σε διαφορετικό από το σύνηθες κατάστημα της τράπεζας με το οποίο συνεργάζεστε)*	1	2	3	4	5	6	7	(9)
13 δεσμεύεται και τηρεί πάντοτε τα υποσχόμενα χρονοδιαγράμματα	1	2	3	4	5	6	7	(9)
14 φροντίζει για το δικό σας συμφέρον	1	2	3	4	5	6	7	(9)
❖ *Το προσωπικό της τράπεζας με την οποία συνεργάζεστε περισσότερο:*	Διαφωνώ πολύ	Διαφωνώ	Διαφωνώ λίγο	Ούτε Συμφ./ Ούτε Διαφ.	Συμφωνώ λίγο	Συμφωνώ	Συμφωνώ πολύ	ΔΓ/ΔΑ
15 παρουσιάζει επαγγελματική εξωτερική εμφάνιση σύμφωνα με τις προσδοκίες σας	1	2	3	4	5	6	7	(9)
16 παρέχει άμεση εξυπηρέτηση στους πελάτες	1	2	3	4	5	6	7	(9)
17 είναι καθησυχαστικό ως προς τις ανησυχίες σας	1	2	3	4	5	6	7	(9)
18 διεκπεραιώνει τις συναλλαγές σας χωρίς λάθη	1	2	3	4	5	6	7	(9)
19 σας απαντά πάντα με σαφήνεια και ακρίβεια	1	2	3	4	5	6	7	(9)

❖ *Το προσωπικό της τράπεζας με την οποία συνεργάζεστε περισσότερο:*	Διαφωνώ πολύ	Διαφωνώ	Διαφωνώ λίγο	Ούτε Συμφ./ Ούτε Διαφ.	Συμφωνώ λίγο	Συμφωνώ	Συμφωνώ πολύ	ΔΓ/ΔΑ
20 κατέχει όλες τις αναγκαίες πληροφορίες για να προσφέρει άμεση εξυπηρέτηση	1	2	3	4	5	6	7	(9)
21 είναι πάντοτε πρόθυμο να ανταποκριθεί στα αιτήματα σας	1	2	3	4	5	6	7	(9)
22 αφιερώνει αρκετό χρόνο για να προσφέρει την καλύτερη δυνατή εξυπηρέτηση	1	2	3	4	5	6	7	(9)
23 λαμβάνει την αναγκαία υποστήριξη της διεύθυνσης για την καλύτερη εξυπηρέτηση των πελατών	1	2	3	4	5	6	7	(9)
24 διαθέτει ψηλό βαθμό ικανότητας κατά την παροχή των υπηρεσιών	1	2	3	4	5	6	7	(9)
25 είναι πάντοτε διαθέσιμο για να επιλύσει τα προβλήματα σας	1	2	3	4	5	6	7	(9)
26 δίνει στους πελάτες την απαραίτητη σημασία	1	2	3	4	5	6	7	(9)
27 είναι ευγενικό με τους πελάτες	1	2	3	4	5	6	7	(9)
28 διατηρεί τα στοιχεία, τους λογαριασμούς και τις συναλλαγές σας εμπιστευτικά	1	2	3	4	5	6	7	(9)
29 γνωρίζει τις δικές σας ανάγκες	1	2	3	4	5	6	7	(9)
30 γνωρίζει ποια τραπεζικά προϊόντα μπορούν να ικανοποιήσουν τις δικές σας ανάγκες	1	2	3	4	5	6	7	(9)
31 είναι άξιο της εμπιστοσύνης σας	1	2	3	4	5	6	7	(9)
32 Το επίπεδο ποιότητας των υπηρεσιών που λαμβάνετε από την τράπεζα με την οποία συνεργάζεστε είναι εξαιρετικό	1	2	3	4	5	6	7	(9)
33 Υπάρχουν οποιοιδήποτε άλλοι παράγοντες που πιστεύετε ότι είναι σημαντικοί για την αξιολόγηση των υπηρεσιών που λαμβάνετε από την τράπεζα με την οποία συνεργάζεστε και δεν περιλήφθηκαν στο ερωτηματολόγιο; **Αν Ναι,** Αναφέρετε μερικούς παράγοντες :			**Ναι**			**Όχι**		

Β. <u>ΔΗΜΟΓΡΑΦΙΚΑ ΧΑΡΑΚΤΗΡΙΣΤΙΚΑ</u>

1 Ηλικία 18 – 29 □ 30 – 39 □ 40– 49 □ 50– 59 □ 60+ □

2 Φύλο Άρρεν □ Θήλυ □

3 Μόρφωση (παρακαλώ σημειώστε το ανώτερο επίπεδο που σμπληρώσατε)

Χωρίς μόρφωση/Δημοτικό □ Μέση Εκπαίδευση □ Πτυχίο □

Μεταπτυχιακό □ Διδακτορικό □ Άλλο □

5 Πόσα χρόνια συνεργάζεστε με την τράπεζα που σας εξυπηρετεί περισσότερο;

Λιγότερο από 5 □ 5 – 10 □ 11 – 15 □ 16 ή περισσότερα □

6 Με ποια τράπεζα συνεργάζεστε περισσότερο;

