Customer behaviour, service quality and the effects of culture: A quantitative analysis in Greek insurance.

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Submitted for the Degree of PhD  
9th April 2007

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Abstract

Although more effort and resources are traditionally directed to aggressive marketing, to gain new customers, research has shown that defensive strategies, concerned with retaining customers, can be more profitable (Fornell, 1992). High customer retention leads to long-lasting customer–provider relationships that, in turn, lead to improved financial performance through increased cross selling, possibly at higher prices, repeat purchases and positive word-of-mouth communication (Reichheld and Sasser, 1990; Reichheld, 1996; Grönroos, 2000).

The prevailing idea in the literature is that the behaviour of customers towards a service firm is driven by their loyalty (or disloyalty) to the firm (e.g. Jacoby and Kyner, 1973; Bansal and Taylor, 1999) which comes as a result of how much customers believe that what they get from a specific supplier is worth more than what they can get from others. Previous research has shown that loyalty is primarily affected by satisfaction and service quality (e.g. Zeithaml et al., 1996; Bloemer et al., 2002; Durvasula et al., 2004). A number of other variables, such as price and value, are also discussed in the literature as affecting customer loyalty either directly or through service quality/customer satisfaction (Zeithaml et al., 1996). Culture has been recently assigned a prominent place in this discussion and a whole stream of research has been initiated concerning culture’s consequences on service quality, customer satisfaction and loyalty (e.g. Furrer et al., 2000; Liu et al., 2001).

This research is designed to address the literature gaps in three distinct but interrelated research areas: a) the cross-cultural/cross-sectional applicability of the SERVQUAL (Parasuraman et al., 1988) metric, b) the relationships between service quality, customer satisfaction and customer loyalty at the level of individual dimensions and c) the role of culture in these interactions. To accomplish its objectives it draws evidence from Greek insurance, an under-researched industry in an under-researched culture.

Research was divided into three stages, each with distinct activities. The initial stage included an extensive review of the literature on the variables and dynamics that determine the behavioural intentions of customers. It provided the theoretical foundations on which the empirical part of the study was based.

The second stage (Phase I of the empirical research) dealt with research instrument design, data collection, analysis and interpretation of findings: a) to establish
SERVQUAL’s (Parasuraman et al., 1988) applicability in Greek insurance and b) to test a model, the constituent variables of which are service quality, customer satisfaction and customer loyalty, but at the level of individual dimensions rather than on the aggregate. This stage provided a number of valuable findings. The customized SERVQUAL metric and the model were found reliable, valid and stable. However, the dimensionality of service quality in Greek insurance limited the ability of this research to produce a more extended list of results at this stage.

The third stage (phase II of the empirical research) involved: a) the re-assessment of the findings of phase I and b) the examination of the effect of culture on service quality perceptions and customer satisfaction under a new perspective that relates the cultural characteristics of customers (Hofstede, 1980, 1991) with the importance to them of the five dimensions of service quality (Parasuraman et al., 1988) and customer satisfaction. It was found that the importance of service quality dimensions to customers is related to their cultural profile. In this respect, culture can serve as a determinant for directing quality resources towards where they matter most. However, the relationship between culture and customer satisfaction, through the latter’s relationships with the dimensions of service quality, was only directionally supported. Hence, this particular issue must be the subject of further research.
Publications based on this Research

Some of the results of this research have already been presented to the international research community through a series of papers, three of which have already been published, one has been accepted for publication and one is currently in the reviewing process. The bibliographical references and short descriptions of all five papers are presented in the following paragraphs.


This paper is related to the initial stages of this research which involved the analysis of the service setting from which evidence was to be drawn i.e. Greek insurance. Based on bibliographical research and manipulation of published data, the paper is an attempt to portray the Greek private insurance industry. The legal and institutional frames of the industry are presented in detail and comparisons are made with other European insurance industries. Finally the main challenges of Greek insurance are identified and discussed.


This paper presents a combination of findings in the Greek and Kenyan insurance industries examined by this researcher and Mwita Marwa, a fellow doctoral candidate, respectively. Based on evidence from the Greek and Kenyan insurance industries service quality is measured with a view to identifying quality determinants and existing quality gaps in the two industries. Quality improvement strategies are recommended to apply in each case, comparatives are discussed and conclusions on the efficacy of the SERVQUAL diagnostic in assessing service quality in insurance industries in different development thresholds are outlined.


The paper is related to phase I of this research (see chapter 4 section 4.1) and presents to the international research community the model linking Service Quality, Customer Satisfaction and Loyalty at the level of constructs’ individual determinants that was developed on evidence from Greek retail insurance (see chapter 5 section 3.3). The
paper also presents the research and managerial implications from phase I of this re-
search and the rationale for extending the study to include culture as a possible deter-
minant of service quality and customer satisfaction.

**Tsoukatos, E. and Rand, G.K. (2007). Cultural Influences on Service Quality and
Customer Satisfaction: Evidence from Greek Insurance, Managing Service Qual-
ity, 17(4): 467-485**

Related to phase II of this research  this paper presents to the international research and
managerial community insight on using culture for directing resources where
quality investments are needed most. Different sub-cultures that may be found in
varying market segments can be used for determining quality investment priorities.
The paper presents the proven relationships between the dimensions of culture and of
service quality and the relationships between the dimensions of service quality and
customer satisfaction.
To Norah, Korina
and newborn Jason
Acknowledgements

The completion of my doctoral research would not be possible without the immense contributions of a number of people; friends, colleagues and students in TEI of Crete, relatives and family. I thank you all.

I particularly wish to express my gratitude to my supervisor and Friend Mr. Graham K. Rand for his supervision. Graham generously offered me invaluable guidance and support and on numerous occasions at the expense of his personal time. Working with Graham was a real pleasure. I hope our cooperation will not end here.

I also wish to thank Prof. Robert Fildes and Dr John Mackness for reviewing the progress of my work and offering invaluable advice that helped me to direct my research and keep it in track.

I sincerely thank the management and staff of Interamerican Insurance, Agroinsurance and Phoenix-Metrolife, Emporiki Insurance for contributing to this study and especially for offering help and advice in constructing the GIQUAL scale. My special thanks to Mr Papadimitrakis and Mr Tsotos of Interamerican, Mr Borbadonakis of Agroinsurance and Mr Kamilakis from Phoenix-Metrolife, Emporiki who coordinated this help.

Last but not least I must express my gratitude to my wife Norah and daughter Korina for their enormous support, encouragement and understanding during these years of study.
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1. INTRODUCTION

1.1. Overview

This chapter starts with an introductory section, on the theoretical foundations and the logic of this study, followed by a section on research objectives and scope. The chapter continues with the main contributions of this research and the structure of the thesis. It concludes with a brief summary.

1.2. Theoretical Foundations

Companies use aggressive marketing strategies, to attract new customers and increase market share at the expense of competitors, and/or defensive strategies to protect their products/services and markets from the competition by maximizing customer retention (Fornell, 1992; Ennew and Binks, 1996; Abdel-Maguid Lotayif, 2004; Roberts, 2005). Traditionally, much more effort and resources are directed to aggressive marketing (Fornell, 1992). However, research has shown that defensive strategies can be more profitable. High customer retention rates lead to long-lasting customer–provider relationships that, in turn, lead to improved financial performance through increased cross selling, possibly at higher prices, and positive word-of-mouth communication.

In financial services and especially insurance, economic performance is closely tied with customer retention (Diacon and O’Brien, 2002). As the selling cost of an insurance policy is not recovered unless the policy is renewed for at least three or four years (Zeithaml et al., 1996) retention is the most important determinant of economic success (Moore and Santomero, 1999). The insurance industry has realized that unless the behaviour of customers, after the initial purchase, is understood, the potential for building long-lasting insurer-insured relations is diminished (Harrison, 2003).

Overall, the prevailing idea in the literature is that the behaviour of customers towards a service firm is driven by their loyalty (or disloyalty) to the firm. In general, loyalty reflects the extent to which customers wish to maintain their relation with a supplier. It comes as a result of how much customers believe that what they get from a specific supplier is worth more than what they get from others. Loyalty includes a variety of attitudes or behaviours or may well be situation specific (Kroenert et al., 2005). It is primarily affected by satisfaction and service quality. A number of variables have also been discussed in the literature as affecting customer loyalty either directly or through...
service quality/customer satisfaction. Culture has been recently discussed as one of these variables (Furrer et al., 2000; Liu et al., 2001).

Overall, both aggressive and defensive marketers are trying hard to manage the behaviour of customers or prospective customers to the advantage of their firms. In either case, understanding of the dimensions and dynamics of customer behaviour is critical. In this respect, it is imperative to determine the causal links between service quality, customer satisfaction and customer loyalty. This research is an attempt to produce further knowledge on these links, drawing evidence from the Greek retail insurance industry.

The conclusions from this study are valuable on a number of accounts. First, the study draws evidence from insurance, an intangible dominant service with distinct features. It is well known that the core service of insurance is consumed only when an insured damage has occurred and the relevant claim is settled. By definition the ratio of claims over policies in effect is very small. Hence, service quality and customer satisfaction (the two most discussed antecedents of customer loyalty) in most cases result from the peripherals of insurance service i.e. “how” the service is delivered rather than “what” is actually delivered. Second, most of the theoretical and empirical research on which the service quality/customer satisfaction literature is developed was conducted in USA/Canada or Northern European settings. Hence, this study enriches the literature as it draws evidence from a quite different, and in many ways unique, cultural setting. Third, this study examines the path:

'service quality'→'customer satisfaction'→'customer loyalty'

at the level of construct dimensions rather than in the aggregate. Hence, both construct-dimension and dimension-dimension links are determined. In this respect, the study narrows a gap in the literature as the majority of models examine the links between constructs and leave aside individual dimensions. Fourth, the study takes into account culture as a determinant of service quality/customer satisfaction and is the first that does so in a within-nation service industry. In doing so it produces important conclusions and challenges certain long-established assumptions on the cultural identity and homogeneity of domestic markets. Therefore, the study goes beyond the borders of marketing research to social research.
1.3. Research Objectives

This research is designed to contribute towards closing the gaps in the literature on three distinct though interrelated areas, a) the cross-cultural/cross-sectional applicability of the SERVQUAL metric, b) the relationships between service quality, customer satisfaction and customer loyalty at the level of dimensions and c) the role of culture in these interactions. To accomplish its objectives it draws evidence from Greek insurance, an under-researched industry in an under-researched culture. The rationale for the above mentioned objectives is presented in the paragraphs that follow.

Regarding the first objective, SERVQUAL has been subjected to severe criticism on its applicability across cultures and industries. The debate is far from being closed, although customized SERVQUAL metrics have been extensively used in a variety of service settings around the world (e.g. Carman, 1990; Allred and Addams, 2000; O’Neill and Charters, 2000; Brysland and Curry, 2001; Theodorakis et al., 2001; Santos, 2002; Wang et al., 2003; Sigala, 2004; Ugboma et al., 2004; Tahir and Wan Ismail, 2005) and the scale remains the most popular between both academics and managers (Wisniewski, 2001; Brady et al., 2002). Any contribution towards further understanding the cross-cultural/cross-sectional applicability of the metric will always be of value. This research adds to the literature by reporting its findings from the application of a customized SERVQUAL scale that was designed for measuring service quality in Greek insurance and tested for reliability, validity and dimensionality.

Regarding the second objective, the literature provides ample evidence that the sequence “service quality → customer satisfaction → customer loyalty” best describes the causality of relationships between service quality, customer satisfaction and customer loyalty (e.g. Zeithaml, 1988; Iacobucci et al., 1995; Rust et al., 1995; Zeithaml et al., 1996; Bloemer et al., 2002; Chumpitaz and Paparoidamis, 2004). However, between variables links are mostly examined at the level of aggregate constructs (e.g. Cronin and Taylor, 1992; Rust and Zahorik, 1993; Anderson and Fornell, 1994; Thorpe, 1994; Chumpitaz and Paparoidamis, 2004); therefore, the existing knowledge on the relationships at the level of individual dimensions is still limited. Little is known, for instance, on the effects of the individual dimensions of service quality on customer satisfaction and the effects of the latter on the individual dimensions of customer loyalty. Further, not much is known on the possible causal relations between the attitudinal and the behavioural dimensions of loyalty. This research examines the interactions
between service quality, customer satisfaction and customer loyalty, from a new viewpoint; in a model of which the constituent variables are individual dimensions rather than aggregate constructs. As a result, it produces additional knowledge that contributes towards enhancing our understanding on how these variables are linked.

Regarding the third objective, the literature proves that culture influences human life through shaping values, beliefs, and attitudes (e.g. Hofstede, 1980; Murphy, 1986; UNESCO, 2002). Therefore, it is bound to affect service expectations and perceptions, customer satisfaction, and through them loyalty. However, much remains to be learned about the relationships between the individual dimensions of culture and the dimensions of service quality and customer satisfaction. This research increases our understanding by studying these links under a new perspective that relates the cultural characteristics of individual customers to the importance of service quality dimensions to them and their satisfaction. In exploring these relationships, the typologies of Hofstede (1980, 1991) for the dimensions of culture and of Parasuraman et al. (1988) for the dimensions of service quality are utilised. Even if either or both these typologies are proven inadequate by future research, the methodological framework that this research provides will remain valid.

1.4. Research Design

This research is epistemologically positioned between positivism and relativism. It justifies its position by identifying pre-existing social phenomena and behaviours while acknowledging the consequences of social conditions and accepting the assumption that truth requires concession between different viewpoints (Easterby-Smith et al., 2002). This research starts with an extensive review of the literature. On the basis of this knowledge it sets hypotheses about the constructs and relationships under examination. Finally, through fieldwork, it seeks evidence to confirm or disconfirm the hypotheses (Easterby-Smith et al., 2002).

Being quantitative this research: a) generates theories and hypotheses, b) develops instruments and methods for measurement, c) collects empirical data, d) builds models to analyze evidence and e) evaluates results (Fielding and Schreier, 2001). To collect appropriate empirical data, it employs a survey strategy (Saunders et al., 2007). Structured questionnaires are especially designed and used to collect evidence. Further, this research is repeated cross-sectional in that it examines the applicability of the
SERVQUAL scale and the relationships between service quality, customer satisfaction and customer loyalty in two phases; the second designed to re-affirm the findings of the first. At the same time, it is cross-sectional regarding the examination of the effects of culture on service quality/customer satisfaction. Finally, this research is causal in that it seeks to establish causal relationships between variables. Although it employs correlational techniques these are used in a confirmatory manner in seeking answers that will establish causality in the theory based system I have taken and adapted from the literature.

1.5. Research Contributions

The implications of this research extend to three inter-related areas: a) the cross-sectional/cross-cultural implementation of the SERVQUAL scale, b) the relationships between service quality, customer satisfaction and customer loyalty and c) the effects of culture on these interactions through its relationships with service quality and customer satisfaction.

The implementation of the SERVQUAL metric must reflect the reality that service industries are not stable but they change across countries and/or through time and, therefore, service quality is not stable either. Hence, using the SERVQUAL scale in its generic form (Parasuraman et al., 1988), instead of appropriately customizing the metric to reflect the particularities of the service setting under consideration, may result in losing important information (Zeithaml and Parasuraman, 2004). On the other hand, customization is not without dangers either. Extensive customization might cause limitations to the comparability and generalizability of results. Hence, SERVQUAL type metrics should be constructed to incorporate the customized attributes within the general frame of the SERVQUAL scale. This research offers support for the case that SERVQUAL is applicable across cultures and industries provided that it is appropriately customized to capture the service attributes of the industry in which it is applied (Parasuraman et al., 1988; Zeithaml and Parasuraman, 2004). Further, the findings from applying and testing the metric on evidence from Greek insurance contribute to the existing knowledge on the dimensionality of the SERVQUAL metric and offers support to the argument that the dimensionality of the metric is industry and/or culture specific (Ford et al., 1993; Asubonteng et al., 1996).
This research re-affirms the sequence:

‘service quality’ $\rightarrow$ ‘customer satisfaction’ $\rightarrow$ ‘customer loyalty’

as best reflecting the causality of relations between its constituent variables. However, it provides more valuable findings on the relationships between the individual dimensions of constructs. For instance, although service quality improvement reportedly leads to increased customer satisfaction, this research proves that some dimensions of service quality may contribute more than others. This research found that the effect of tangibles is non-significant and customer satisfaction is related only with the non-tangible elements of service. However, this may well be an industry and/or culture specific result.