Κύπρου □ Μαρφίν Λαϊκή □ Ελληνική □ Alpha □

Εθνική Τρ. Ελλάδος □ Πειραιώς □ Εμπορική □ Universal □

Société Générale □ Συνεργατική Πιστωτική Εταιρία □ Άλλη □

<u>Ευχαριστούμε για τη συνεργασία και το χρόνο σας!</u>

Appendix 5

Table 5.6: Item-Total Statistics

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The bank you deal with most has modern equipment and technology	,345	,946
The bank you deal with most looks visually appealing	,351	,947
The bank you deal with most has adequate parking facilities	,559	,946
The bank you deal with most is conveniently located	,583	,945
The bank you deal with most provides easily accessible information of the bank's services	,619	,944
The bank you deal with most has operating hours convenient to all their customers	,516	,946
The bank you deal with most has visually appealing and easily understandable information regarding its banking services	,631	,944
The bank you deal with most 'gets it right first time' when performing the service you request	,524	,945
The bank you deal with most keeps accurate records of your transactions	,511	,945
The bank you deal with most tells you exactly when services will be performed	,557	,945
The bank you deal with most keeps your transactions confidential	,608	,944
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch	,660	,944
The bank you deal with most when promises to do something by a certain time, it does so	,653	,944
The bank you deal with most has your best interests at heart	,430	,947
Employees of the bank you deal with most are well dressed and appear neat	,570	,944
Employees of the bank you deal with most offer prompt service to customers	,659	,944
Employees of the bank you deal with most are reassuring to customers	,744	,943
Employees of the bank you deal with most process your transactions without errors	,720	,943
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	,799	,942
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	,744	,943
Employees of the bank you deal with most are always available to respond to your requests	,721	,943
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	,722	,943
Employees of the bank you deal with most receive adequate support from management to serve customers better	,691	,943
Employees of the bank you deal with most provide services with a high level of competence	,717	,944
Employees of the bank you deal with most are always willing to solve your problems	,753	,943
Employees of the bank you deal with most give customers personal attention	,673	,944
Employees of the bank you deal with most are helpful and courteous to customers	,645	,944
Employees of the bank you deal with most keep your records and transactions confidential	,639	,944
Employees of the bank you deal with most know what your needs are	,590	,944
Employees of the bank you deal with most can be trusted	,701	,943

Table 5.7: Item-Total Statistics

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The bank you deal with most looks visually appealing	,316	,947
The bank you deal with most has adequate parking facilities	,564	,946
The bank you deal with most is conveniently located	,585	,946
The bank you deal with most provides easily accessible information of the bank's services	,612	,944
The bank you deal with most has operating hours convenient to all their customers	,517	,946
The bank you deal with most has visually appealing and easily understandable information regarding its banking services	,626	,944
The bank you deal with most 'gets it right first time' when performing the service you request	,523	,945
The bank you deal with most keeps accurate records of your transactions	,507	,946
The bank you deal with most tells you exactly when services will be performed	,565	,946
The bank you deal with most keeps your transactions confidential	,611	,945
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch	,661	,944
The bank you deal with most when promises to do something by a certain time, it does so	,660	,944
The bank you deal with most has your best interests at heart	,433	,947
Employees of the bank you deal with most are well dressed and appear neat	,556	,945
Employees of the bank you deal with most offer prompt service to customers	,665	,944
Employees of the bank you deal with most are reassuring to customers	,749	,943
Employees of the bank you deal with most process your transactions without errors	,718	,944
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	,803	,943
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	,742	,943
Employees of the bank you deal with most are always available to respond to your requests	,727	,944
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	,724	,943
Employees of the bank you deal with most receive adequate support from management to serve customers better	,692	,944
Employees of the bank you deal with most provide services with a high level of competence	,717	,944
Employees of the bank you deal with most are always willing to solve your problems	,758	,943
Employees of the bank you deal with most give customers personal attention	,674	,944
Employees of the bank you deal with most are helpful and courteous to customers	,643	,945
Employees of the bank you deal with most keep your records and transactions confidential	,638	,944
Employees of the bank you deal with most know what your needs are	,590	,945
Employees of the bank you deal with most can be trusted	,706	,944

Table 5.8: Item-Total Statistics

	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The bank you deal with most has adequate parking facilities	,564	,947
The bank you deal with most is conveniently located	,586	,947
The bank you deal with most provides easily accessible information of the bank's services	,605	,946
The bank you deal with most has operating hours convenient to all their customers	,520	,947
The bank you deal with most has visually appealing and easily understandable information regarding its banking services	,618	,945
The bank you deal with most 'gets it right first time' when performing the service you request	,522	,946
The bank you deal with most keeps accurate records of your transactions	,505	,947
The bank you deal with most tells you exactly when services will be performed	,572	,947
The bank you deal with most keeps your transactions confidential	,614	,946
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch	,664	,945
The bank you deal with most when promises to do something by a certain time, it does so	,669	,945
The bank you deal with most has your best interests at heart	,436	,948
Employees of the bank you deal with most are well dressed and appear neat	,533	,946
Employees of the bank you deal with most offer prompt service to customers	,672	,945
Employees of the bank you deal with most are reassuring to customers	,754	,944
Employees of the bank you deal with most process your transactions without errors	,717	,945
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	,809	,943
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	,738	,944
Employees of the bank you deal with most are always available to respond to your requests	,731	,945
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	,726	,944
Employees of the bank you deal with most receive adequate support from management to serve customers better	,693	,945
Employees of the bank you deal with most provide services with a high level of competence	,713	,945
Employees of the bank you deal with most are always willing to solve your problems	,758	,944
Employees of the bank you deal with most give customers personal attention	,669	,945
Employees of the bank you deal with most are helpful and courteous to customers	,640	,946
Employees of the bank you deal with most keep your records and transactions confidential	,638	,946
Employees of the bank you deal with most know what your needs are	,586	,946
Employees of the bank you deal with most can be trusted	,708	,945

Table 5.9: Respondents' Quality Evaluation

	N	Range	Min	Max	Mean	Std. Deviation
The bank you deal with most has adequate parking facilities	292	6	1	7	3,79	1,691
The bank you deal with most is conveniently located	292	6	1	7	4,53	1,595
The bank you deal with most provides easily accessible information of the bank's services	292	6	1	7	5,98	,961
The bank you deal with most has operating hours convenient to all their customers	292	6	1	7	4,87	1,437
The bank you deal with most has visually appealing and easily understandable information regarding its banking services	292	5	2	7	6,02	1,014
The bank you deal with most 'gets it right first time' when performing the service you request	292	5	2	7	6,28	,714
The bank you deal with most keeps accurate records of your transactions	292	3	4	7	6,40	,665
The bank you deal with most tells you exactly when services will be performed	292	6	1	7	5,02	1,571
The bank you deal with most keeps your transactions confidential	292	6	1	7	6,27	,798
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch	292	5	2	7	5,75	,896
The bank you deal with most when promises to do something by a certain time, it does so	292	6	1	7	5,47	1,105
The bank you deal with most has your best interests at heart	292	6	1	7	3,89	1,468
Employees of the bank you deal with most are well dressed and appear neat	292	6	1	7	6,32	,868
Employees of the bank you deal with most offer prompt service to customers	292	6	1	7	5,76	1,079
Employees of the bank you deal with most are reassuring to customers	292	6	1	7	5,90	1,027
Employees of the bank you deal with most process your transactions without errors	292	5	2	7	6,19	,809
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	292	6	1	7	6,00	1,017
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	292	6	1	7	6,13	,914
Employees of the bank you deal with most are always available to respond to your requests	292	6	1	7	6,04	,867
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	292	6	1	7	5,89	,931
Employees of the bank you deal with most receive adequate support from management to serve customers better	292	6	1	7	5,78	1,093
Employees of the bank you deal with most provide services with a high level of competence	292	6	1	7	6,11	,781
Employees of the bank you deal with most are always willing to solve your problems	292	6	1	7	6,03	,850
Employees of the bank you deal with most give customers personal attention	292	6	1	7	6,18	,781
Employees of the bank you deal with most are helpful and courteous to customers	292	5	2	7	6,40	,694
Employees of the bank you deal with most keep your records and transactions confidential	292	5	2	7	6,27	,774
Employees of the bank you deal with most know what your needs are	292	6	1	7	5,59	1,276
Employees of the bank you deal with most can be trusted	292	6	1	7	5,85	,961

The overall quality of the services you receive from the bank you deal with most is excellent

	N	Range	Min	Max	Mean	Std. Deviation
The overall quality of the services you receive from the bank you deal with most is excellent	292	6	1	7	5,88	,873

Table 5.11: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13,101	46,791	46,791	13,101	46,791	46,791	6,920	24,715	24,715
2	2,284	8,159	54,949	2,284	8,159	54,949	4,160	14,858	39,572
3	1,274	4,549	59,498	1,274	4,549	59,498	2,709	9,674	49,246
4	1,215	4,338	63,837	1,215	4,338	63,837	2,574	9,191	58,437
5	1,044	3,729	67,566	1,044	3,729	67,566	2,556	9,128	67,566
6	,947	3,381	70,947						
7	,805	2,874	73,821						
8	,740	2,644	76,464						
9	,662	2,365	78,829						
10	,591	2,112	80,941						
11	,567	2,024	82,966						
12	,504	1,801	84,767						
13	,472	1,687	86,454						
14	,429	1,532	87,986						
15	,399	1,425	89,411						
16	,372	1,328	90,738						
17	,322	1,150	91,889						
18	,286	1,021	92,910						
19	,269	,960	93,870						
20	,260	,930	94,800						
21	,251	,898	95,698						
22	,243	,867	96,565						
23	,204	,729	97,293						
24	,187	,668	97,962						
25	,165	,589	98,550						
26	,147	,525	99,076						
27	,132	,472	99,548						
28	,127	,452	100,000						

Extraction Method: Principal Component Analysis.

Table 5.12: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13,101	46,791	46,791	13,101	46,791	46,791	6,762	24,151	24,151
2	2,284	8,159	54,949	2,284	8,159	54,949	4,428	15,816	39,967
3	1,274	4,549	59,498	1,274	4,549	59,498	3,593	12,833	52,801
4	1,215	4,338	63,837	1,215	4,338	63,837	3,090	11,036	63,837
5	1,044	3,729	67,566						
6	,947	3,381	70,947						
7	,805	2,874	73,821						
8	,740	2,644	76,464						
9	,662	2,365	78,829						
10	,591	2,112	80,941						
11	,567	2,024	82,966						
12	,504	1,801	84,767						
13	,472	1,687	86,454						
14	,429	1,532	87,986						
15	,399	1,425	89,411						
16	,372	1,328	90,738						
17	,322	1,150	91,889						
18	,286	1,021	92,910						
19	,269	,960	93,870						
20	,260	,930	94,800						
21	,251	,898	95,698						
22	,243	,867	96,565						
23	,204	,729	97,293						
24	,187	,668	97,962						
25	,165	,589	98,550						
26	,147	,525	99,076						
27	,132	,472	99,548						
28	,127	,452	100,000						

Extraction Method: Principal Component Analysis.

Table 5.13: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13,101	46,791	46,791	13,101	46,791	46,791	6,857	24,490	24,490
2	2,284	8,159	54,949	2,284	8,159	54,949	3,933	14,045	38,535
3	1,274	4,549	59,498	1,274	4,549	59,498	2,658	9,491	48,027
4	1,215	4,338	63,837	1,215	4,338	63,837	2,316	8,271	56,297
5	1,044	3,729	67,566	1,044	3,729	67,566	2,150	7,680	63,977
6	,947	3,381	70,947	,947	3,381	70,947	1,952	6,970	70,947
7	,805	2,874	73,821						
8	,740	2,644	76,464						
9	,662	2,365	78,829						
10	,591	2,112	80,941						
11	,567	2,024	82,966						
12	,504	1,801	84,767						
13	,472	1,687	86,454						
14	,429	1,532	87,986						
15	,399	1,425	89,411						
16	,372	1,328	90,738						
17	,322	1,150	91,889						
18	,286	1,021	92,910						
19	,269	,960	93,870						
20	,260	,930	94,800						
21	,251	,898	95,698						
22	,243	,867	96,565						
23	,204	,729	97,293						
24	,187	,668	97,962						
25	,165	,589	98,550						
26	,147	,525	99,076						
27	,132	,472	99,548						
28	,127	,452	100,000						

Extraction Method: Principal Component Analysis.