The dimensionality of service quality, in the industry from which this research drew evidence, limited this study’s ability to produce a complete set of results regarding the effects of the individual dimensions of service quality (Parasuraman et al., 1988) on customer satisfaction. However, the new viewpoint that this study introduces for examining these relationships will, no doubt, prove useful for researchers who will wish to extend this line of investigation across cultures and industries.

Further, this research contributes towards better understanding the effects of customer satisfaction on the individual dimensions of customer loyalty. It found that customer satisfaction affects directly only the attitudinal dimension of loyalty but not the behavioural dimension which is indirectly affected. Further, it was found that the attitudinal dimension of loyalty is an antecedent of the behavioural dimension. These findings offer support to similar proposals by other researchers (Luarn and Lin, 2003; Bandyopadhyay and Martell, 2007). In this respect, this research produces evidence that may be a valuable input to knowledge on the relationships between the two dimensions of loyalty.

The relationships between the dimensions of culture and the dimensions of service quality and customer satisfaction have been examined from a perspective which, to the best of my knowledge, is new in the literature. The cultural profile of customers has been found to be related with the importance of service quality dimensions to them. Further, evidence has been produced to partially support the hypothesis that the importance of service quality dimensions is consistent with the strength of their relationships with customer satisfaction; hence, culture has an effect on the latter. The im-
Applications of these findings are evident. Culture is a determinant of channelling quality improvement efforts and resources towards those dimensions that will have the greatest impact on customers’ satisfaction. This new perspective of examining these links will be of interest to other researchers that will seek to further extend the knowledge base on the effects of culture. The methodological framework that this research provides will remain valid even if future research rejects (or undermines) either or both the prevailing typologies of culture (Hofstede, 1980, 1991) and service quality (Parasuraman et al., 1988).

Last but not least, this study raises two important research questions regarding a) the correctness of the national cultural profiles that are based on the scores provided by Hofstede (1980, 1991) and b) the existence of cultures-within-cultures that are based on other than ethnic characteristics. These questions imply that an extended international study might be necessary to assess the current cultural characteristics of ethnic societies and may trigger a research stream that will associate culture with other than ethnic or national characteristics. The issue of culture extends the implications of this research beyond marketing to sociology.

Additionally, the findings of this research may be considered as a valuable contribution to managerial decision making, both in the general services sector and in insurance in particular. The managerial implications of this research are reported in sections 7.4 and 7.4.1.

1.6. Structure of the Thesis

This thesis is structured in seven chapters. Following this introductory chapter the organization of the thesis is as follows:

Chapter 2 – is focused on Greece, its economy and insurance industry. The industry is considered in the frames of the wider national welfare system. Its development is tracked and documented and its main challenges are identified. Further, certain characteristics of the industry that are related to subsequent analyses are discussed.

Chapter 3 - reviews the literature on customer loyalty, customer satisfaction and service quality with emphasis on services. Measurements, between-constructs links and effects are discussed. Further, culture and its effects on service quality/customer satisfaction are exhaustively discussed.
Chapter 4 - discusses the research design and methodology. The aims, the outline and the phases of this study are presented. Further, the sampling and survey administration, research instruments, measurement of variables and statistical software and techniques are detailed.

Chapter 5 – provides documentation on the statistical analyses that were conducted in both phases of this study.

Chapter 6 – discusses in length the results of this research in three sections. The first section deals with the applicability and replicability of the customized SERVQUAL scale that was used and its differences to the generic SERVQUAL metric. Section two discusses the model that was constructed to test the links between the variables service quality, customer satisfaction and customer loyalty at the level of dimensions. Section three discusses links between culture and service quality/customer satisfaction that were revealed in the course of this study. Interesting results produced by the measurement of cultural characteristics of individuals are also discussed in this section.

Chapter 7 – opens with a summary of findings followed by sections dealing with the implications of this study. The chapter continues with a section on the limitations of the study and recommendations for further research. Finally, the chapter ends with a section outlining the main conclusions of this research.

1.7. Summary

Competition in services industries has gained momentum which is unlikely to stop. Especially in financial services the trend is more evident as a result of globalisation and unification of markets. Service providers simply cannot afford to ignore the facts and no service sector, among which is insurance, is excluded from the dangers that emanate from international competition (Marwa, 2005).

It is essential for service providers to be equipped with the appropriate knowledge and instruments that will allow them to manage the behaviour of their customers to their firms’ benefit. They won’t be able to do so unless they understand the dynamics and antecedents of their customers’ behaviour. In European Union markets, such as that of Greece, this is a critical challenge. As far as insurance is concerned, the single European market is extended to encompass insurance services. The last remaining legal obstacles for transacting insurance between member states are collapsing and, hence, competition is continuously and rapidly being driven upwards.
This research provides evidence and knowledge that contribute towards closing important literature gaps but it can also be exploited in the decision making process of service managers in their effort to survive intensifying competition. Naturally, the contribution of this study is not limited to the insurance industry or Greece. Greek insurance was simply the industry from which the study drew evidence but findings extend to all services markets. The methodological framework that this research provides can be employed to produce valuable findings in a variety of industries and cultures.
Chapter 2. The Greek Insurance Industry

2. THE GREEK INSURANCE INDUSTRY

2.1. Overview


2.2. Background Information-The Greek Economy

Greece is a Balkan, South-East European country occupying 131,940 sq km. Since gaining its independence from the Ottoman Empire, in 1829, it gradually added islands and surrounding territories with Greek-speaking populations, mainly during the second half of the 19th and the first half of the 20th centuries.

Following its occupation by Germany (1941-44) and a bitter civil war (1944-1949) it joined NATO in 1952. A military dictatorship (1967-1974) suspended political liberties for seven years between 1967 and 1974. A parliamentary republic since 1974, Greece joined the European Community (now European Union) in 1981 and became the 12th member of the Euro-zone in 2001. With a population of 11.08 millions (2005) the Greek society is comprised of 98% Greeks and the Greek Orthodox Church is dominant in the country (98%). Immigrants make up almost one-fifth of the work force, mainly in menial jobs.

Greece is a major beneficiary of EU aid which accounts for around 3.3% of its GDP. It has a mixed capitalist economy with the public sector accounting for about 40% of GDP. The country’s GDP is $242.8 billion and is ranking 36th in the World Bank’s list. The per capita GDP ($ 22,800 in 2005) is 76% of the Euro-zone average. Services is the largest and fastest-growing sector of the economy, accounting for 71% of GDP (2004) with the manufacturing sector and agriculture accounting for 22% and 7% respectively. A traditionally nautical nation, Greece has built an impressive shipping industry with the Greek-owned fleet (all flags), one of the three largest worldwide. The country’s Gini Index is 32.7 while the unemployment rate reached 9.8% in 2005.
The average growth rate of the Greek Economy, in the period 1999-2004, was 4.3%, more than double that in the overall rate in the Euro-zone, mainly as a result of an expansive budgetary policy. After reaching 4.7% in 2004 it slowed down to around 3.6% in 2005 reflecting a decline in investment due to the withdrawal of the Olympic Games-related stimulus. With a relatively high consumer price inflation rate (3.5% in 2005) the inflation differential against the Euro-zone has widened, averaging 2 percentage points in the core inflation. The increase of employment is inadequate and the unemployment rate remains exceptionally high.

According to the World Economic Forum on competitiveness, on the basis of the "competitiveness for growth indicator" Greece in 2005 ranked 46th of 117 countries; nine places lower than in 2004 (when it was ranked 37th between 104 countries), lower than all EU-25 countries except Italy and Poland. At the same time, on the basis of the "enterprising competitiveness indicator" Greece achieved only marginal improvement, ranked 40th between 116 countries in 2005 (41st of 103 countries in 2004).

The principal strengths and weaknesses of the Greek economy can be summarized as follows:

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Macroeconomic stability within the Euro-zone;</td>
<td>Major infrastructure deficits, especially in transport, environment and urban areas;</td>
</tr>
<tr>
<td>Active privatisation programmes;</td>
<td>Unemployment rate above the EU average;</td>
</tr>
<tr>
<td>Regional disparities less than in other Member States.</td>
<td>A low female employment rate;</td>
</tr>
<tr>
<td></td>
<td>Low productivity mainly due to</td>
</tr>
<tr>
<td></td>
<td>1) underdeveloped or not up to date systems for science, technology and innovation,</td>
</tr>
<tr>
<td></td>
<td>2) low quality level of human resources and unavailability of skilled workforce, and</td>
</tr>
<tr>
<td></td>
<td>3) low level of business investment;</td>
</tr>
<tr>
<td></td>
<td>A backward but improving telecommunications sector;</td>
</tr>
<tr>
<td></td>
<td>A high share of employment in agriculture.</td>
</tr>
</tbody>
</table>

Source: Community Support Framework (Summary), Greece 2000-2006
2.2.1. Immediate challenges of the Greek Economy

The main immediate challenge for the Greek economy is to pursue substantial budget consolidation for some years, not only to meet the fiscal objectives of the Euro-zone, but also to be prepared for budget pressures that will start after 2015 as population ageing impacts on an actuarially unsound and largely unreformed public pension system and raises the cost of maintaining the public health system.

Over the medium-term, the main policy challenge is to close the sizeable gap with the average EU-15 living standards. Convergence will require high per-capita economic growth over a long period, which will require both ensuring sound macroeconomic policies and raising potential output growth.

Short-run prospects for solid growth remain good, but they may weaken in future years. Hence sustaining robust growth over the longer term will necessitate structural reforms to product markets and their effective implementation as well as the mobilisation of the large unused potential of labour inputs, especially among women and the young and substantial improvements in human capital.

2.3. The Greek Welfare System

The Greek welfare system consists of a) the Social Insurance system for the protection of working population, b) the National Health System (NHS) for all individuals residing in Greece and c) the system of Social Care for citizens in need of protection. Administratively, the Social Insurance system is coordinated and supervised by the Ministry of Employment and Social Protection, while the Health and Social Care systems are coordinated by the Ministry of Health and Social Solidarity.

2.3.1. The Greek Social Insurance System

The Social Insurance System is the cornerstone of the Greek welfare model. It grants, to working individuals, fiscal or non-fiscal benefits in cases of lost or reduced income from work. The system is structured on three pillars: a) the primary and complementary obligatory insurance, b) the additional insurance systems and the Occupational Insurance Schemes and c) the group or individual private insurance programs.

The first pillar covers the totality of the country’s working population (Greeks or otherwise), including those employed under the new, flexible, forms of employment (par-
tional employment, distant employment etc), and includes sub-systems of obligatory primary and complementary insurance. Primary insurance is provided through autonomous state-run legal entities, the Social Insurance Funds, which are its exclusive providers. Complementary insurance applies only to various groups of wage-earners.

The founding stone of the state Social Insurance System was laid in 1836 when the Marine’s Retirement Fund (NAT) (which in fact started its operations only in 1861) was established. In 1922 law 2868/1922 laid the foundation of the sector-based autonomous Social Insurance Funds of the 20s and 30s. In 1934 law 6298/1934 introduced a number of primary social insurance funds, such as the Tradesmen Insurance Fund (TAE) and the Self-Employed Professionals Fund (TEBE). In 1935 the system of obligatory insurance for private sector wage-earners was introduced that took the form of the Organization of Social Insurance (IKA). IKA operates since 1937 and constitutes the cornerstone of today’s Social Insurance System with 5.5 millions of members and beneficiaries. The system was extended in 1961 with the Agricultural Insurance Organisation (OGA), for the benefit of the country’s rural population.

Significant measures for the reformation and modernisation of the system were taken during the 90s and until 2002 when law 3029/2002 “on the reform of the system of social insurance” was passed by the parliament. These were focused on the system’s organisation and finance as well as its social benefits with emphasis on the retirement pension schemes.

The second pillar of the Greek insurance system presents specific characteristics that are not met, to the same extent, in other EU countries. The establishment of private sector based, Occupational Insurance Schemes by the social partners through collective work settlements was only introduced in 2002 by the law 3029/2002. Professional funds function as private legal entities and provide additional non obligatory insurance services to their members and beneficiaries.

The third pillar, even less developed, consists of the private insurance programs for workers and the members of their families (through group insurance contracts between enterprises and private insurance companies), as well as the individual insurance policies.
2.3.1.1. The Systems’ Financing

The first pillar of Obligatory Social Insurance is financed by a tripartite system that includes state subsidies, employers’ contributions and employees’ contributions. In particular the financing mechanism of the system includes a) employers’ contributions, b) employees’ contributions, c) recurring government subsidies, d) non-recurring government subsidies, e) indirect taxes and f) social insurance funds’ own revenues. Although the funds are allowed to maintain and manage their surpluses, as the social insurance system was initially meant to operate as a self funded system, in reality the reserves are very low and the first pillar social insurance system is actually operating under the pay-as-you-go principle.

The Occupational Insurance Schemes of the second pillar are financed by recurring or non-recurring contributions of the participating social partners, employers and employees, as well as by own revenues (from managing their capital and technical reserves). The Occupational Insurance Schemes are required to build and maintain technical reserves to cover their mathematical debts to their members and/or beneficiaries. The Occupational Insurance Schemes that grant retirement benefits are functioning under the capitalization principle.

The group or individual insurance contracts of the third pillar are financed exclusively by private payments.

2.3.1.2. Retirement Pensions

The pension system in Greece is principally state managed under the first pillar. It is part of the social security system and is, essentially, financed under the pay-as-you-go principle. It is governed by a number of statutory and compulsory rules that include basic and complementary pension schemes. The second pillar pension schemes account for less than 0.3% of the GDP while the third pillar retirement programs (private insurance) offer more often lump sum payments while the annuities market is even less developed (O’Donnell and Tinios, 2003).

The retirement pension system is extremely segmented both horizontally, across sectors, and vertically with three types of retirement benefits; primary and complementary pension and separation payments. This leads to great inequalities among the system’s beneficiaries. There are more than 300 retirement funds with significant differences in regulations. The 28 major funds are categorized in five groups with similar
in-group regulations. These cover a) wage-earners of the private sector (IKA) b) farmers (OGA) c) self-employed, except those in rural sector (TEBE) d) civil servants and e) employees of the state-owned enterprises and banks. A number of complementary insurance funds also exist that provide additional retirement benefits to specific wage-earner categories.

Some attempts to rationalize the system, aimed at dealing with its rapidly deteriorating financial position, were initiated between 1990 and 1992, under a conservative government. Because of social and political opposition, addressed to the government rather than to the measures themselves, this initiative was not brave enough to impose reforms that would ensure the system’s long-term sustainability. In the election campaign of 2000 the, social-democratic, governing party had put forward the issue by stating “it is time to cut the Gordian knot of the pension problem” (PASOK 2000).

Having been re-elected the Simitis government commissioned an international study on the sustainability of the state pension system and in April 2001, based on the findings of the study, a set of proposals was introduced for public debate. The extremely strong public opposition, at the time, forced the government to withdraw the initiative. Since the end of 2005 the conservative government has re-introduced the issue although it has postponed any permanent decisions to the next government term, 2008-2011. Although the level of satisfaction for the current system is very low, public opinion is not convinced that its structural transformation is the only way for its long term sustainability. The prevailing popular belief is that the system can and will do better, provided that it is better managed (O’Donnell and Tinios, 2003). However, adverse demographics, a low effective retirement age and benefits that are generous compared to contributions (although 75% of Greeks believe that entitlements are very small in comparison to contributions), imply that in the absence of a deep reform, a substantial increase of the tax burden will soon be needed to allow for anticipated future pension expenditure. Otherwise, the country will be deprived from essential economic resources, much needed in the course of its economic convergence to the Eurozone standards.