Table 5.14: Component Matrix

	Component			
	1	2	3	4
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	,831			-,169
Employees of the bank you deal with most are always willing to solve your problems	,810	-,123		-,193
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	,802	-,195		-,138
Employees of the bank you deal with most are reassuring to customers	,802			-,169
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	,788	-,185		-,161
Employees of the bank you deal with most are always available to respond to your requests	,781		-,200	-,225
Employees of the bank you deal with most provide services with a high level of competence	,780	-,250		-,139
Employees of the bank you deal with most process your transactions without errors	,776	-,207	,151	-,151
Employees of the bank you deal with most receive adequate support from management to serve customers better	,748	-,121	-,294	-,138
Employees of the bank you deal with most give customers personal attention	,742	-,273	-,193	-,130
Employees of the bank you deal with most can be trusted	,735		-,121	,145
Employees of the bank you deal with most offer prompt service to customers	,707		,116	-,366
Employees of the bank you deal with most keep your records and transactions confidential	,697	-,187	-,337	,340
Employees of the bank you deal with most are helpful and courteous to customers	,694	-,127	-,307	,200
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch	,677	,222	,231	
The bank you deal with most when promises to do something by a certain time, it does so	,677	,275		
The bank you deal with most keeps your transactions confidential	,659	-,118		,370
The bank you deal with most has visually appealing and easily understandable information regarding its banking services	,638	,147	,423	
The bank you deal with most provides easily accessible information of the bank's services	,637		,289	,292
Employees of the bank you deal with most know what your needs are	,606	,173	-,389	,284
The bank you deal with most 'gets it right first time' when performing the service you request	,605	-,441	,377	,139
The bank you deal with most keeps accurate records of your transactions	,583	-,426	,179	,356
Employees of the bank you deal with most are well dressed and appear neat	,578		,363	
The bank you deal with most tells you exactly when services will be performed	,554	,504		
The bank you deal with most has operating hours convenient to all their customers	,503	,461	-,149	,228
The bank you deal with most has adequate parking facilities	,539	,570	,163	-,113
The bank you deal with most is conveniently located	,558	,570		,236
The bank you deal with most has your best interests at heart	,420	,479		-,230

Table 5.15: Rotated Component Matrix

	Component			
	1	2	3	4
Employees of the bank you deal with most are always available to respond to your requests	,732			
Employees of the bank you deal with most are always willing to solve your problems	,724			
Employees of the bank you deal with most give customers personal attention	,711			
Employees of the bank you deal with most are reassuring to customers	,694			
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	,692			
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	,690			
Employees of the bank you deal with most receive adequate support from management to serve customers better	,688			,401
Employees of the bank you deal with most provide services with a high level of competence	,688			
Employees of the bank you deal with most offer prompt service to customers	,672			
Employees of the bank you deal with most process your transactions without errors	,660		,451	
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	,648	,437		
The bank you deal with most has adequate parking facilities		,769		
The bank you deal with most is conveniently located		,760		
The bank you deal with most tells you exactly when services will be performed		,691		
The bank you deal with most has your best interests at heart		,611		
The bank you deal with most has operating hours convenient to all their customers		,610		
The bank you deal with most when promises to do something by a certain time, it does so	,415	,545		
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch		,526	,421	
The bank you deal with most 'gets it right first time' when performing the service you request			,734	
The bank you deal with most keeps accurate records of your transactions			,662	
The bank you deal with most provides easily accessible information of the bank's services			,583	
Employees of the bank you deal with most are well dressed and appear neat			,574	
The bank you deal with most has visually appealing and easily understandable information regarding its banking services		,464	,566	
Employees of the bank you deal with most keep your records and transactions confidential				,729
Employees of the bank you deal with most know what your needs are				,656
Employees of the bank you deal with most are helpful and courteous to customers	,443			,612
The bank you deal with most keeps your transactions confidential			,466	,521
Employees of the bank you deal with most can be trusted	,416			,458

Table 5.16: Commonalities

	Initial	Extraction
The bank you deal with most has adequate parking facilities	1,000	,655
The bank you deal with most is conveniently located	1,000	,702
The bank you deal with most provides easily accessible information of the bank's services	1,000	,582
The bank you deal with most has operating hours convenient to all their customers	1,000	,541
The bank you deal with most has visually appealing and easily understandable information regarding its banking services	1,000	,609
The bank you deal with most 'gets it right first time' when performing the service you request	1,000	,722
The bank you deal with most keeps accurate records of your transactions	1,000	,681
The bank you deal with most tells you exactly when services will be performed	1,000	,562
The bank you deal with most keeps your transactions confidential	1,000	,586
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch	1,000	,565
The bank you deal with most when promises to do something by a certain time, it does so	1,000	,539
The bank you deal with most has your best interests at heart	1,000	,462
Employees of the bank you deal with most are well dressed and appear neat	1,000	,478
Employees of the bank you deal with most offer prompt service to customers	1,000	,648
Employees of the bank you deal with most are reassuring to customers	1,000	,686
Employees of the bank you deal with most process your transactions without errors	1,000	,690
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	1,000	,725
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	1,000	,701
Employees of the bank you deal with most are always available to respond to your requests	1,000	,706
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	1,000	,681
Employees of the bank you deal with most receive adequate support from management to serve customers better	1,000	,680
Employees of the bank you deal with most provide services with a high level of competence	1,000	,693
Employees of the bank you deal with most are always willing to solve your problems	1,000	,714
Employees of the bank you deal with most give customers personal attention	1,000	,680
Employees of the bank you deal with most are helpful and courteous to customers	1,000	,632
Employees of the bank you deal with most keep your records and transactions confidential	1,000	,750
Employees of the bank you deal with most know what your needs are	1,000	,630
Employees of the bank you deal with most can be trusted	1,000	,577

Table 5.17

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,931
Bartlett's Test of Sphericity	Approx. Chi-Square	5620,698
	df	325
	Sig.	,000

Table 5.18

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12,619	48,533	48,533	12,619	48,533	48,533	6,998	26,914	26,914
2	2,123	8,165	56,699	2,123	8,165	56,699	4,366	16,792	43,706
3	1,228	4,725	61,424	1,228	4,725	61,424	2,972	11,432	55,138
4	1,186	4,562	65,986	1,186	4,562	65,986	2,820	10,848	65,986
5	,943	3,626	69,612						
6	,832	3,200	72,812						
7	,716	2,753	75,565						
8	,635	2,444	78,008						
9	,591	2,272	80,281						
10	,572	2,199	82,480						
11	,550	2,114	84,594						
12	,467	1,794	86,388						
13	,425	1,635	88,023						
14	,402	1,546	89,569						
15	,347	1,335	90,904						
16	,305	1,175	92,079						
17	,286	1,101	93,179						
18	,266	1,024	94,203						
19	,252	,969	95,172						
20	,244	,939	96,111						
21	,210	,808	96,919						
22	,200	,769	97,688						
23	,174	,671	98,359						
24	,161	,619	98,978						
25	,134	,516	99,494						
26	,131	,506	100,000						

Extraction Method: Principal Component Analysis.

Table 5.19

Commonalities		
	Initial	Extraction
The bank you deal with most has adequate parking facilities	1,000	,653
The bank you deal with most is conveniently located	1,000	,734
The bank you deal with most provides easily accessible information of the bank's services	1,000	,534
The bank you deal with most has operating hours convenient to all their customers	1,000	,539
The bank you deal with most has visually appealing and easily understandable information regarding its banking services	1,000	,530
The bank you deal with most 'gets it right first time' when performing the service you request	1,000	,799
The bank you deal with most keeps accurate records of your transactions	1,000	,794
The bank you deal with most tells you exactly when services will be performed	1,000	,561
The bank you deal with most keeps your transactions confidential	1,000	,650
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch	1,000	,586
The bank you deal with most when promises to do something by a certain time, it does so	1,000	,534
Employees of the bank you deal with most offer prompt service to customers	1,000	,648
Employees of the bank you deal with most are reassuring to customers	1,000	,681
Employees of the bank you deal with most process your transactions without errors	1,000	,671
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	1,000	,726
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	1,000	,699
Employees of the bank you deal with most are always available to respond to your requests	1,000	,697
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	1,000	,685
Employees of the bank you deal with most receive adequate support from management to serve customers better	1,000	,687
Employees of the bank you deal with most provide services with a high level of competence	1,000	,689
Employees of the bank you deal with most are always willing to solve your problems	1,000	,719
Employees of the bank you deal with most give customers personal attention	1,000	,683
Employees of the bank you deal with most are helpful and courteous to customers	1,000	,634
Employees of the bank you deal with most keep your records and transactions confidential	1,000	,735
Employees of the bank you deal with most know what your needs are	1,000	,703
Employees of the bank you deal with most can be trusted	1,000	,586
Extraction Method: Principal Component Analysis.		

Table 5.20

Rotated Component Matrix[a]				
	Component			
	1	2	3	4
Employees of the bank you deal with most are always willing to solve your problems	,743			
Employees of the bank you deal with most are always available to respond to your requests	,734			
Employees of the bank you deal with most provide services with a high level of competence	,725			
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	,721			
Employees of the bank you deal with most give customers personal attention	,719			
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	,713			
Employees of the bank you deal with most are reassuring to customers	,698			
Employees of the bank you deal with most process your transactions without errors	,689			
Employees of the bank you deal with most receive adequate support from management to serve customers better	,683			,430
Employees of the bank you deal with most offer prompt service to customers	,682			
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	,666	,445		
The bank you deal with most is conveniently located		,815		
The bank you deal with most has adequate parking facilities		,769		
The bank you deal with most tells you exactly when services will be performed		,686		
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch		,613		
The bank you deal with most has operating hours convenient to all their customers		,600		,415
The bank you deal with most when promises to do something by a certain time, it does so	,420	,551		
The bank you deal with most has visually appealing and easily understandable information regarding its banking services		,521		
The bank you deal with most provides easily accessible information of the bank's services		,492	,451	
The bank you deal with most keeps accurate records of your transactions			,819	
The bank you deal with most 'gets it right first time' when performing the service you request	,411		,792	
The bank you deal with most keeps your transactions confidential			,613	
Employees of the bank you deal with most know what your needs are				,739
Employees of the bank you deal with most keep your records and transactions confidential				,675
Employees of the bank you deal with most are helpful and courteous to customers	,443			,598
Employees of the bank you deal with most can be trusted	,422			,477
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 8 iterations.				

Table 5.21: Rotated Component Matrix(a)

	Component			
	1	2	3	4
Employees of the bank you deal with most are always willing to solve your problems	,743			
Employees of the bank you deal with most are always available to respond to your requests	,734			
Employees of the bank you deal with most provide services with a high level of competence	,725			
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	,721			
Employees of the bank you deal with most give customers personal attention	,719			
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	,713			
Employees of the bank you deal with most are reassuring to customers	,698			
Employees of the bank you deal with most process your transactions without errors	,689			
Employees of the bank you deal with most receive adequate support from management to serve customers better	,683			
Employees of the bank you deal with most offer prompt service to customers	,682			
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	,666			
The bank you deal with most is conveniently located		,815		
The bank you deal with most has adequate parking facilities		,769		
The bank you deal with most tells you exactly when services will be performed		,686		
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch		,613		
The bank you deal with most has operating hours convenient to all their customers		,600		
The bank you deal with most when promises to do something by a certain time, it does so		,551		
The bank you deal with most has visually appealing and easily understandable information regarding its banking services		,521		
The bank you deal with most provides easily accessible information of the bank's services				
The bank you deal with most keeps accurate records of your transactions			,819	
The bank you deal with most 'gets it right first time' when performing the service you request			,792	
The bank you deal with most keeps your transactions confidential			,613	
Employees of the bank you deal with most know what your needs are				,739
Employees of the bank you deal with most keep your records and transactions confidential				,675
Employees of the bank you deal with most are helpful and courteous to customers				,598
Employees of the bank you deal with most can be trusted				
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 8 iterations.				