It is characteristic that the present value of the future liabilities of the Greek retirement pensions system is estimated in the order of 200% of the GDP and this will continuously deteriorate because of the phenomenon of an ageing society (Mylonas and de la Maisonneuve, 1999). The phenomenon is not only Greek but the situation in Greece is
much worse than in any other EU country. The debts are owed by the society to pensioners and burden all generations; working people, people about to enter to work, even the unborn. According to Eurostat the contribution of pension expenditures to GDP was 12.9% in 2003 while the life expectancy at age 65 is expected to continuously increase (16.7 in 2002) and the fertility rate to decrease (1.27 in 2002). As a result, the old-age dependency ratio (the ratio between the number of people over the age of 65 and the number of people of working age) projections are extremely unfavourable (from 24.2 in 2000 to 58.8 in 2050).

The long term survival of the social pensions system cannot be guaranteed unless employment (59.4% in 2004) and especially that of women (45.2% in 2004) is increased, unemployment (9.8%) and especially that of females (15.3%) and young workers under 25 (26.0%) is drastically reduced, effective measures against uninsured employment are taken and economic immigrants are fully integrated in the system in combination with the strengthening of the second and third social insurance pillars.

2.3.2. The Greek Health Care System

The structure of the Greek Health Care System of the 90s (Figure 2.1.) still remains very much the same.

As seen in Figure 2.1, the Greek Health Care System is characterized by the coexistence of the Public National Health System (NHS), financed by government subsidies, the Compulsory Social Insurance Health Care System and a Private Health Care System. The NHS provides uniform services to the whole of the population while the Private Health Care System provides services on payment either from the Social Insurance Funds or from prepaid private insurance health policies or even from direct payments of the patients.

In fact, health services in Greece are, almost equally, financed from public and private sources. Public financing comes from government subsidies and from the Social Insurance funds. Parallel to the public financing exists a "black economy of health" financed by private, out-of-pocket, cash payments. In 2002, health expenses amounted to 9.5% of GDP, 4.5% of which are estimated to account for "black economy" payments (47% of total expenditure, the highest percentage of EU-15 countries and Israel). These mainly consist of, under-the-table, payments to NHS doctors, who otherwise are paid by the NHS as civil servants, by patients or members of their families.
This, to some degree, explains the expansion of the Private Health Care System which is accelerated by the rapid increase of private health insurance (although the contribution of private insurance to the system’s financing is still very low; 3.9% of private payments) in combination with the inefficiency of efforts to improve the performance of the NHS. The private sector is very active in both the hospital and the primary care level. Private hospitals, in particular certain big units in the Athens area, account for 30% of admissions, and are highly profitable.

The primary health care, in the public sector, is provided through a system of primary health centres and hospital ambulatory (outpatient) services, which belongs to the

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Chapter 2. The Greek Insurance Industry

NHS and a system of ambulatory services units that belongs to IKA. An extensive network of private medical practitioners and diagnostic centres coexists with the public primary health care system. This is financed by a combination of private payments and payments from the social security funds, as well as through prepaid private health insurance policies.

The public secondary and tertiary health care is provided through a network of 123 general and specialised hospitals (with 36,621 beds in total) and 9 psychiatric hospitals (with 3,500 beds) operating under the NHS. The state also operates 13 military hospitals, financed by the Ministry of Defence, 5 IKA hospitals and 2 Medical School Teaching Hospitals. 243 private hospitals (mainly general hospitals and obstetrical clinics) contribute 25% of available beds. The foundation of new regional Medical School Teaching Hospitals has somehow counterbalanced the inequality of hospital beds distribution but a significant flow of patients to the central hospitals of Athens still exists.

The Private Insurance Industry is currently expanding to the health care market by establishing and operating proprietary primary health care networks (doctors and diagnostic centres) and secondary/tertiary health care units (hospitals or polyclinics). This, in an attempt to control the exceptionally high fees charged by private hospitals for health services. The government’s inability to improve and rationalize the public health care system enhances the role of private health care and increases the potential of private insurance prepaid health policies.

2.3.2.1. The National Health Care System

The National Health System was founded in 1983, and was aimed at the reinforcement of the role of the state in health care by providing free-of-charge health care services to all citizens legally residing in Greece (Greeks or otherwise). Especially for members or beneficiaries of social insurance funds, the system charges the corresponding funds with the cost of services. Twenty three years later, and despite the significant increase of public expenses on health, the NHS still suffers from low levels of reliability and customer satisfaction as it remains extensively segregated, insufficiently coordinated and ineffective.

In 1993-1994, an international advisory committee, under the guidance of Prof. Brian Abel–Smith, examined the Greek NHS and produced a report on its performance. This
report also reflects, to a large extent, the NHS’s current state. According to the Abel–Smith report (Abel-Smith et al., 1994), the system’s main problems were:

- **Unethical practices.** Taking the form of transferring the cost from the NHS to out-of-pocket private payments, particularly for surgical and outpatient specialist care, and the bribing of doctors by pharmaceutical companies, with fringe or other benefits, for prescribing specific medicines in large quantities.

- **Lack of customer satisfaction and mistrust to the system.** This is expressed with out-of-pocket payments by patients to doctors in order to have access to the system and enjoy adequate care, the bypass of most ambulatory services offered by social insurance (IKA) and "doctor-shopping" for specialist treatment.

- **Large geographic inequalities** in the distribution of resources and in the quantity and quality of services offered.

- **Centralized and bureaucratic management** at all levels.

- **Lack of motivation in the Greek public administration** as a result of tenure, inflexible wage policies and the inability of management to reward (or discipline) personnel on the grounds of their performance.

- **Lack of medical files and of a reliable health information system.** This makes impossible the assessment of health policies and programs.

- **Lack of cost-effectiveness,** inefficient use of hospital beds, excessive use of drugs and diagnostic tests and high administrative costs due to the multiple sources of financing.

- **Unbalanced mix and lack of staff,** with a plethora of doctors (4.5 doctors per 1000 inhabitants in 2001 one of the highest concentrations in the EU) and shortages of nurses (2.6 nurses per 1000 inhabitants in 1991, one of the lowest ratios in Europe) and other trained staff.

- **Lack of quality assurance** and technology assessment.

### 2.3.3. The Social Care System

The System of Social Care is the final safety network for non-working individuals who are in need. It functions on the basis of individual protection programs for specific population groups; it was established in the early 60s and was substantially ex-
tended during the 80s. The system grants either fiscal benefits, or benefits in the form of social care services through a network of decentralised legal entities under the Ministry of Health and Social Solidarity. To a lesser extent, social services are also provided by a number of non-government organizations which are especially active in children, refugees and handicapped citizens’ protection.

2.4. The Greek Private Insurance Industry

Private insurance in modern Greece appeared initially in the form of marine insurance. Migrant Greek businessmen were involved in marine insurance as early as the last half of the 18th century (Simitsek, 1997). In 1789 they founded "Societa Greca d' Assicurazione" in Trieste and in 1817 and 1818 they founded "New Graikiki Insurers Company" and "Graikiki", both in Odessa. They have been actively participating in the foundation of many other marine insurance companies in the Ionian Islands, Istanbul, Italy, Odessa etc (Makris, 1996). The first marine insurance company on Greek soil was "Elliniko Asfalistiko Katastima" founded on the island of Syros in 1825. After the liberation from the Ottoman Empire, many marine insurance companies followed, e.g. Elpis in 1839, Aiolos in 1840, New Filemporiki Company in 1849 etc (Pazarzis, 2002).

In 1857, Georges Stavrou (Makris, 1996) founded “Phoenix”, the first Greek fire insurance company (bearing no relation with the homonym subsidiary of the Commercial Bank of Greece), and in 1891 “National Insurance Company” was founded by the National Bank of Greece. This was the first insurer offering, in addition to marine and fire insurance, life insurance.

The delay in the industrialisation of the country, the distorted model of growth of Greek capitalism, bureaucracy and the stifling embrace of every enterprising effort by the state, forced the Greek insurance companies to remain, for a number of years, in a state of dormancy with anaemic capital base (Simitsek, 1997). Until the early 70s, insurance activity was limited to the transport and property sectors. The role of state was dominant through the banking system which, at the time, was mainly constituted by banks, either owned by the state or under its direct control, extending their activities to insurance.

The tax reform of 1970 that prohibited the collaboration between banks and insurance companies stimulated independent insurers (Pazarzis, 2002). During the 70s the first
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dynamic sales networks appeared, through the subsidiary of the American ALICO and the (then) Greek Interamerican, which, for the first time, widely introduced life insurance to the market, addressing the general public.

2.4.1. The Legal Framework

The Greek state made its initial efforts to establish government supervision on the operations of insurers in 1909. Law ΓΥΣΓ of 22/12/1909 allowed only Greek Insurance Enterprises to operate in the country but in the next year, law ΓΧΜΣΤ of 1/3/1910 allowed the operation of foreign companies as well. The principles and rules for the establishment and operation of insurance enterprises were, for the first time, introduced in 1917 after law 1023/1917 "on private insurance enterprises" was passed by the Greek parliament (Ministry of Development).

From 1926 to 1976, the actuarial service and the insurance enterprises’ control and supervision were under the “Directorate of Anonymous Companies and Trust” of the Ministry of Trade. In 1976 the “Directorate of Insurance Enterprises and Actuary Services” was established. After the creation of the Ministry of Development and the subordination of the services of the former Ministry of Trade in it, the directorate has been under the General Secretariat of Trade of this Ministry.

The current legal framework of the insurance industry in Greece, as has been shaped by the incorporation of the EU justice principles into the national legal system, is framed by law 400/70 “on Private Insurance” that determines the general outline for the operation of insurance enterprises in Greece, law 489/76 for the obligatory car insurance and law 1569/85 that regulates the legal status of insurance intermediaries.

Insurance is practised by Public Companies or Insurance Cooperatives established under the Greek law and deal exclusively with insurance. It can also be practised by State Owned Enterprises founded exclusively for this purpose. Insurance companies, established in any member state of the European Union or the European Free Trade Association, can also practice insurance in Greece, under an installation or free provision of services arrangement. Those established in non EU countries can practise insurance only under an installation arrangement.

The operation of an insurance company presupposes a licence, the European Passport, which, for companies established under the Greek law, is granted by the Minister of Development and is in effect for all European Union member states. The licence is

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granted for specific insurance sectors, for all or certain insurance risks. It is not granted unless the identity of shareholders or partners, direct or indirect, individual or legal, is acknowledged. The Ministry of Development must be convinced of the appropriateness of shareholders or partners in question and their ability to guarantee healthy and prudent management. The European passport presupposes that the company in question abides by the terms of solvency set for the European insurance enterprises, as these are determined in the corresponding community directive, and by the principles of healthy competition.

A nine member “Private Insurance Authority”, in the Ministry of Development, monitors the industry. The following issues come within the jurisdiction of this authority:

a) Consultation on special subjects with respect to private insurance, after a corresponding request of the Minister of Development. b) Authorisation and retraction of the licence of insurance enterprises operation. c) Submission of proposals, after a corresponding request of the Minister, for special measures concerning the improvement of the insurance industry, the creation of training systems for those employed in it, the creation and materialisation of a Deontology Code of Insurance Companies and Professions, d) Informing consumers on private insurance and e) Dealing with any other subject related to the industry. Because of the European Passport, the close collaboration between the monitoring authorities of the EU member states is essential for the successful monitoring of insurance enterprises.

2.4.2. The Market

Greek insurance is worth €3.93 billion in annual premiums (2005), of which €1.94bn is in life and €1.99bn in non-life insurance. It pays annually €2.54 billion in claims of which €1.35bn is life and €1.18bn non-life payments. Ninety five insurance companies compete in the market (2005), of which 18 are life, 64 non-life and 13 composite (http://www.eaee.gr/). Although it is almost impossible to track the nationality of investments in an open European economy such as the Greek one, one can reasonably speculate that most insurance companies in Greece, even those established under the Greek law, belong to non-Greek interests. However, the state is a major market player as, in 2004, the market shares of the three state owned insurance companies (National Insurance, Phoenix-Metrolife and Agroinsurance) were 26.25% and 22.40% in the non-life and life sectors respectively.
Between 1995 and 2005 the number of companies decreased by as much as 32% while heavy concentration between a few big companies characterizes the market. In the life sector the 5 biggest companies write 68% of total premiums while in non-life insurance the 5 biggest write 37% of the premiums.

In fact the size of the Greek Insurance Industry is no more than half of a medium sized European insurance company (Eureko wrote EUR 6,577 million in gross premiums in 2005). In 2004 Greek insurance contributed 2.19% of the country’s GDP compared to the EU contribution of 8%. Although, it follows an upward trend since 1989, with the exception of the period 2000-2002, the industry suffered a total loss (before tax) of €62.9 million in 2004. Insurers attempt to confront this by mergers and strategic alliances between insurance companies, as well as between insurance companies and banks.

The capital base of insurance enterprises established in Greece is poor and insufficient. While in EU countries insurance investments reached 54.5% of the GDP in 2001, in Greece the corresponding figure was a mere 5.12% in 2005 despite a continuous upward trend since 1993, with the exception of the period 2001-2002.

### 2.4.3. Recent Developments and Trends

The corner-stone of today’s Greek insurance constitutes the deregulation of pricing, since 1997, as a result of the harmonisation of the Greek private insurance legislation with that of the European Union. Up to 1997, the pricing in life, fire and liability insurance, accounting for 80% of the total premiums written yearly, was regulated by the state. The results of pricing deregulation were a) the significant increase of premiums in motor liability insurance, b) reduction of premiums in fire insurance and c) mass introduction of Unit Linked life insurance products.

An important development was the wave of buy-outs and mergers, during the last few years, which is expected to go on for a number of years to come. Mainly because of negative results in motor insurance and the high cost of acquiring new business in the life sector, certain well known international insurers, such as Zurich, Commercial Union, Scottish Provident etc, left the Greek market. On the other hand, other international groups, such as Eureko and Credit Agricole, have entered the market while certain branch offices of EU insurers have been transformed into insurance companies established under the Greek law (eg Allianz, Nationale - Nederlanden).
It is worth mentioning the increase, since 2001, of the Minimum Guaranteeing Capital now amounting for €1,200,000 for motor liability insurance (from €400,000) and €1,600,000 for life insurance (from €800,000). These limits will be further increased following an EU directive, the draft of which allows for €3,000,000 in each case.

As a result of pricing deregulation in life insurance a number of new unit-linked or index associated products was introduced in the market. On the other hand, health insurance continues to make losses mainly because actuaries have proven unable to foresee medical inflation trends. Insurers are trying to confront the problem mainly by taking measures to control the cost and by increasing premiums.

A major problem in life insurance, particularly in the savings–investment sector, is high taxation that creates disadvantage for insurance against other competitive products such as mutual funds. On the other hand, a small income tax exemption for life premiums exists, amounting for €1,000 annually for the whole family. In group life insurance the employers’ tax exemption cannot exceed €1,000 per year per employee.

In the non-life sector, the deregulation of premiums, in 1997, gave an end to the exceptionally problematic situation in the motor liability insurance. Despite that, the sector is still problematic and is expected to be so for a number of years to come. The compulsory recreation-vessels liability insurance is expected to contribute to the growth of the market. The legislation for the compulsory earthquake insurance, for all buildings, has not yet been introduced. This is expected to give a further boost to the market. It must also be noted that the industry accepts pressures for increased reinsurance cost mainly as a result of 9/11 terrorist attacks which increased premiums.

### 2.4.4. The main problems of the Greek Insurance Industry

The industry is exceptionally sensitive as far as regulation is concerned. The attitude that the existing regulatory and monitoring framework is far from completely taking into account the industry’s particularities is prevalent. There is need for the modernisation of the legal and regulatory framework as well as for the reinforcement of the monitoring system.