Table 5.22: Rotated Component Matrix

	Component			
	1	2	3	4
Employees of the bank you deal with most are always willing to solve your problems	,756			
Employees of the bank you deal with most provide services with a high level of competence	,739			
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	,732			
Employees of the bank you deal with most are always available to respond to your requests	,726			
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	,724			
Employees of the bank you deal with most give customers personal attention	,704			
Employees of the bank you deal with most offer prompt service to customers	,696			
Employees of the bank you deal with most process your transactions without errors	,693			
Employees of the bank you deal with most are reassuring to customers	,693			
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	,661			
Employees of the bank you deal with most receive adequate support from management to serve customers better	,653			
The bank you deal with most has visually appealing and easily understandable information regarding its banking services				
The bank you deal with most is conveniently located		,836		
The bank you deal with most has adequate parking facilities		,766		
The bank you deal with most tells you exactly when services will be performed		,706		
The bank you deal with most has operating hours convenient to all their customers		,645		
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch		,586		
The bank you deal with most when promises to do something by a certain time, it does so		,554		
Employees of the bank you deal with most know what your needs are			,712	
Employees of the bank you deal with most keep your records and transactions confidential			,705	
Employees of the bank you deal with most are helpful and courteous to customers			,622	
The bank you deal with most keeps accurate records of your transactions				,846
The bank you deal with most 'gets it right first time' when performing the service you request				,821
The bank you deal with most keeps your transactions confidential				,618
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 9 iterations.				

Table 5.23: Rotated Component Matrix

	Component			
	1	2	3	4
Employees of the bank you deal with most are always willing to solve your problems	,759			
Employees of the bank you deal with most are always available to respond to your requests	,738			
Employees of the bank you deal with most provide services with a high level of competence	,738			
Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	,733			
Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	,729			
Employees of the bank you deal with most give customers personal attention	,709			
Employees of the bank you deal with most are reassuring to customers	,701			
Employees of the bank you deal with most offer prompt service to customers	,700			
Employees of the bank you deal with most process your transactions without errors	,698			
Employees of the bank you deal with most always provide clear and precise answers to your iquiries	,671			
Employees of the bank you deal with most receive adequate support from management to serve customers better	,664			
The bank you deal with most is conveniently located		,848		
The bank you deal with most has adequate parking facilities		,769		
The bank you deal with most tells you exactly when services will be performed		,703		
The bank you deal with most has operating hours convenient to all their customers		,652		
The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch		,573		
The bank you deal with most when promises to do something by a certain time, it does so		,560		
The bank you deal with most keeps accurate records of your transactions			,848	
The bank you deal with most 'gets it right first time' when performing the service you request			,821	
The bank you deal with most keeps your transactions confidential			,625	
Employees of the bank you deal with most know what your needs are				,732
Employees of the bank you deal with most keep your records and transactions confidential				,693
Employees of the bank you deal with most are helpful and courteous to customers				,621
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 7 iterations.				

Table 5.24: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11,359	49,389	49,389	11,359	49,389	49,389	6,824	29,671	29,671
2	2,092	9,094	58,483	2,092	9,094	58,483	3,804	16,541	46,211
3	1,167	5,076	63,558	1,167	5,076	63,558	2,603	11,318	57,530
4	1,144	4,974	68,532	1,144	4,974	68,532	2,531	11,002	68,532
5	,833	3,620	72,153						
6	,671	2,916	75,069						
7	,625	2,718	77,787						
8	,602	2,617	80,403						
9	,534	2,323	82,726						
10	,474	2,061	84,787						
11	,452	1,965	86,752						
12	,403	1,753	88,505						
13	,388	1,687	90,192						
14	,350	1,522	91,714						
15	,292	1,268	92,982						
16	,278	1,209	94,191						
17	,252	1,096	95,287						
18	,233	1,015	96,302						
19	,209	,910	97,212						
20	,181	,786	97,998						
21	,173	,752	98,750						
22	,148	,644	99,394						
23	,139	,606	100,000						

Extraction Method: Principal Component Analysis.

Table 5.26

Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,615[a]	,378	,376	,690	,378	176,006	1	290	,000
2	,673[b]	,453	,450	,647	,076	39,982	1	289	,000
3	,693[c]	,481	,475	,632	,027	15,233	1	288	,000
4	,713[d]	,508	,501	,616	,027	16,004	1	287	,000

a. Predictors: (Constant), REGR factor score 1 for analysis 1

b. Predictors: (Constant), REGR factor score 1 for analysis 1, REGR factor score 4 for analysis 1

c. Predictors: (Constant), REGR factor score 1 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 3 for analysis 1

d. Predictors: (Constant), REGR factor score 1 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 3 for analysis 1, REGR factor score 2 for analysis 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
4	(Constant)	5,877	,036		162,978	,000	5,806	5,948					
	REGR factor score 1 for analysis 1	,536	,036	,615	14,846	,000	,465	,607	,615	,659	,615	1,000	1,000
	REGR factor score 4 for analysis 1	,240	,036	,275	6,644	,000	,169	,311	,275	,365	,275	1,000	1,000
	REGR factor score 3 for analysis 1	,145	,036	,166	4,003	,000	,074	,216	,166	,230	,166	1,000	1,000
	REGR factor score 2 for analysis 1	,145	,036	,166	4,001	,000	,073	,216	,166	,230	,166	1,000	1,000

a. Dependent Variable: The overall quality of the services you receive from the bank you deal with most is excellent

Table 5.28: Test of Equality of Means (sex groups)

Descriptives					Test of Homogeneity of Variances		Test of equality of means
Quaity Statement		N	Mean	Mean Difference	Levene Statistic	Sig.	Sig.
AQ3: The bank you deal with most has adequate parking facilities	Male	138	3,44		1,617	,205	0.001
	Female	154	4,10				
	Total	292	3,79	-0,66			
AQ4: The bank you deal with most is conveniently located	Male	138	4,26		,932	,335	0.005
	Female	154	4,78				
	Total	292	4,53	-0,52			
AQ6: The bank you deal with most has operating hours convenient to all their customers	Male	138	4,80		,010	,922	0.415
	Female	154	4,93				
	Total	292	4,87	-0,14			
AQ8: The bank you deal with most 'gets it right first time' when performing the service you request	Male	138	6,17		5,719	,017	0.017
	Female	154	6,37				
	Total	292	6,28	-0,20			
AQ9: The bank you deal with most keeps accurate records of your transactions	Male	138	6,30		,000	,990	0.015
	Female	154	6,49				
	Total	292	6,40	-0,19			
AQ10: The bank you deal with most tells you exactly when services will be performed	Male	138	4,75		,001	,969	0.004
	Female	154	5,27				
	Total	292	5,02	-0,52			
AQ11: The bank you deal with most keeps your transactions confidential	Male	138	6,13		,052	,819	0.005
	Female	154	6,40				
	Total	292	6,27	-0,26			
AQ12: The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch	Male	138	5,51		2,166	,142	0.000
	Female	154	5,95				
	Total	292	5,75	-0,44			
AQ13: The bank you deal with most when promises to do something by a certain time, it does so	Male	138	5,26		,041	,839	0.002
	Female	154	5,67				
	Total	292	5,47	-0,40			
AQ16: Employees of the bank you deal with most offer prompt service to customers	Male	138	5,56		,097	,756	0.002
	Female	154	5,95				
	Total	292	5,76	-0,39			
AQ17: Employees of the bank you deal with most are reassuring to customers	Male	138	5,73		,285	,594	0.009
	Female	154	6,05				
	Total	292	5,90	-0,31			
AQ18: Employees of the bank you deal with most process your transactions without errors	Male	138	6,04		1,308	,254	0.002
	Female	154	6,32				
	Total	292	6,19	-0,29			

Table 5.28 (cont'd) Descriptives					Test of Homogeneity of Variances		Test of equality of means
Quaity Statement		N	Mean	Mean Difference	Levene Statistic	Sig.	Sig.
AQ19: Employees of the bank you deal with most always provide clear and precise answers to your iquiries	Male	138	5,79		,319	,573	0.001
	Female	154	6,19				
	Total	292	6,00	-0,40			
AQ20: Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	Male	138	5,99		2,929	,088	0.011
	Female	154	6,26				
	Total	292	6,13	-0,27			
AQ21: Employees of the bank you deal with most are always available to respond to your requests	Male	138	5,86		1,768	,185	0.001
	Female	154	6,19				
	Total	292	6,04	-0,33			
AQ22: Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	Male	138	5,66		1,189	,276	0.000
	Female	154	6,10				
	Total	292	5,89	-0,44			
AQ23: Employees of the bank you deal with most receive adequate support from management to serve customers better	Male	138	5,63		,159	,691	0.031
	Female	154	5,91				
	Total	292	5,78	-0,28			
AQ24: Employees of the bank you deal with most provide services with a high level of competence	Male	138	5,98		4,079	,044	0.008
	Female	154	6,22				
	Total	292	6,11	-0,24			
AQ25: Employees of the bank you deal with most are always willing to solve your problems	Male	138	5,91		6,651	,010	0.020
	Female	154	6,13				
	Total	292	6,03	-0,23			
AQ26: Employees of the bank you deal with most give customers personal attention	Male	138	6,03		7,063	,008	0.001
	Female	154	6,32				
	Total	292	6,18	-0,29			
AQ27: Employees of the bank you deal with most are helpful and courteous to customers	Male	138	6,28		2,860	,092	0.003
	Female	154	6,51				
	Total	292	6,40	-0,24			
AQ28: Employees of the bank you deal with most keep your records and transactions confidential	Male	138	6,14		2,396	,123	0.005
	Female	154	6,39				
	Total	292	6,27	-0,26			
AQ29: Employees of the bank you deal with most know what your needs are	Male	138	5,57		3,114	,079	0.801
	Female	154	5,60				
	Total	292	5,59	-0,04			
AQ32: The overall quality of the services you receive from the bank you deal with most is excellent	Male	138	5,81		1,515	,219	0.224
	Female	154	5,94				
	Total	292	5,88	-0,12			

Table 5.29: Test of Equality of Means (education groups)

Descriptives					Test of Homogeneity of Variances		Test of Equality of Means
Quality Statement		N	Mean	Mean Difference	Levene Statistic	Sig.	Sig.
AQ3: The bank you deal with most has adequate parking facilities	No education/ Elementary school	33	3,70	3,697	,993	,396	,956
	High school	158	3,77	3,861			
	Undergraduate degree	72	3,86	,164			
	Graduate	28	3,79				
	Total	292	3,79				
AQ4: The bank you deal with most is conveniently located	No education/ Elementary school	33	4,36	4,364	,295	,829	,846
	High school	158	4,51	4,653			
	Undergraduate degree	72	4,65	,289			
	Graduate	28	4,50				
	Total	292	4,53				
AQ6: The bank you deal with most has operating hours convenient to all their customers	No education/ Elementary school	33	4,82	4,570	1,480	,220	,415
	High school	158	5,00	5,000			
	Undergraduate degree	72	4,72	,430			
	Graduate	28	4,57				
	Total	292	4,87				
AQ8: The bank you deal with most 'gets it right first time' when performing the service you request	No education/ Elementary school	33	5,88	5,879	,731	,534	,000
	High school	158	6,34	6,571			
	Undergraduate degree	72	6,19	,693			
	Graduate	28	6,57				
	Total	292	6,28				

Table 5.29 (cont'd)							
Descriptives					**Test of Homogeneity of Variances**		**Test of Equality of Means**
Quality Statement		**N**	**Mean**	**Mean Difference**	**Levene Statistic**	**Sig.**	**Sig.**
AQ9: The bank you deal with most keeps accurate records of your transactions	No education/ Elementary school	33	6,06	6,056	2,399	,068	,004
	High school	158	6,43	6,643			
	Undergraduate degree	72	6,40	,586			
	Graduate	28	6,64				
	Total	292	6,40				
AQ10: The bank you deal with most tells you exactly when services will be performed	No education/ Elementary school	33	5,15	4,792	,502	,681	,560
	High school	158	5,09	5,152			
	Undergraduate degree	72	4,79	,360			
	Graduate	28	5,04				
	Total	292	5,02				
AQ11: The bank you deal with most keeps your transactions confidential	No education/ Elementary school	33	6,03	6,030	,017	,997	,249
	High school	158	6,26	6,376			
	Undergraduate degree	72	6,38	,345			
	Graduate	28	6,36				
	Total	292	6,27				
AQ12: The bank you deal with most gives you individual attention (e.g. when you use the telephone banking system or when you use services in a different branch	No education/ Elementary school	33	5,30	5,296	2,418	,066	,005
	High school	158	5,75	6,036			
	Undergraduate degree	72	5,82	,740			
	Graduate	28	6,04				
	Total	292	5,75				