The main problems in the life sector are:

1. **High cost of acquiring new business**, mainly because of the costly maintenance of proprietary agency networks. Bankassurance is expected to contribute towards the rationalization of the cost of acquiring new business.
2. **Losses in health insurance**, mainly because of the rapidly increasing health inflation. As a result, guarantees have been revoked and/or premiums have been increased in many cases. However, there is still in force quite a number of old low premium-high guarantees policies that bring about high losses.

3. **Insufficient tax incentives.** In most EU countries the cost of buying private insurance is subsidized through tax-evasion incentives as private insurance is treated as additional to the state pension schemes. The corresponding legal framework in Greece lacks generosity.

The main problems that the general insurance sector faces are:

1. **High claims in motor insurance.** The motor insurance sector has always been causing significant economic problems to insurers. Although, since 1997, significant premiums increases have been imposed, the sector’s economic performance remains negative. The main reasons are high accident rates, high cost of repairs and the lack of a system of objective determination of claim settlements in cases of body damage.

2. **High reinsurance cost.** “Imported” in the Greek market, because of the devastating physical hazards that hit other countries in Europe and America in conjunction with the terrorist attacks in the USA and elsewhere in the world. Industry sources foresee that, although the effect of physical hazards will be blunted in the next years, terrorism will continue to positively affect the cost of reinsurance.

3. **Lack of a compulsory liability insurance legal framework.** In most developed EU countries legislation exists for compulsory liability insurance, for professional activity and even for real estate. The lack of such a legislative framework in Greece results in exceptionally low levels of the liability insurance market.

### 2.4.5. Sales Channels.

Insurance products are channelled to the Greek market through Proprietary Agency Networks, a System of Brokers and Bankassurance.

#### 2.4.5.1. The Agency system.

Contrary to most European countries, the Proprietary Agency Networks is a dominant feature of Greek insurance, mainly in the life sector. The idea was initially brought in
from the USA and since then it has been adapted to local conditions. Agency network systems are also used by many non life insurers.

Although it is by law specified that "Insurance agent is an individual or legal entity that exclusively undertakes by contract, against commission, insurance business in the name and on behalf of one or more insurance enterprises" (Journal of the Hellenic Republic, 1997), most life insurers and many non-life ones exploit the provision of the same law that allows them to limit the right of the agent to work with other insurance companies and create proprietary sales networks that sell exclusively their own products.

Agency networks have caused significant problems to almost every life insurance company, due to their excessive cost, and led many of them to a functional and economic dead-end. In many cases, the cost of acquiring new business exceeds by far the 100% of first year premium and considerably overloads the cost of insurance. It is indicative that in the USA, on account of the excessive cost that is created by the agency system, 40% of the population are not interested in life insurance and insurers target only the most affluent population groups (Tseliki, 2002).

Insurance companies, in their effort to find ways to reduce costs, are currently in the process of restructuring their networks and are directed towards the progressive suppression of networks or their better exploitation by bringing in alternative financial products (Insurofinance), while they currently are in the process of negotiating, with their agents, reduced commissions, bonuses and other remunerations.

2.4.5.2. The system of brokers

Brokers mainly operate in non-life insurance, and the system of brokers is considered as well tried and reliable. It consists of networks of individuals or legal entities that function as independent enterprises and work with various companies proposing to their customers the insurance products that they consider would suit the customers best. The increase of competition forces insurance brokers to jointly form bigger brokerages, effectively use IT systems and tools and create independent networks of support and training of their associates.
2.4.5.3. Bankassurance

European banks continuously extend their presence in the insurance sector, offering more and more insurance products through their networks. Traditional insurance companies are concerned by the fact that important margins of growth are anticipated in favour of banks, because of the knowledge that they have of the economic position of their customers, allowing them to offer specialised insurance packages at less risk (Finaccord, 2003). Based on their network and on the close relation with their customers, banks penetrate into insurance and sell, mainly, investment products of the life sector. At the same time their own banking products are modernised, differentiated and henceforth require a new perception on customer’s approach and their distribution (Tseliki, 2002). Most European banks, while continuing to promote investment products, are also offering various general insurance contracts and according to research by Finaccord (2003), in a sample of roughly 500 banks, 64% offer household insurance packages, 43.7% car insurance, 39.2% health insurance and 37.8% travel insurance (Finaccord, 2003).

Despite considerable differences and fluctuations from country to country, it appears that the tightening of relations of insurance companies with banks is a one-way road and all European banks have some type of collaboration with insurance companies (Finaccord, 2003). Some of them that recently began with bankassurance saw that this offers very big opportunities towards further exploiting their network, and have already decided to continue with this business more dynamically. In the USA market, where the promotion of bankassurance products in cities with population up to 5,000 was only allowed in 1996, there has been an explosive increase of bankassurance sales.

The full range of insurance products and services are offered through the bankassurance sales channel in Greece with its market share especially increased in the life sector. EFG-Eurolife, owned by Eurobank, which only uses the bank’s network, was, in 2005, top of the list in terms of life premiums written with a market share around 19%. For the same year, ING-Piraeus owned by the Bank of Piraeus wrote €25.3 millions worth of premiums, increased by almost 30% from 2004 while it presented profits for the third consecutive year since its establishment (€1.6 millions).
In fact all banks have joined Eurobank and Piraeus-bank in bankassurance. The National Bank of Greece is currently offering the “Plan for Life” group of pension saving programs, the Commercial Bank, in cooperation with its own insurance company “Commercial Life” is offering the “smile” pension program while “Alpha Bank”, “Cyprus Bank”, “ATEbank”, “Laiki”. “Citibank” and “Egnatia” are also offering similar products.

2.4.6. Market Prospects

The demand for private insurance comes either from compulsory/regulatory insurance obligation or from the need of enterprises and individuals to get protection against risks to life, economic capacity and fortune. The main demand factors in Greek insurance are:

- Regulation on obligatory insurance such as motor liability, recreation sea vessels liability and professional liability (tour operators, work constructors etc)
- Regulation on obligatory asset insurance e.g. enterprises going public
- The requirement by banks for asset or life insurance when issuing loans to individuals or enterprises
- Developments in the system of social insurance that lead individuals to seek additional coverage through private insurance policies.
- Negative publicity, mainly regarding the NHS, that causes individuals to seek additional health insurance.
- Significant physical hazards, which concern the public.
- Tax benefits/motives to individuals for buying private life insurance.

The following factors also influence the market:

- The reputation of the private insurance market as a whole.
- The incidents of insurers’ insolvency that deteriorate the public’s confidence to the industry.
- The existence of suitable legislation and the government monitoring system.
- Insurance products and services corresponding to the insurance needs of the public.
2.4.6.1. The Life Sector

The prospects of the life sector cannot otherwise be examined but in conjunction with the developments in the country’s welfare system. There are proposals by the EU to all its member states for this issue among which the encouragement for the establishment of private capitalization schemes either in the form of professional retirement systems (2nd pillar) or in the form of private insurance programs (3rd pillar). Taking into account recent relative developments in other developed (in and out of EU) as well as developing countries, a significant potential for private insurance should be expected on this account.

It must be noted that, at this stage, the EU proposals are not obligatory, to the extent that, as a result of the existing treaties, the EU cannot compel individual member states to take specific measures. However, these proposals become continuously more specific and sooner than later the EU will come to the point that it will set the minimum essential specifications of the retirement system in each and every country within the Union. There are already official EU sponsored bodies, such as the “High-Level Working Party on Social Protection”, that study the issue.

The contribution of private insurance in the configuration of a modern retirement environment in the EU, constitutes an expressed position and proposal of the European Committee to the Union’s member states. The customization of this propensity for Greece is expected to become visible in the immediate future.

2.4.6.2. The Non-Life Sector

Despite its long history, the Greek general insurance industry is still underdeveloped but has a great growth potential. For instance, the insufficient number of earthquake insurance policies in effect in a country with tremendous earthquake activity is noteworthy. More specifically, the general insurance sector has very big growth potential regarding the general economic activity (assets insurance and entrepreneurial activity liability), as well as private fortune insurance.

It must be said that the market penetration of general liability insurance is still quite low. Its potential is quite strong and it is expected that general liability will contribute considerably to the development of the market in the years to follow. The prevailing trend in the EU with regard to the protection of employees and consumers shapes a favourable environment for general liability insurance.
Regarding the problem of increased reinsurance cost, the industry considers this development as particularly unfavourable. It is believed, however, that the size of this problem will, to a large extent, decrease in a few years.

2.5. Challenges of the Greek Insurance Industry

The industry is taking decisive steps towards quality improvement and, although not many insurers have yet attained ISO certifications, various initiatives to boost service quality are being considered. These, when implemented, are expected to have the potential to enhance and sustain insurance quality in Greece. However, several challenges must be addressed by the industry on its way to quality excellence.

Reliability of Insurers - The unreliability of certain insurance companies affects negatively the industry’s image, according to the Union of Greek Insurers. A study of ICAP (2003a), held on behalf of the Association of Greek Insurers, confirms that solvency related questions create mistrust to consumers of, mainly, the life sector. According to the same study 48% of consumers consider that the insurance market is characterized by a lack of professionalism (ICAP, 2003a).

Insurance products and services - Major life insurers are continuously producing and promoting to the market flexible, differentiated products and services to cover all possible insurance needs. However, often the cost associated with such services is very high and they can only be bought by individuals in the higher income brackets. 35% of consumers, according to the study of ICAP (2003a) share this opinion. In the non-life sector, particularly in sub-sectors where insurance is mandatory, the major concern of both insurers and customers is, usually, to reduce cost and, consequently, quality is considered as a secondary aspect.

After sales service and support - One of the main reasons for the formation of a negative attitude towards the insurance industry by the public opinion is the quality of after-sales service and support. According to 34% of consumers, insurers find various pretexts in order to avoid fulfilling their promises (ICAP 2003a). Customers, particularly in the life sector, often feel that they are not served or are not covered sufficiently, or discover that the terms of their contracts do not correspond to the promises given to them. In the land vehicles sector, there are numerous cases of refusal of direct compensation by the insurers involved. They prefer to initiate legal conflicts that can
go on for years, and force their adversaries to accept their claims to be settled with very low amounts, in order to avoid legal complications.

**Sales networks** - The negative picture of the insurance market is shaped, to a large extent, from insurance intermediaries i.e. agents and brokers. 43% of consumers consider that insurance agents usually fail to, fully, explain the terms of contracts they propose, and finally sell (ICAP, 2003a). Consumers rank as the most important characteristics of insurance advisers the care for customer’s interests, sincerity and in-depth knowledge of insurance. Despite this, until recently, becoming an insurance agent was very simple. Any Senior High School graduate could become such an agent after a short internal training course offered by the company with which he collaborated. People were becoming insurance advisors for short periods of time, usually for some weeks or months, and the percentage of those remaining in the profession for a period of more than a year was less than 1%. With a recent ministerial decree, the Ministry of Development established strict criteria for the acquisition of an insurance agent’s licence. A 6 months probationary period, the attendance of a specific training course and certification after examinations are necessary for its authorisation.

**Unhealthy competition** – A number of insurers are engaged in price cuts practices, especially in the industry’s major non-life sector, “compulsory motor third party liability”, which records underwriting losses for a number of years. These price cuts negatively affect insurers’ income while claims escalate yearly and the cost of acquiring new business and other expenses continuously rise, thus undermining insurer’s solvency. It is expected that, unless these practices are soon brought to an end, a number of insurers will be driven out of business. In fact three of these insurers lost their licences during 2005 because of inadequate solvency margins.

**Solvency margins** – Both EU and National legislation provides that insurers maintain a solvency margin depending on their business volume and portfolio. There is a rumour from time to time, that certain insurers, the identity of which is not specified, fail to meet the required solvency margins and for the protection of the public interest their operations should be suspended. However, the monitoring authorities lack the political will to announce whether these rumours reflect the reality and, if they do, to proceed to the identification of the insolvent companies and suspend their licences. As far as the authorities do not do so they offer a bad service to the industry as a whole by letting rumours destroy its reputation.
Globalisation – Greece is an open European economy fully participating in the EMU and its insurance industry is wide open to competition from international players. Competition becomes more diverse taking the form of alternative sales channels, new mergers and alliances, new products, transitions in the regulatory and legal framework etc. Globalisation has raised the cost of operation as insurers invest heavily in IT (Reuters, 1999a).

Web-based technology (IT) - The insurance market is increasingly considering transacting insurance business through the web. The ability of the industry to provide services through the web is particularly important when demographic changes are considered in relation to consumers and their insurance requirements. Retaining and meeting customer needs will be increasingly difficult for insurers. For insurers, priority should be to use the web to re-engineer processes, enhance existing distribution channels and create new distribution channels (Pieroni, 2002). This is a very challenging time for insurance markets, insurers fighting for market share need to rationalize their processes, improve their distribution and develop revenue models based on new, slimmer margins. Drury (2003) suggests that the web looks to influence the insurance landscape of the future by allowing companies to:

- Reduce processing expenses by reforming the administration of business,
- Design more competitive products by incorporating the speed, flexibility and interactive capabilities of the web
- Grow markets by generating more leads and expanding markets more quickly at a relatively lower cost thereby increasing revenue,
- Improve returns by expanding investment strategies.
3. REVIEW OF THE LITERATURE

3.1. Overview

This chapter contains a review of the literature on the main drivers of customers’ behaviour, i.e. customer loyalty, customer satisfaction, price, value and service quality, placing an emphasis on services and relationships between variables. The chapter goes on with a review of the literature on culture with emphasis on its links to perceived service quality and customer satisfaction. Finally, a separate section is devoted to the literature gaps that this research attempts to fill.

3.1.1. A note on terminology

The terms consumer and customer differ in that consumer is “one that utilizes economic goods” while customer is “one that purchases a commodity or service” (Encyclopedia Britannica Online Dictionary). A consumer may or may not personally purchase the commodity/service he/she utilizes whereas a customer may purchase (and pay for) a commodity/service for someone else to utilize. In financial services, and especially insurance, the terms consumer and customer most often refer to the same individual as the insured is usually the policy owner. For this reason the two terms “consumer” and “customer” are used interchangeably in this chapter.

3.2. Introduction

In their effort to improve performance, companies use aggressive or defensive marketing strategies and tactics (Fornell and Wernerfelt, 1987, 1988; Ennew and Binks, 1996). Aggressive marketing is about acquiring new customers through business expansion and increasing market shares at the expense of competition. Defensive marketing, on the other hand, deals with protecting products and markets from competition (Fornell, 1992) through influencing existing customers to maintain their relations with the company (Fornell and Wernerfelt, 1987, 1988). Although traditionally much more effort and resources are directed towards aggressive marketing (Fornell, 1992), research has shown that building long-lasting relations with customers may be more profitable (Grönroos, 2000).

Both aggressive and defensive marketers are trying to anticipate the behaviour of their customers or prospective customers. However, the behaviour of customers cannot be comprehended unless its dimensions and dynamics are fully understood.
### 3.3. Behaviour of Customers

Researchers and managers consider that the behaviour of customers is mainly driven by their **loyalty** (or disloyalty) to their supplier (Jacoby and Kyner, 1973; Bansal and Taylor, 1999) which is primarily influenced by their **satisfaction** with the supplier and its products/services (Mittal and Kamakura, 2001; Bloemer et al., 2002; Chumpitaz and Paparoidamis, 2004). Customer satisfaction is, in turn, influenced by **product/service quality**, **price** and **other marketing variables** either directly or through **value** (Bonner and Nelson, 1985; Parasuraman et al., 1985; Cronin and Taylor, 1992; Kordupleski et al., 1993; Keiningham et al., 1994/1995; Rust et al., 1995). On the other end, the behaviour of customers is associated with **profits** and the **overall performance** of organizations (e.g. Fornell and Wernerfelt, 1987, 1988; Reichheld and Sasser, 1990; Anderson and Sullivan, 1993). All these variables are interconnected forming a network (Figure 3.1.), the constituent variables and links of which I will examine in the sections that follow.

![Figure 3.1. - Antecedents and Consequences of Customers’ Behaviour](image)

### 3.4. Customer Loyalty

Although the concept of customer loyalty has been extensively researched, no consensual definition for customer loyalty has been developed yet. A plausible explanation
for this might be that customer loyalty does not apply in exactly the same way to all situations.

In general, customer loyalty is thought to reflect how much customers wish to maintain their relation with a specific supplier and it usually comes as a result of the extent to which customers believe that what they get from this supplier is worth more than what they get from others. An exact definition of customer loyalty, however, may include a variety of attitudes and behaviours and may well be situation specific (Kroenert et al., 2005). Kroenert et al. (2005) propose that customer loyalty may include:

- **Psychological commitment** – the emotional connection of customers to the product or service and its supplier
- **Referenceability** – the intention of customers to refer positively to the product or service and its supplier
- **Purchase history** – whether customers purchased from the same company persistently in the past
- **Repurchase intentions** – whether customers plan to buy from the same supplier in the future
- **Future purchase levels** – the amount of money customers plan to spend in the future with the specific supplier
- **Perception of competitive advantage** – whether customers feel that a company’s products or services provide a competitive advantage to them
- **Satisfaction** – the level of satisfaction of customers with a product/service and its supplier.

### 3.4.1. Loyalty Dimensions

There are two main dimensions of customer loyalty, “**behavioural**” loyalty and “**emotional**” or “**attitudinal**” loyalty (Jacoby and Kyner, 1973). Behavioural loyalty is assumed to reflect the preference structure of customers. It deals with specific behaviours related to repurchasing the service, e.g. customer retention is an expression of behavioural loyalty (Bansal and Taylor, 1999). The main strength of this approach is that it offers a relatively objective measurement of customer loyalty, i.e. repur-
chases. A weakness, however, is that it does not offer any proper explanation about the existence of loyalty.

Behavioural loyalty is equally important to emotional loyalty (Reinartz and Kumar, 2002). Emotional loyalty is defined as the customer’s likelihood to recommend the service/product and its supplier to other prospective customers. Loyal customers are known to make positive referrals about a service or company to friends, relatives and colleagues (Soderlund, 1998; Ranaweera and Prabhu, 2003) influencing their purchasing intentions (Silverman, 2001; O’Mitchell, 2005). Such activities are driven by the real emotion of customers for the service provider (Ranaweera and Prabhu, 2003) and are generally termed as word-of-mouth communications. Emotional loyalty has been extended to incorporate the concept of “relative attitude” reflecting the extent to which a customer’s assessment of a product/service overrules the assessment of another.

A gap exists in the literature, regarding the relationships between the behavioural and emotional dimensions of loyalty. Thirty years ago, Ajzen and Fishbein (1977) argued that attitude (emotional loyalty) and behaviour (behavioural loyalty) are consistent in most situations and that attitude is a strong predictor of behaviour. Quite recently, Luarn and Lin (2003) found that, in an e-service setting, the direction of the causal relationship between the two dimensions is from attitudinal to behavioural loyalty. This finding gained support from Bandyopadhyay and Martell (2007) who examined the causal relationship between attitudinal and behavioural loyalty, in a mass consumption goods setting, and found that behavioural loyalty is influenced by attitudinal loyalty. However, no definite conclusions have been presented in the literature on the relations between the two dimensions of loyalty (Durvasula et al., 2004) as in most studies these are examined as distinct constructs with no association between them.

3.4.2. Consequences of Customer Loyalty

Customer loyalty has been connected to profits through increased customer retention (e.g. Fornell and Wernerfelt, 1987, 1988; Reichheld and Sasser, 1990; Anderson and Sullivan, 1993). In this respect, it has been found that the average annual profit per customer grows constantly over the years that the customer remains with a company (Grönroos, 2000). The effect of loyalty on profits is attributed to five distinct factors (Figure 3.2.), i.e. acquisition costs, revenue growth, cost savings, price premiums and referrals (Reichheld, 1996). These factors will be discussed below.
Acquisition costs. Most companies are compelled to spend heavily on aggressive marketing to acquire new business. It is estimated that it costs five or six times more to acquire a new customer than keeping an existing customer satisfied (Grönroos, 2000). In figure 3.2 the customer acquisition cost appears as a negative profit in the year before the relation with the customer starts.

Base profit. In many industries (e.g. insurance) the price paid by customers does not cover the cost of service in the first few years (Zeithaml et al., 1996). In other industries the price covers the cost of service and allows for a small profit, termed the base profit. In most industries the base profit accumulates over the years to cover the initial acquisition costs. Obviously, the longer the relation with the customer the longer the company earns this base profit (Reichheld, 1996).

![Figure 3.2. - The Effect of Loyalty on Profits](image)

Source: Grönroos, 2000

Revenue growth. Most companies are able to make repeat sales to their long standing customers. This means that the average annual revenue per-customer increases over the years, thus contributing to the company’s profits. In insurance, for example, persistent customers contribute to the revenues of insurers in more than one way. Not only the premiums they are charged with are increased by 8%-12% each year but persistent customers are known for their tendency to consolidate their policies to do business with a single insurer (Reichheld, 1996). It is not surprising that high persistency
rates (the insurance equivalent to customer retention) are essential for the economic performance of insurers (Diacon and O’Brien, 2002).

**Cost savings.** As the company and the customer get to know each other, experience makes the relationship smoother and customers can be served more efficiently. Thus operating costs decrease and, as a consequence, profits increase (Reichheld, 1996).

**Premium prices.** In most businesses long-lasting customers pay effectively higher prices than newcomers. No price-cuts or introductory offers apply to old customers. In addition long-lasting customers may willingly pay more because they realize the value they are getting from the specific provider (Grönroos, 2000).

**Referrals.** Long standing customers are engaged in positive word-of-mouth communications. They recommend the supplier and its services to friends, relatives, neighbours, and colleagues, so enhancing the effort of companies to acquire new business. Positive word-of-mouth decreases the need for marketing expenses and can increase revenues to the extent that new customers are attracted (Reichheld and Sasser, 1990).

Word-of-mouth communication creates advertising, competing with or enhancing traditional advertising. Marketers try to use word-of-mouth to their advantage by getting people to talk favourably to others about products and services and their producers (O’Mitchell, 2005).

In financial services, where customers take high stake decisions, word-of-mouth is of particular importance (O’Mitchell, 2005). Prospective customers are more likely to use friends, family, and associates as sources of information than using advertisement or ranking services. In insurance, friends and relatives constitute one of the top three sources of information. Financial professionals rely heavily on word-of-mouth for new business. Customers with a good service experience with a financial professional will spread the word about the financial professional with whom they did business.

Word-of-mouth has come to be highly valued by advertisers because of its credibility. Individuals are more inclined to believe word-of-mouth promotion than other promotional forms because the communicator is considered as having no connection with the service provider. In addition, people tend to believe people that they know. Word-of-mouth is considered more objective and word-of-mouth recommendations are valued more than advertising (O’Mitchell, 2005). However, because its positive results can-
not always be directly measured, word-of-mouth is sometimes considered merely as a side benefit of satisfaction or as a low-cost, alternative promotional solution.

3.4.3. Antecedents of Customer Loyalty.

In explaining how loyalty is produced, three variables have been mostly discussed in the literature; service quality, customer satisfaction, and price. These will be examined in the following sections.

3.5. Service Quality

Because of the explosive development of service sectors worldwide, service quality is today considered as a driver to corporate marketing and financial performance (Buttle, 1996), the foundation of services marketing and the basis of sustainable success and survival in the marketplace (Fitzsimmons and Fitzsimmons, 2001). Service excellence is no more a matter of courteousness or corporate offering but the most decisive weapon in a firm’s quiver and the concept of service quality has been subjected to extensive research. It is worth noting that in June 2006, almost 7,000 articles with the term “service quality” in their citation and/or abstract were available in the ABI/INFORM database.

However, a definition of service quality is not straightforward. Service quality is a synthetic term and no such definition can be attempted before the term’s components are discussed.

3.5.1. Services

Although services contribute almost 80% to the world’s economy, consensus on the definition of “service” is yet to be reached. “Despite more than 25 years of study, scholars in the field of service management do not agree on what a service is. Indeed, instead of coming closer to a definition they seem to be less certain” (Haywood-Farmer and Nollet, 1991).

Services have been defined as intangible and perishable goods, produced and consumed simultaneously (Sasser et al., 1978), activities or series of activities of more or less intangible nature provided as solutions to the customer’s problems (Grönroos, 1990), processes, and performances (Zeithaml and Bitner, 1996; Grönroos, 2000), time-perishable and intangible experiences performed for a customer who acts as a co-producer, (Fitzsimmons and Fitzsimmons, 2001), etc.
Many of these definitions either directly or implicitly refer to the distinct characteristics of services as compared to physical goods (Table 3.1.)

**Table 3.1. Differences between Services and Physical Goods**

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

Source: Grönroos, 2000

The most important characteristic of services is that they are “processes consisting of a series of activities where a number of different types of resources are used, often in direct interactions with the customer, so that a solution is found to the customer’s problem” (Grönroos, 2000). Most other characteristics are consequences of the process nature of services (Grönroos, 2001).

While tangible goods are first manufactured and then stored, transported, sold and used, most services are first sold and then simultaneously produced and consumed. While customers of tangible goods rarely visit a manufacturing plant, most services require the physical presence of customers to be simultaneously produced and consumed (Berry, 1999). Because of the **inseparability** of production and consumption, services cannot be subject to a predetermined quality control process or marketed in the traditional way (Grönroos, 2000).

As services are very often produced during an encounter between humans, service-employees and service customers (Drew-Rosen et al., 2003), services are bound to be **heterogeneous** to the extent that the performance of humans varies. Services are bound to be heterogeneous even when they are not provided through service-employees but through automated machines, such as ATMs. Different customers may have varying attitudes towards automated service machines or even different capabilities in handling them.
The essence of service, however, is intangibility (Zeithaml et al., 1990) despite some services including certain tangible elements. Because of intangibility services are perceived by customers in subjective and highly abstract ways (Grönroos, 2000).

3.5.2. The Service Package

Customers perceive services as bundles or packages with two main ingredients, the “service outcome” or “core service”, and the “service experience”. The service outcome describes the result of the service for the customer, i.e. “what” the customer gets from the service. The service experience on the other hand is the customer’s perception of the service process, i.e. “how” the service was provided. This generally depends on: how front-line employees deliver the service to customers, the organization and its facilities and a number of “peripheral” services that facilitate the offering of the core service (Grönroos, 2000). Fitzsimmons and Fitzsimmons (2001) define a service package as a bundle of goods and services consisting of supporting facilities, facilitating goods, and explicit services.

3.5.3. Quality

The term quality comes from the physical goods literature. To most people quality is associated to tangible items but not always to services. Defining quality has always been challenging. Even the quality “gurus”, W. E. Deming and J.M. Juran, struggled to find the exact words to put in a definition of quality.

Juran offers two definitions of quality (Juran and Godfrey, 1998): "Quality means those features of products which meet customer needs and thereby provide customer satisfaction" and "Quality means freedom from deficiencies-freedom from errors that require doing work over again (rework) or that result in field failures, customer dissatisfaction, customer claims and so on". Deming (1986), on the other hand, goes around a definition of quality, explaining that quality means different things to different people, depending on the situation. Finally, he suggests that the customer's definition of quality is the only one that matters.

Quality is also defined as "conformance to requirements" (Crosby, 1979) or as “... a customer’s determination” (Feigenbaum, 1983). Garvin (1984) defined quality as a function of eight dimensions: performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality.
The American Society for Quality (http://www.asq.org/), in line with Feigenbaum (1983), defines quality as “a subjective term for which each person has his or her own definition” adding that in technical usage, quality can have two meanings, i.e. “the characteristics of a product or service that bear on its ability to satisfy stated or implied needs” or “a product or service free of deficiencies”. International standard ISO 8402(1994) defines quality as “the totality of characteristics of an entity (product, service, process, activity, system, organization, person) that bear on its ability to satisfy stated and implied needs”.

Service providers, such as financial service organizations, hospitals, educational institutions etc. define quality in their own terms. Their mission is more difficult because they have to redefine terms like "customer", "supplier" and "defect", the definitions of which in a service context differ dramatically from the traditional manufacturing-based definitions.

### 3.5.4. Definition of Service Quality

As a result of the characteristics of services, the principles and practices of product quality control cannot be used for assessing service quality. Service intangibility implies that the criteria for a flawless service are not only less specific than the criteria for a defect-free tangible good (Berry and Parasuraman, 1991) but also exceptionally composite and not easily identifiable.

From the marketer’s perspective, service quality can be viewed as the level of service attributes needed to make the service acceptable and profitable in the market place, thus, satisfying the marketers’ needs for profitability and economic success. On the other hand customers view service quality as equivalent to the level of service attributes required to satisfy their own needs and requirements. In this respect marketers try to define service quality in advance while customers make during and after use evaluations.

Customers perceive service quality in a subjective (sometimes irrational and sentimental), way and in clearly human terms (Lewis, 1993) and, because of service intangibility and impermanence, by referring to their general experience and/or memories (George and Hazlett, 1997). One thing is clear, unlike products the quality of services is evaluated by customers not only by the service outcome (core service) but also by
Chapter 3. Review of the Literature

the production and delivery process as well as by the “peripherals” related to the service (Zeithaml et al., 1990; Zeithaml and Parasuraman, 2004).

To assess the quality of services, and form an impression about the relative inferiority/superiority of a service provider and its services (Bitner and Hubert, 1994), customers compare the level of the service delivered to them with their own personal expectations, shaped by past experience (Grönroos, 1982, 1984; Lehtinen and Lehtinen, 1982; Lewis and Booms, 1983). The result of this comparison is defined as perceived service quality (Grönroos, 1982, 1984; Takeuchi and Quelch, 1983; Parasuraman et al., 1985, 1988). Perceived service quality has been defined as the customer’s global attitude or judgement “related but not equivalent to satisfaction” of the overall excellence or superiority of a service (Parasuraman et al., 1988).

What counts in services is the conformance to the wishes of customers rather than to any predetermined set of specifications (Berry et al., 1988). As Lewis and Booms (1983) put it “service quality is a measure of how well the service level delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis”. This means that, in the final analysis, customers are the exclusive judges of service quality no matter what the marketer thinks. If customers disagree with the marketer’s perspective then the service is problematic (Berry and Parasuraman, 1991). “There is no other fact or reality about service quality but what customers perceive about a service” (Lewis, 1993).

3.5.5. Conceptualization of Service Quality

Initial conceptualizations of service quality (Grönroos, 1982, 1984; Parasuraman et al., 1985) were based on the disconfirmation paradigm (Oliver, 1980), stemming from the natural goods quality literature. The disconfirmation paradigm defines service quality as a result of the comparison between perceived and expected service performance.

In this respect, researchers have generally adopted either the Nordic (European) model (Grönroos, 1982, 1984), or the American model developed by Parasuraman et al. (1985, 1988). Although the American model dominates the literature there is no unanimity on which of the two, or some other, conceptualizations better portrays perceived service quality (Brady and Cronin, 2001).

3.5.5.1. The Nordic Model
The Nordic (or European) model is based on the work of Christian Grönroos (1982, 1984) who considers services as products requiring to a large extent the customer’s involvement in the process of simultaneous production and consumption. Grönroos (1982, 1984) separates service quality into “technical quality” related to the result of the service, i.e. “what” the customer gets and “functional quality” reflecting the way that the service is delivered, i.e. “how” the customer gets the service. He proposes that customers’ expectations for a service are influenced by such factors as: traditional marketing activities by the firm (promotion, pricing, availability etc), external influences (tradition, habits, ideology, political beliefs etc), and word-of-mouth (Grönroos, 1984).