Table 5.29 (cont'd)

Descriptives

Quality Statement		N	Mean	Mean Difference	Test of Homogeneity of Variances		Test of Equality of Means
					Levene Statistic	Sig.	Sig.
AQ13: The bank you deal with most when promises to do something by a certain time, it does so	No education/ Elementary school	33	5,09	5,091	1,474	,222	,188
	High school	158	5,49	5,620			
	Undergraduate degree	72	5,62	,529			
	Graduate	28	5,46				
	Total	292	5,47				
AQ16: Employees of the bank you deal with most offer prompt service to customers	No education/ Elementary school	33	5,55	5,545	2,092	,101	,021
	High school	158	5,66	6,214			
	Undergraduate degree	72	5,89	,669			
	Graduate	28	6,21				
	Total	292	5,76				
AQ17: Employees of the bank you deal with most are reassuring to customers	No education/ Elementary school	33	5,55	5,545	,344	,794	,051
	High school	158	5,92	6,250			
	Undergraduate degree	72	5,86	,705			
	Graduate	28	6,25				
	Total	292	5,90				
AQ18: Employees of the bank you deal with most process your transactions without errors	No education/ Elementary school	33	6,00	6,000	1,040	,375	,359
	High school	158	6,24	6,286			
	Undergraduate degree	72	6,11	,286			
	Graduate	28	6,29				
	Total	292	6,19				

Table 5.29 (cont'd) Descriptives					Test of Homogeneity of Variances		Test of Equality of Means
Quality Statement		N	Mean	Mean Difference	Levene Statistic	Sig.	Sig.
AQ19: Employees of the bank you deal with most always provide clear and precise answers to your iquiries	No education/ Elementary school	33	5,82	5,818	,094	,963	,402
	High school	158	5,97	6,250			
	Undergraduate degree	72	6,04	,432			
	Graduate	28	6,25				
	Total	292	6,00				
AQ20: Employees of the bank you deal with most are knowledgeable and competent to offer a prompt service	No education/ Elementary school	33	5,79	5,788	1,086	,355	,162
	High school	158	6,13	6,286			
	Undergraduate degree	72	6,22	,498			
	Graduate	28	6,29				
	Total	292	6,13				
AQ21: Employees of the bank you deal with most are always available to respond to your requests	No education/ Elementary school	33	5,85	5,848	,972	,406	,368
	High school	158	6,02	6,143			
	Undergraduate degree	72	6,11	,294			
	Graduate	28	6,14				
	Total	292	6,04				
AQ22: Employees of the bank you deal with most do not hesitate to go the extra mile to serve customers	No education/ Elementary school	33	5,36	5,364	,932	,425	,008
	High school	158	5,92	6,107			
	Undergraduate degree	72	5,96	,744			
	Graduate	28	6,11				
	Total	292	5,89				

Table 5.29 (cont'd)

Descriptives

Quality Statement		N	Mean	Mean Difference	Test of Homogeneity of Variances		Test of Equality of Means
					Levene Statistic	Sig.	Sig.
AQ23: Employees of the bank you deal with most receive adequate support from management to serve customers better	No education/ Elementary school	33	5,66	5,659	,671	,570	,878
	High school	158	5,78	5,970			
	Undergraduate degree	72	5,77	,311			
	Graduate	28	5,97				
	Total	292	5,78				
AQ24: Employees of the bank you deal with most provide services with a high level of competence	No education/ Elementary school	33	5,85	5,848	,973	,406	,219
	High school	158	6,11	6,214			
	Undergraduate degree	72	6,18	,366			
	Graduate	28	6,21				
	Total	292	6,11				
AQ25: Employees of the bank you deal with most are always willing to solve your problems	No education/ Elementary school	33	5,79	5,788	,101	,959	,042
	High school	158	6,01	6,321			
	Undergraduate degree	72	6,05	,534			
	Graduate	28	6,32				
	Total	292	6,03				
AQ26: Employees of the bank you deal with most give customers personal attention	No education/ Elementary school	33	5,97	5,970	2,004	,114	,033
	High school	158	6,17	6,500			
	Undergraduate degree	72	6,17	,530			
	Graduate	28	6,50				
	Total	292	6,18				

Table 5.29 (cont'd) Descriptives					Test of Homogeneity of Variances		Test of Equality of Means
Quality Statement		N	Mean	Mean Difference	Levene Statistic	Sig.	Sig.
AQ27: Employees of the bank you deal with most are helpful and courteous to customers	No education/ Elementary school	33	6,12	6,121	1,691	,169	,168
	High school	158	6,43	6,500			
	Undergraduate degree	72	6,42	,379			
	Graduate	28	6,50				
	Total	292	6,40				
AQ28: Employees of the bank you deal with most keep your records and transactions confidential	No education/ Elementary school	33	5,97	5,970	,842	,472	,044
	High school	158	6,28	6,461			
	Undergraduate degree	72	6,32	,492			
	Graduate	28	6,46				
	Total	292	6,27				
AQ29: Employees of the bank you deal with most know what your needs are	No education/ Elementary school	33	5,36	5,260	2,206	,088	,261
	High school	158	5,67	5,682			
	Undergraduate degree	72	5,68	,422			
	Graduate	28	5,26				
	Total	292	5,59				
AQ32: The overall quality of the services you receive from the bank you deal with most is excellent	No education/ Elementary school	33	5,76	5,758	,505	,679	,500
	High school	158	5,84	6,036			
	Undergraduate degree	72	5,93	,278			
	Graduate	28	6,04				
	Total	292	5,88				