Perceived service quality is influenced by the “technical” and “functional” quality of the service delivered by the company through “image”, a function of “technical” and “functional” quality. Grönroos’s service quality model is graphically presented in Figure 3.3.

**Figure 3.3. The Nordic Service Quality Model**

![Diagram of the Nordic Service Quality Model](image)

Source: Grönroos, 1984
The main criticism addressed to the Nordic model, and perhaps the reason behind its lack of popularity compared to the American model, is that it does not offer explanations on how to measure the different aspects of service quality, especially technical quality. As a result, researchers have to develop their own scales each time they need to measure technical quality (Kang and James, 2004) and different items have been used in different studies for this purpose. Technical quality is usually measured using qualitative methods. For example Brady and Cronin (2001) reportedly used open-ended surveys asking customers to identify the particular attributes of technical quality while Richard and Allaway (1993) and Powpaka (1996) used in-depth interviews to discover its parameters.

3.5.5.2. The American Perspective

The American model of service quality, (Figure 3.4.), known as the Gaps Analysis Model or simply the Gaps Model, was introduced by Parasuraman et al. (1985, 1988) as a result of a qualitative research project aiming at the investigation of service providers’ perceptions of service quality, problems and processes created during the delivery of quality services, customers’ perceptions of the basic characteristics of quality, differences in quality perceptions between customers and service providers and the development of a general conceptual model for service quality that will take into account both the marketers’ and the customers’ viewpoints.

From the service providers’ perspective Parasuraman et al. (1985) identified four Gaps reflecting various discrepancies in the process of delivering services of high quality:

Gap 1: The discrepancy between customers’ expectations and the management’s perception for these expectations.

Gap 2: The discrepancy between the management’s perceptions for the expectations of customers and the translation, of these perceptions, into specifications for delivering high quality services.

Gap 3: The discrepancy between service quality specifications and the actual quality of services delivered and

Gap 4: The discrepancy between the services offered and what is communicated by companies to their customers regarding these services.
From the customers’ perspective Parasuraman et al. (1985) defined perceived service quality as the size and direction of Gap 5 (Figure 3.5.), a function of Gaps 1, 2, 3 and 4, reflecting the discrepancy between expected and perceived service through initially ten and finally five core components (dimensions) of service quality (Parasuraman et al., 1988). The initial ten dimensions were: reliability (consistent performance and dependability), responsiveness (willingness/readiness to serve), competence (possessing knowledge and skills), access (approachability and ease of contact), courtesy (politeness, consideration and friendliness of staff), communication (updating and listening to customers), credibility (trustworthy and reputable, with customer interests at heart), security (freedom from danger and risk), customer knowledge (understanding needs and personalised attention), as well as tangibles (facilities and physical features).

As a result of subsequent research these dimensions merged into five broader categories; Reliability – the firm’s ability to perform the promised service dependably and
accurately, **Responsiveness** – the firm’s willingness to help customers and provide prompt service, **Assurance** - the knowledge and courtesy of employees and their ability to inspire trust and confidence, **Empathy** – the caring, individualized attention the firm provides to its customers and **Tangibles** – the level of the tangible elements of service (Parasuraman et al., 1988).

**Figure 3.5. - Determinants of Perceived Quality of Service**

<table>
<thead>
<tr>
<th>Dimensions of Service Quality</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Reliability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Responsiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Assurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Empathy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Tangibles</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Modified from: Parasuraman et al., 1985 and Parasuraman et al., 1988

The Nordic school criticizes the Gaps Analysis model in that it refers only to functional quality without really referring to technical quality. The Nordic school followers claim that the Gaps Analysis model offers no explanation about “what” must be reliable, responsive, assured, empathetic, and tangible. The argument is that if the perception of overall service quality is a latent variable then it must refer to something which is not evident in the Gaps Analysis model (Brady and Cronin, 2001). Further, the American model does not offer clear procedures for the measurement of the gaps in the marketer’s side but only for Gap 5 for which Parasuraman et al. (1988) introduced the SERVQUAL scale.

**3.5.5.3. Alternative Service Quality Models**

A number of alternative service quality models have been presented over the years, referring to conventional and, recently, electronic services. Most of these models are ei-
ther extensions of the American model or combinations of the Nordic and American
perspectives. Some of these models will be briefly introduced in this section.

Haywood-Farmer (1988) introduced the Attribute Service Quality Model stating
that “high quality” reflects an organization’s ability to consistently meet customers’
preferences and expectations. According to the model, services have three basic sets
of attributes: physical facilities and processes; people's behaviour; and professional
judgment. Too much concentration on any one of these sets of attributes, to the ex-
clusion of others, may lead to disaster. Haywood-Farmer (1988) tried to map different
types of service settings as per degree of contact and interaction, degree of labour in-
tensity and degree of service customization in this model. For example services with
low customer contact, customization and labour intensity (utilities, transportation of
goods etc.), are closer to the physical facilities and processes set of attributes. Thus,
the model suggests that special care must be taken to make sure that equipment is reli-
able and easy for customers to use. The model does not offer a system for measuring
service quality or a procedure that will help management to identify service quality
problems.

In an attempt to synthesize the Nordic and the American perspectives into a single
model, Brogowicz et al. (1990) introduced the Synthesised Model of Service Qual-
ity. The overall service quality gap is defined as a function of technical and functional
quality gaps. Managers must determine both what customers expect and how they ex-
pect to get it and plan, implement, and control the service offering to limit, reduce, or
eliminate service quality gaps. The model considers three factors: company image,
external influences, and traditional marketing activities as influencing technical
and functional quality. A service quality gap may exist even when a customer has not
yet experienced the service. Thus, there is a need to incorporate potential customers' perceptions of service quality offered, and actual customers' perceptions of service
quality experienced. The model lacks empirical justification in different types of ser-
vice settings.

Johnston et al. (1990) recognized 15 quality factors in 3 categories, hygiene factors
expected by the customer and which cause dissatisfaction if not delivered, enhancing
factors leading to customer satisfaction but not leading to dissatisfaction if not deliv-
ered, and dual threshold factors causing satisfaction or dissatisfaction according to
the level of their delivery. The idea is similar to that of Cadotte and Turgeon (1988)
who separated the factors of quality to **satisfiers** causing compliments if they exist but no complaints if they are absent and **dissatisfiers** causing complaints if they exist but no compliments if they are absent.

Disputing the framework of Parasuraman et al. (1985), regarding the conceptualization and measurement of service quality, Cronin and Taylor (1992) stated that service quality can be conceptualized as “similar to an attitude”, and proposed that service quality can be better operationalized by the adequacy-importance model. They presented the **Performance Only Model** arguing that Performance instead of “Performance minus Expectation” determines service quality and developed a performance only scale called SERVPERF (to be presented in subsequent sections) by illustrating that service quality is a form of customer attitude and the performance only measure is an enhanced means of measuring service quality.

Mattsson (1992) argued for the value approach to service quality, modelling service quality as an outcome of the satisfaction process and presented the **Ideal Value Model of Service Quality**. This model suggests the use of a perceived ideal standard against which the experience is compared. Implicit negative disconfirmation on a pre-conscious value level is then hypothesized to determine satisfaction on a “higher” attitude level. The model considers negative disconfirmation as the major determinant of customer satisfaction and proposes that more attention should be given to cognitive processes by which customers' service concepts are formed and changed.

Philip and Hazlett (1997) proposed the **PCP Attribute Model**, a hierarchical structure based on three main overlapping levels of attributes - **pivotal**, **core**, and **peripheral** (P-C-P) - jointly representing inputs and processes including the vast majority of the dimensions and concepts used, up to that point in time, to define service quality. The P-C-P model has the ability to span any service sector since it provides a skeletal framework within which respective services are considered. The pivotal attributes, located at the core, are considered collectively to be the single most determining influence on why the customer decides to approach a particular organization and exert the greatest influence on the satisfaction levels. They are defined as the “end product” or “output” from the service encounter; in other words what the consumer expects to achieve and receive, perhaps even “take away”, when the service process is duly completed. Core attributes, centred on the pivotal attributes, can best be described as the amalgamation of the people, processes, and the service organizational structure.
through which customers must interact and/or negotiate so that they can achieve/receive the pivotal attribute. The peripheral level of the model focuses on the peripheral attributes also defined as the “incidental extras” or add-ons designed to add “roundness” to the service encounter and make the whole experience for the customer a complete delight. When a customer makes an evaluation of any service encounter, he/she is satisfied if the pivotal attributes are achieved, but as the service is used more frequently the core and peripheral attributes may begin to gain importance.

Dabholkar et al. (2000) presented the Antecedents and Mediator Model proposing that factors relevant to service quality are better conceived as its antecedents rather than its components and that customer satisfaction strongly mediates the effect of service quality on behavioural intentions. Perceptions and measured disconfirmation offer several advantages over computed disconfirmation, i.e. difference scores and a cross-sectional measurement design for service quality is preferred to a longitudinal design.

The Internal Service Quality Model (Frost and Kumar, 2000) is based on the concept of the Gaps Analysis Model (Parasuraman et al., 1985). The model evaluates the dimensions, and their relationships, that determine service quality among internal customers (front-line staff) and internal suppliers (support staff) within a large service organization. The dependent variable is internal service quality (ISQ), while the independent variables are tangibility, reliability, responsiveness, assurance, and empathy. The results suggest that the perceptions and expectations of internal customers and internal suppliers play a major role in recognising the level of perceived internal service quality. Internal gap 1 shows the difference in support staff's perception (internal supplier) of front-line staff's expectation (internal customers). Internal gap 2 is the difference between service quality specifications and the service actually delivered resulting in an internal service performance gap. Internal gap 3 is focusing on the front-line staff (internal customers). This is based on the difference between front-line staff's expectations and perceptions of support staff's (internal supplier) service quality.

Soteriou and Stavrinides (2000) presented the Internal Service Quality DEA Model that can be used to provide directions to a bank branch for optimal utilization of its resources. The model does not aim to develop the service quality measures, but rather guides how such measures can be used for service quality improvements. The model points out resources that are not properly utilized. The inputs to the model consist of
two sets: consumable resources such as personnel, space, time etc., and the number of accounts in different categories. The output of the model is the level of service quality perceived by the personnel of the branch. The DEA model compares branches on how well they transform resources (inputs) to achieve their level of service quality (output) given the client base identifies under-performers and suggests ways for their improvement. An input minimization DEA model provides information on how much, consumable resources could be reduced while delivering the same level of service quality, while an output maximization DEA model provides information on how much service quality can be improved using the same consumable resources.

Brady and Cronin (2001) extended the work of Dabholkar et al. (1996) and proposed a third order factor model that ties service quality to three main dimensions: service outcome, service interaction and environmental quality, each of which having a number of sub-dimensions. They proposed that for the sub-dimensions to contribute to improved service quality perceptions, the quality received by the customer must be reliable, responsive, and empathetic.

Broderick and Vachirapornpuk (2002), in an attempt to face the key challenges of Internet as a service delivery channel, that is how service firms can manage service quality in view of the significant changes that Internet’s remote formats bring to customer interaction and behaviour, presented the Internet Banking Model. The research used participant observation and narrative analysis of UK Internet Banking Web Sites to explore how Internet banking customers perceive and interpret the elements of the model. In the context of the Internet, five key elements are treated as central influences on perceived service quality: customer expectations of service, image/reputation of the service organization, aspects of service setting, actual service encounter and customer participation.

Zhu et al. (2002) presented the IT-Based Model linking customer perceived IT-based service options to traditional service dimensions as measured by SERVQUAL. The model attempts to investigate the relationship between IT-based services and customers' perceptions of service quality. Several key variables affecting customers' views of IT-based services are identified.

Santos (2003) presented a Model of E-Service Quality, with e-service being defined as service in cyberspace. This study proposes a conceptual model of e-service quality.
with its determinants. It is proposed that e-service quality have incubative (proper design of a web site, how technology is used to provide customers with easy access, understanding and attractions of a web site) and active dimensions (good support, fast speed, and attentive maintenance that a web site can provide to its customers) for increasing hit rates, and customer retention.

3.5.6. Service Quality Measurement

The pursuit of service excellence and the need of service providers to deliver services of high quality to their customers, according to the customers’ changing needs and expectations, have compelled firms to often assess the quality of their services to keep in line with the demands of the market. Zemke (2002) argues that once customers have experienced the possible, it is difficult for them to settle for less (service quality) and they always look forward and expect more from all providers without exception. For product/service providers to meet such challenges, they ought to be continually assessing their service quality, fix quality leakages, and benchmark with best practices/trend-setters regardless of economic sector. Service quality measurement has, therefore, become imperative for service/product providers.

3.5.7. Instruments for Measuring Service Quality

Several instruments for measuring service quality have been developed during the past two decades following the main debates on quality measurement, i.e. disconfirmation vs. performance-only measurement and service quality dimensions. The debate on dimensions is concentrated both on the number of dimensions and on whether dimensions are generalized or service specific. Usually, five dimensions are proposed, though several studies propose different numbers.

3.5.7.1. Disconfirmation Instruments - The SERVQUAL Scale

Disconfirmation instruments are based on conceptual models, which are, themselves, based on the disconfirmation paradigm. Prominent in this category of instruments is the SERVQUAL scale, a by-product of the Gaps Analysis Model (Parasuraman et al., 1985). SERVQUAL has been created for measuring the extent and direction of Gap 5 of the Gaps Analysis Model, i.e. the discrepancy between the customers’ perceived performance of a service and their expectations for the service (Parasuraman et al., 1985, 1988, 1991). The term expectations, as comparison standard, is used either in
terms of what customers believe “will” happen in a service encounter (predictions) or in terms of what “should” happen (expectations) (Berry and Parasuraman, 1991).

Customers provide performance and expectation scores, using identical Likert scales, for each of 22 distinct service-attributes along the five dimensions: reliability, responsiveness, assurance, empathy and tangibles. Service quality for each attribute is then quantified as the difference between the perception and expectation scores. A service is qualified as “quality service” when differences are greater or equal to zero, meaning that the service provider meets or exceeds customer expectations regarding certain or all service attributes.

SERVQUAL has been designed to fit the needs of a variety of service sectors, appropriately customized. The scale’s creators Parasuraman et al. (1988) suggest that “the instrument …… provides a basic skeleton through its expectations/perceptions format encompassing statements for each of the five service quality dimensions. The skeleton, when necessary, can be adapted or supplemented to fit the characteristics or specific research needs of a particular organization. SERVQUAL is most valuable when it is used periodically to track service quality trends, and when it is used in conjunction with other forms of service quality measurement”. That is, SERVQUAL was not meant to be a panacea for all service quality problems or an exclusive base for service quality assessment. It is more suitable for use within a wider framework for service quality assessment (Zeithaml and Parasuraman, 2004).

Customized SERVQUAL metrics have been used in a wide spectrum of service settings around the world, on numerous occasions in health care services (e.g. Clow et al., 1995), in a tires shop (Carman, 1990), in retail chains (Teas, 1993), in banking (Allred and Addams, 2000; Wang et al., 2003), in higher education (Santos, 2002), in insurance (Santos, 2002), in airlines (Santos, 2002), in ICT management (Sigala, 2004), in tourism (O’Neill and Charters, 2000), in sports (Theodorakis et al., 2001), in public services (Brysland and Curry, 2001; Ugboma et al., 2004), in financial services (Tahir and Wan Ismail, 2005), etc.

**3.5.7.2.Performance-Only Measures – SERVPERF**

The term "performance-only measures" refers to service quality measures that are based only on customers’ perceptions of the performance of a service provider, as opposed to the difference (or gap) between the customers' performance perceptions and
their performance expectations. Performance-only measures have been developed as a consequence of SERVQUAL assessment. These measures represent the idea that measuring perceptions of performance is enough to assess service quality. SERVPERF (Cronin and Taylor, 1992), consisting of the perceptions only part of the SERVQUAL scale, is the most renowned of these measures.

In constructing the SERVPERF scale, Cronin and Taylor (1992) used the SERVQUAL’s battery of service quality attributes and the scale’s dimensionality but they discarded the expectations portion. Cronin and Taylor (1992) examined the relevant performance of unweighted SERVPERF, SERVPERF weighted by importance (of dimensions) and SERVQUAL weighted by importance (of dimensions) for measuring service quality across four industries (banks, pest control, dry cleaning, and fast food) and offered empirical evidence that the unweighted SERVPERF explained more variance and was more parsimonious than the other two measures.

### 3.5.8. Disconfirmation vs. Performance-Only Measurement

As already mentioned the disconfirmation vs. performance-only measurement debate is among the main debates on service quality measurement with a number of researchers defending the main stream disconfirmation service quality measurement (SERVQUAL) and others disputing it (mostly in favour of SERVPERF) on both theoretical and operational grounds (Buttle, 1996).

#### 3.5.8.1. Disputing Disconfirmation Measurement

Cronin and Taylor (1992) suggested that SERVQUAL confounds satisfaction and attitude. They stated that service quality can be conceptually described as "similar to attitude" and proposed the “importance-performance” model as a better indicator of service quality. More specifically, they proposed that "performance" instead of "performance-minus-expectations" can better determine service quality and, as a result introduced SERVPERF. Addressing the criticism of Cronin and Taylor (1992), Parasuraman et al. (1994b) defended their position insisting that their research offers conceptual and empirical support that service quality can be measured as the discrepancy between expectations and perceptions. At a later stage, Brady et al. (2002) replicated and extended the study of Cronin and Taylor (1992) with similar results to theirs.

Subsequent to the study of Cronin and Taylor (1992), a number of researchers offered support to the idea that performance-only measures are superior to difference or gaps
measures. Babakus and Boller (1992) suggested that the expectation portion of SERVQUAL adds "no additional information" beyond what is obtained from performance perceptions alone while Brown et al. (1993) argued that SERVQUAL’s difference scores could lead to various psychometric problems and a non-difference scale would be more desirable. Further, Brown et al. (1993) claimed that both the reliability and discriminant validity of SERVQUAL were not as good as the reliability and discriminant validity of a non-difference metric. They pointed out that restricted variance resulted from the use of SERVQUAL and that a non-difference metric outperformed SERVQUAL in various psychometric estimates with respondents having to answer only half the questions. Parasuraman et al. (1993) responded to the criticism of Brown et al. (1993) by pointing out that the conceptual superiority of non-difference measures was arguable and suggesting that SERVQUAL has more diagnostic prospects and is, therefore, more practical than a perceptions only scale.

Teas (1993) also disputed the use of the “perceptions-minus-expectations” score as a measure of service quality, and pointed out that SERVQUAL’s expectations are normative expectations, similar to the ideal model in the customer satisfaction/dissatisfaction literature. Teas (1993) argued that the ideal model can be interpreted in two ways, the ideal point and a feasible ideal point, and suggested that SERVQUAL is compatible with neither. Defending their position on SERVQUAL’s “perceptions-minus-expectations” score, Parasuraman et al. (1994a) insisted that this definition is valid if the specific service characteristic is vectorial - that is if the customer’s ideal point is infinite - and could only be problematic if the customer’s ideal point is finite. They proposed that since customers are likely to consider SERVQUAL’s items as having vectorial attributes the problems indicated by Teas (1993) cannot be significant. Teas (1994) responded that the mere fact that some problems exist with SERVQUAL’s “perceptions-minus-expectations” scores is enough for disputing the initial conceptualization.

McAlexander et al. (1994) compared the applicability and efficacy of SERVQUAL, weighted SERVQUAL, SERVPERF and weighted SERVPERF in a dental health care setting and not only concluded that SERVPERF outperforms SERVQUAL but they also questioned the claim made by Parasuraman et al. (1994) that the measurement of expectations can serve as a diagnostic function for managers, on the grounds that patients had uniformly high expectations across all SERVQUAL dimensions.
Van Dyke et al. (1999) disputed the work of Kettinger and Lee (1995), who used a modified SERVQUAL instrument to assess the quality of services that are supplied by an information services provider, and suggested that their analyses do not confirm the findings of Kettinger and Lee (1995). Moreover, they proposed that the use of difference scores in calculating SERVQUAL contributes to problems with the reliability and discriminant, convergent and predictive validity of the measure. They suggested that caution should be exercised in the use of SERVQUAL scores and that further work is needed in the development of measures for assessing the quality of information services.

Lee et al. (2000) also offer support to the hypothesis that performance-only service quality measures explain more variance in overall service quality than difference scales and they suggest performance only metrics on the basis that they reduce the number of answers that a respondent must give by 50%.

It has also been argued that a key limitation of the SERVQUAL metric is that it does not allow for customers to have low quality expectations (Oliver, 1993) and that the disconfirmation approach to measuring quality runs into difficulty when complex services are evaluated as customers may not know what to expect, and even after the service is delivered they may not know with certainty “how good the service was” (Lovelock, 1996). Additionally, Haksever et al. (2000) proposed that the model may be appropriate for large service organizations but offers inaccurate representations of service quality in small firms.

3.5.8.2. Support for SERVQUAL

On the other hand, a number of studies offer support for various characteristics of SERVQUAL. Brensinger and Lambert (1990) confirm that the SERVQUAL metric performs well in concurrent validity while Babakus and Boller (1992) verify the face validity of the metric, as do Brown et al. (1993). Asubonteng et al. (1996) offer support for the internal reliability of the scale’s items constituting each dimension and Angur (1997) discusses favourably SERVQUAL’s convergent and discriminant validity.

Angur et al. (1999), based on data gathered from two major banks in India, find that SERVQUAL provides greater diagnostic information than the SERVPERF scale with no significant difference in the predictive ability of the two measures. Stafford et al.
(1999) tested the “efficacy of four approaches of measuring service quality (SERVPERF, SERVQUAL, the log of ratio, and ratio) in the USA insurance industry”. The log of ratio and the ratio methods are inferior to both the SERVPERF and SERVQUAL measures while the goodness-of-fit indicators showed that the SERVQUAL scale provided a better model than SERVPERF.

Cook and Heath (2001) conclude that SERVQUAL perfectly measures service quality in the private sector while O’Donnell (2001) considers SERVQUAL as the most appropriate metric in the banking industry, allowing bankers to identify problem areas, and Gi-Du et al. (2002) write in favour of SERVQUAL’s ability to measure internal service quality and consider its dimensions as distinct and conceptually clear.

Johns et al. (2004) examined the appropriateness of the two scales in Northern Cyprus and found that although SERVPERF showed marginally better reliability and validity, SERVQUAL was superior in terms of identifying service gaps while Hudson et al. (2004) assessed Importance-Performance Analysis (IPA), SERVQUAL, SERVQUAL weighted by importance of dimensions and SERVPERF, in the tourism industry, and found no statistical difference between the four methodologies.

3.5.9. The number of dimensions debate

SERVQUAL has also been criticised with regard to the number of service quality dimensions, especially in surveys conducted in different service settings and different countries. Ford et al. (1993), through an empirical study, were led to the conclusion that the scale’s dimensionality must be related to the country of application. Further, Asubonteng et al. (1996) based on a critical examination of 18 different empirical studies of service quality, concluded that the dimensions of quality are very likely to be related to the particular service industry under study.

To this respect, Imrie et al. (2002) propose interpersonal relations, a dimension important to Taiwanese customers, as not adequately addressed in SERVQUAL while Sureshchander et al. (2002) emphasise the significance of technological and human factors with bank customers in India. Other researchers such as Angur et al. (1999) and Wang et al. (2003) have also found the SERVQUAL dimensions to be inadequate in that they do not fully describe the service criteria important to customers of emerging markets.
Nevertheless, Parasuraman et al. (1991) have offered explanations for the differences in service quality dimensions that appear in many SERVQUAL studies. They proposed that “respondents may indeed consider that the SERVQUAL dimensions are conceptually distinct, but if their evaluations of a specific company on individual scale items are similar across dimensions then fewer dimensions will result. On the other hand if their evaluations of a company on scale items within a dimension are sufficiently distinct, more than five dimensions will result”.

3.5.10. Conclusion

It is clear that researchers are far from reaching a consensus on the superiority or inferiority of disconfirmation or performance-only measures. Nonetheless, SERVQUAL is still the most commonly used scale by service organizations and identified as the appropriate measurement tool for measuring service quality in the marketing literature (Brady et al., 2002). Practitioners like SERVQUAL because the Gaps Analysis approach seems to them a logical and straightforward concept (Wisniewski, 2001). In addition, once data have been analysed they can easily be visually presented to identify strengths and weaknesses relative to competition. They also like SERVQUAL because it can be used in a variety of ways: to define the average gap score for each service attribute and each dimension, to define the average weighted SERVQUAL score that takes into account not only the service quality gap for each dimension but also the relative importance of dimensions, for tracking the progress of customers’ expectations and perceptions, for benchmarking purposes with regard to competition, for identifying and examining customer segments, for assessing internal service quality (Zeithaml and Parasuraman, 2004) etc.

Hamer (2003) examines the use of disconfirmation and performance-only measures of service quality with regard to the main possible criteria that practitioners (and researchers) may have in mind for assessing the effectiveness of the measurement method when measuring service quality, i.e. accuracy, diagnostic ability, and parsimony. Hamer (2003) concludes that separate measurement of expectations and perceptions provides a more accurate assessment of service quality while providing the most information about the quality formation process. The information gained about the quality perception process allows the source of quality problems to be deduced. However, if the main interest of the researcher is parsimony, performance-only meas-
ures should be used while expectations and performance should be measured separately if the main interest is quality diagnosis.

In summary, the debate on the applicability of service quality measurement scales across cultures and service settings is still open and contributions to this debate are always welcome in the literature. Cross cultural replications of such scales produce additional knowledge about the universality and generalizability of the metrics. In the frame of this research a customized SERVQUAL metric is designed and tested for reliability, validity and dimensionality, on data collected from Greek insurance, the industry from which evidence is drawn. This research contributes towards narrowing the long-standing literature gap about the applicability and replicability of the SERVQUAL scale, across cultures and service settings, by reporting interesting findings from examining the metric’s behaviour, in an under-researched culture and an under-researched industry.

3.5.11. Quality of Services in Insurance

The insurance industry has recognised that the quality of services and the achievement of customer satisfaction and loyalty are fundamental principles of successful marketing. The quality of after sales services, in particular, leads to customer loyalty, persistence, cross-selling, and positive word-of-mouth communication.

However, insurers seem to be very unwilling to take all the necessary actions for improving their quality image. Some, mistakenly, define insurance quality as the insurers’ willingness to compensate sincere customers (Anderson and Skogh, 2003), others confuse quality with generosity which is insurers’ readiness to compensate more than a court would order (Roos, 1981). Insurers’ tendency to not adequately perform regarding their customers’ quality perceptions creates problems to them as the markets are extremely competitive and continuously become more so (Taylor, 2001).

3.5.11.1. Insurance Services

To address the issue of service quality in insurance one must take into account the specific characteristics of the industry. Insurance products and services are extremely complicated; perhaps there are no other products or services in the market for which such ignorance exists (e.g. Schlesinger and Graf von der Schulenburg, 1995; Leste and Wanderley, 1997).
Although certain researchers tend to identify the insurance contract with insurance itself, the latter is a self-existent service with particular characteristics (Schlesinger and Graf von der Schulenburg, 1991). In the goods-services spectrum, insurance is characterized as a "pure" service (Berry and Parasuraman, 1991) and as such can cause different expectations to customers compared to services that include a greater proportion of tangible elements (Zeithaml et al., 1993).

Because insurance is usually characterised by a substantial delay between purchase and use, many of its characteristics are not immediately evident. In most cases customers will not be fully informed about and aware of the exact features of their insurance policy before they actually need to use it, i.e. file a claim. The most important reason for purchasing insurance is the amendment of damages (which may or may not occur in the duration of an insurance contract) (Wells and Stafford, 1997; Anderson and Skogh, 2003) and this makes the claim settlement procedure the most critical incident of insurance. Only then customers can actually assess the value of the service they bought some time ago. This distinguishes insurance from the majority of services for which production and consumption occur simultaneously (Zeithaml et al., 1988).

Life insurance, in particular, is characterized by increased customer involvement because a) it must be tailored to cover specific personal or family needs; b) of the variety of insurance products and services available; c) of the legal complexity of various terms and conditions of the insurance contract and d) of the need for customer’s participation in various transactions and processes. These characteristics lead insurance customers to seek long-term relations with insurers in order to decrease risk and uncertainty (Mehta et al., 2002).

Even in the vehicles sector, where insurance might be considered as being homogeneous because third party liability terms are heavily regulated, the purchase of a policy cannot be based on price only as the costs of comparable insurance products are not usually available in printed form. The customer’s profession, age, driving experience, insurance class, residence, etc. influences the premium that must be paid (Schlesinger and Graf von der Schulenburg, 1995).

A number of studies, for example those of Wells and Stafford (1995), QIC and RIMS (Friedman, 2001a, 2001b), and the CPCU longitudinal studies (Cooper and Frank, 2006), have confirmed widespread customer dissatisfaction in the industry. The
American Customer Satisfaction Index shows that, between the summer of 1994 and the third quarter of 2005, the average customer satisfaction has decreased by 7.4% in the life and by 4.9% in the personal property sector (http://www.theacsi.org/).

An extensive investigation into the quality of services with regard to insurance claims settlement in the USA showed that, on average, customers’ expectations exceed their perceptions for the outcome (Stafford and Wells, 1996) while according to Leste and Wanderley (1997), customers do not usually trust insurers, their agents, and brokers considering that insurers are mainly interested in the time requirements of contracts and in short-term questions rather than in investing in quality and customer satisfaction.

3.5.11.2. Monitoring Quality in Insurance

Monitoring quality is of great interest to both insurers and market regulators (Wells and Stafford, 1995). Regulating authorities in different countries are, among others, commissioned with the task of monitoring the quality of insurance services.

In the European Union the financial services sector is characterized by complexity because of market fragmentation, barriers between individual sub-sectors, special prescriptive regulations, and insufficient penetration of national service providers to the common market (European Parliament, 2000). With regard to the quality of insurance services, the role of the national regulating authorities is minimal. In some member states there may be an ombudsman’s office collecting and processing consumers’ complaints on the performance of individual companies regarding claims settlements. In certain cases this office is even financed by the insurance companies rather than by the regulating authority. Industry-wide statistics may become available but figures for individual companies are rarely publicised.

The complaints handling authority, if such authority exists, may exercise some type of arbitration, but complaining customers may seek satisfaction only through formal judicial procedures (Rees and Ekkehard, 1999). In some member states, like Sweden, complaints related to consumer insurance are tried, free of charge, either by a consumer representative in municipal level or by the National Board of Consumer Complaints, a government body with three of its members coming from the insurance industry and two representing consumers (Anderson and Skogh, 2003). The European
Index of Customer Satisfaction of the European Organization for Quality does not currently include insurance.

In the United States, the duty of monitoring insurers’ service quality is assigned to the state regulating bodies, so the measurement of service quality is a concern of both insurers and regulators. Mostly, the tool used for measuring service quality by regulators is the "complaint ratio" (http://www.ins.state.ny.us/); a fraction with the numerator being the number of official complaints received (usually within a year) and the denominator being a measure of the total business in effect (usually total premium written or total number of insurance contracts) which is calculated yearly for each company (Wells and Stafford, 1995).

However, the “complaint ratio” as a measure of insurance quality does not portray the entire picture. It only includes customers who have filed an official complaint to the regulating body but not those who complained to their companies. Customers who have not filed complaints may still have problems and may not be totally satisfied. On the other hand a complaining customer does not necessarily reflect the majority’s attitude (Wells and Stafford, 1995). The “complaint ratio” is a general average and does not point out partial quality problems. Its exclusive use could mean that individual companies might not be able to recognize their specific quality problems (Stafford et al., 1998).

3.5.12. Some Studies on Service Quality in Insurance

Although the insurance industry has been focused on quality and certain positive measures have been taken with regard to service quality, there is not enough publicised research on quality in insurance. In this respect the industry seems to be introvert. However, a number of studies conducted either by (or on behalf of) the industry or by academics have been publicized. Some of these studies will be briefly presented in this section.

3.5.12.1. The CPCU Study

In September 2005, the Chartered Property Casualty Underwriters (CPCU) Society sponsored a study to determine the perceptions of those working in the industry of the main ethical issues facing the Casualty and Property Insurance Industry and compare the findings to those of similar surveys conducted in 1989 and 1999 (Cooper and Frank, 2006). Thirty two issues were presented to respondents, who were asked to rate
each issue on a 1-5 scale, with 1 meaning that the issue is not a problem today in the industry and 5 meaning that the issue is a major problem. Eleven of these issues were identified as being problematic (average rating >2.50). In Table 3.2 these are listed in descending rank together with their respective ranks in the 1999 and 1989 surveys and their average ratings in each survey.

**Table 3.2. Results from the CPCU Longitudinal Study**

<table>
<thead>
<tr>
<th>Issue</th>
<th>1989 Survey</th>
<th>1999 Survey</th>
<th>2005 Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank</td>
<td>Rating</td>
<td>Rank</td>
</tr>
<tr>
<td>Failure to identify the customer’s needs and recommend products and services that meet those needs</td>
<td>1</td>
<td>3.41</td>
<td>2</td>
</tr>
<tr>
<td>Lack of knowledge or skills to competently perform one’s duties</td>
<td>2</td>
<td>3.39</td>
<td>1</td>
</tr>
<tr>
<td>Pursuit of personal financial gain or other personal benefits interfering with the proper performance of one’s duties</td>
<td>8</td>
<td>2.74</td>
<td>7</td>
</tr>
<tr>
<td>Conflicts of interest involving business or financial relationships with customers, suppliers, or competitors that influence, or appear to influence, one’s ability to carry out his or her responsibilities</td>
<td>13</td>
<td>2.37</td>
<td>11</td>
</tr>
<tr>
<td>Failure to provide prompt, honest responses to customer inquiries and requests</td>
<td>4</td>
<td>3.20</td>
<td>4</td>
</tr>
<tr>
<td>Misrepresenting or concealing limitations in one’s abilities to provide services</td>
<td>5</td>
<td>2.88</td>
<td>5</td>
</tr>
<tr>
<td>Failure to provide products and services of the highest quality in the eyes of the customer</td>
<td>3</td>
<td>3.35</td>
<td>8</td>
</tr>
<tr>
<td>False or misleading representation of products or services in marketing, advertising or sales efforts</td>
<td>6</td>
<td>2.76</td>
<td>6</td>
</tr>
<tr>
<td>Making disparaging remarks about competitors, their products, or their employees or agents</td>
<td>14</td>
<td>2.26</td>
<td>10</td>
</tr>
<tr>
<td>Inaccuracy of books, records or reports</td>
<td>10</td>
<td>2.48</td>
<td>13</td>
</tr>
<tr>
<td>Failure to be objective with others in one’s business dealings</td>
<td>7</td>
<td>2.75</td>
<td>9</td>
</tr>
</tbody>
</table>

Source: Cooper and Frank, 2006

The industry’s 2005 image is not really different from its image in 1989 and 1999. Nine of the top ten issues identified in 1989, nine of the top issues identified in 1999 and eight of the top issues identified both in 1989 and 1999 are among the top eleven
issues in 2005. This clearly indicates that the industry has not taken enough measures to correct its image.

3.5.12.2. The QIC/RIMS Study

Following its establishment by the insurance industry in the USA, the Quality Insurance Congress (QIC) in cooperation with the Risk and Insurance Management Society (RIMS), developed a Quality Scorecard to investigate service quality in the insurance industry. A survey was conducted in 1989 and repeated in 1999, where risk managers were asked to rate the quality of services from insurers, brokers and third-party administrators in a wide variety of functions (Friedman, 2001a, 2001b). The publication of the findings, which presented a gloomy image, provoked a hostile reaction from the industry. Insurers felt that they were rated poorly owing to the defective instrument used and questioned the manner in which the research was conducted. On the other hand QIC and RIMS believed that the controversy was largely a result of the negative findings of the research regarding some aspects of the insurance industry and considered that the industry was merely protesting against its own poor image. Consequently, QIC experienced financial problems (as a result of reduced funding), and lack of support from the insurance industry and customers and eventually was disbanded in 1999 (RIMS, 2003).

3.5.12.3. The ICAP Study in Greece

In 2003 ICAP (a major Greek Market Research Consultancy) conducted a study on behalf of the Association of Greek Insurers regarding the consumers’ perceptions for the Greek insurance industry (ICAP, 2003) with the following issues emerging from this study:

Reliability of Insurers. Solvency related questions create mistrust in consumers of, mainly, the life sector. 48% of consumers consider that the insurance market is characterized by lack of professionalism.

Quality of insurance products and services. Major life insurers are continuously introducing flexible, differentiated products and services to cover all possible insurance needs. However, often the cost associated to such services is very high and they can only be bought by individuals in the higher income brackets. 35% of consumers, according to the study of ICAP (2003), share this attitude. In the non-life sector, particularly in sub-sectors where insurance is mandatory, the major concern of both insurers
and customers is, usually, to reduce cost and, consequently, quality is considered as a secondary aspect.

**Quality of after sales service and support.** According to 34% of consumers, insurers find various pretexts in order to avoid fulfilling their promises. Customers, particularly in the life sector, often feel not appropriately served or sufficiently covered, or discover that the terms of their contracts do not correspond to the promises given to them. In the land vehicles sector, there are numerous cases of refusal of direct compensation by the insurers involved. They prefer to initiate legal conflicts that can go on for years, and force their adversaries to accept their claims to be settled with very low amounts to avoid legal complications.

**Quality of sales networks.** 43% of consumers consider that insurance agents usually avoid to fully explaining the terms of contracts they propose, and finally sell. Consumers rank as the most important characteristics of insurance advisers the care for customers’ interests, sincerity, and in-depth knowledge of insurance.

### 3.5.12.4. Studies conducted by academics

Academics have also conducted a number of studies, mainly on assessing the insurance customers’ perceptions of service quality. In this respect several instruments found in the literature have been utilized, including SERVQUAL and SERVPERF.

Schlesinger and Graf von der Schulenburg (1991) suggest that the perceived service quality is a factor upon which the customer can distinguish between otherwise identical insurance products. There are other characteristics of insurance which also influence the customer’s choice, such as the company’s solvency, the category of bonus/malus or adaptations in the annual premium, the claims settlement procedures, the ways of payment available etc.

Wells and Stafford (1995) employed SERVPERF to measure service quality perceptions using data from four insurance companies in Texas and compared these perceptions with the “complaint ratios” used by state regulators. The most important of their findings are:

1. Lower complaint ratios are significantly related to higher levels of perceived service quality, as measured by SERVPERF, and this implies that regulators perceive service quality accurately.
2. Customers tend to rate service quality higher if they are aware of their right to complain to the regulator. The awareness that a consumer advocate exists may reduce feelings of helplessness, dissatisfaction, or resentment that consumers might ordinarily have when dealing with a large insurance company.

3. A consumer's actual knowledge of insurance, as measured by how much specific insurance education the consumer has had, is negatively related with the consumer’s perception of service quality. Perhaps consumers more educated in insurance are in a better position to judge service quality than those who have had no formal insurance education.

At a later stage, Wells and Stafford (1997) employed both SERVQUAL and SERVPERF to measure service quality and relate overall quality perceptions to formal insurance education. They reported that regardless of the scale employed, a statistically significant relation between insurance education and quality ratings was evident. Overall mean scores for the educated respondents were significantly lower than those for uneducated respondents, although there was no significant difference in expectations for the educated and uneducated groups. In summary, their results indicated that, all other things being equal, consumers with specific insurance education rated their insurers' overall service quality lower than consumers who had not been trained in insurance.

After an extensive research in the insurance industry, Leste and Wanderley (1997) reported the following conclusions:

1. The use of SERVQUAL gave satisfactory results.

2. There is a group of consumers, which takes the dimensions of a segment, who are particularly interested in the help and care that they receive from insurers and in the insurers’ technical ability to provide information for the insurance products.

3. Customers usually do not possess sufficient information for the available products and terms of insurance policies.

4. Customers do not usually trust insurers and their agents and brokers.
5. A segment of customers are interested in the long-lasting relations that they can have with the insurers and agents and in the corporate image of their insurance company.

6. The insurance companies do not appear interested in improving and maintaining the various relations that support their operation.

7. According to customers the insurance companies are mainly interested in the time requirements of contracts and in short-term questions.

8. The insurance products are bought after external influences.

9. The gaps between the expected and actual results in quality improvement programs are due to the absence of a service-oriented culture in insurance companies that are not involved in the maintenance of satisfaction of their customers.

Stafford et al. (1998) used SERVQUAL with customers of four insurance companies who had been involved in car insurance claims to measure the dimensions of quality and the effect of these dimensions on overall quality perceptions as well as customer satisfaction which were used as dependent variables. Reliability was found to be the most critical parameter for both dependent variables. Assurance was significant for both variables while empathy was significant only for satisfaction. There was a negative relationship between tangibles and the two variables for one of the companies. They propose that the importance of reliability for both variables seems to strengthen the relationship between service quality and customer satisfaction and that reliability is so important for quality because it has duration. It is not possible to describe something or someone as reliable unless a relation with duration exists. On the other hand, one can immediately evaluate the remaining dimensions of quality that are related with the process of service delivery. It is, in short, possible for someone to be satisfied by the service that is received without being able to evaluate reliability. They finally conclude that, for car insurance, reliability is synonymous with quality and tangibles are not so important.

Westbrook and Peterson (1998) evaluated the effectiveness of SERVQUAL in a business to business selling environment, using data from a large insurance brokerage firm serving business accounts in North America. They examined the extent to which the SERVQUAL’s quality dimensions are reliable in a business to business environment.
in comparison to the retailing environment. They suggest that the underlying quality dimensions in such an environment conform to a large extent with the ten dimensions originally proposed by Parasuraman et al. (1985). Professional customers evaluate the quality of services in the same way as retail customers.

Mehta et al. (2002), using customer data from the insurance industry of Singapore, recognized the following six dimensions of service quality: Assurance, Personalized Financial Planning, Relationship with Agent, Tangibles, Corporate Image and Competence. These dimensions include many of the initial SERVQUAL items. Their main conclusions are that there is increasing evidence that expectations guide the customers’ assessment of the quality of services and managers cannot ignore this factor when deciding and designing quality programs in their companies.

Josep et al. (2003) used the performance-importance paradigm to measure the customers’ assessment of the quality of services delivered to them by insurance agents. They identified five factors of quality in insurance, i.e. claims, personal relationships, products/services, life insurance and agent/benefit. They found evidence that agents need to take measures to improve their customer perceived service quality as only claims and personal relations fall into the "keep up the good work" quadrant. On the other hand the amount of resources that they use to promote new products falls into the "possible overkill" quadrant, meaning that insurance agents may have to reconsider their promotional-advertising strategies.

Gayathri et al. (2005) used the SERVQUAL instrument to assess the levels of service quality and its dimensions among four leading insurers in India as well as the relationship of the average scores of individual dimensions with satisfaction of customers of the same insurers. As a result of their study the researchers identified that the service quality dimensions could be a basis for differentiation of the insurance players that could be developed into a Sustainable Competitive Advantage in the long run. They further conclude that non-price differentiation instruments have a better potential than price changes, because any reaction from the competitors to match non-price differentiation may require changes in the entire service strategy.


3.6. Customer Satisfaction

Despite extensive research on customer satisfaction, its antecedents, and consequences, no consensual definition of customer satisfaction has been developed yet. Various definitions are either fundamentally or partially inconsistent with one another even when these definitions have overlapping components. In general, customer satisfaction is viewed as a response, based on evaluations, and expressed some time during the purchase-consumption process.

Oliver (1997) addresses this issue by noting that "everyone knows what [satisfaction] is until asked to give a definition. Then it seems, nobody knows". Research on customer satisfaction mostly focuses on testing various conceptual models rather than on definitional issues (Giese and Cote, 2000) and, as a result, customer satisfaction lacks in definitional and methodological standardization (Peterson and Wilson, 1992).

Based on a literature review, Giese and Cote (2000) presented a summary of twenty one customer satisfaction definitions. Customer satisfaction is defined as an emotional response (Cadotte et al., 1987), a cognitive response (Churchill and Surprenant, 1982) or as comprised of both cognitive and affective dimensions (Westbrook and Reilly, 1983). However, more recent definitions concede an emotional response (e.g. Halstead et al., 1994; Spreng et al., 1996).

Further, customer satisfaction is defined either as transaction/purchase specific (Halstead et al., 1994) or as an attitude based on a holistic evaluation of the product/service performance (Fornell, 1992). Customer satisfaction is considered as a post-consumption (Mano and Oliver, 1993) or post-purchase (Fornell, 1992) or post-choice (Westbrook and Oliver, 1991) response or even shaped during consumption (Halstead et al., 1994).

Customer satisfaction is also defined either as an outcome or as a process (Yi, 1990). Vavra (1997) defines outcome satisfaction as “the end state resulting from the consumption experience”. The end state might be a positive perception of the reward-sacrifices ratio or an emotional response to the consumption and use experience or resulting from the comparison of rewards and sacrifices against anticipated consequences from consuming and use of the product or service. Vavra (1997) also gave an alternative definition of satisfaction, viewed as “a process emphasizing the percep-
tual, evaluative and psychological processes that contribute to satisfaction”. Evaluation of satisfaction is made during the delivery process.

However, the definition that “customer satisfaction is an emotional response to the use of a product or service; and it is also a complex human process, which involves cognitive and affective processes, as well as other psychological and physiological influences” (Oliver, 1981) is broad enough to be generally accepted.

### 3.6.1. Customer Satisfaction Models

The most widely used model of customer satisfaction is based on Oliver’s (1980) expectancy disconfirmation theory. Oliver (1980) suggests that customers purchase goods and services with pre-purchase “performance-specific expectations” based on their previous experience and used as reference points against which the product/service’s performance, once purchased and used, is compared.

When product/service performance matches expectations then confirmation takes place while disconfirmation occurs when a discrepancy exists between the actual performance and expectations. Negative disconfirmation occurs when performance is less than expected while positive disconfirmation occurs when performance is better than expected. Confirmation and positive disconfirmation cause satisfaction while negative disconfirmation causes dissatisfaction. Satisfaction is thus viewed as a function of pre-purchase expectations and the resulting confirmation/disconfirmation.

Apart from Oliver’s (1980) expectancy disconfirmation model, other models have also been introduced in the literature. Hom (2000) classifies these models into six broad categories:

- Perceived Performance Models
- Norms Models
- Multiple Process Models
- Attribution Models
- Affective models
- Equity Models
3.6.2. Measurement of Customer Satisfaction

One perspective in measurement of customer satisfaction includes the composition of attribute-specific and overall evaluation. The reason for choosing an overall evaluation is that customer satisfaction is considered one-dimensional. Researchers using attribute-specific measurement regard customer satisfaction as multidimensional. The interrelationship between attribute-specific and overall satisfaction is often not strictly additive, leaving theoretical and empirical insights into overall satisfaction as a unique characteristic. At the methodological level, there is a need to measure both constructs separately in order to ensure reasonable data validity (Meyer and Westerbarkey, 1996).

Most researchers assume that customer satisfaction is one-dimensional. That is, satisfaction and dissatisfaction are two poles on the same scale. It is also worthwhile considering that the two might be different constructs found through different attributes (Brandit, 1987; Mersha and Adilakha, 1992). Since both constructs are then considered to be unrelated, the level of satisfaction is independent of the level of dissatisfaction, allowing management to keep track of the essential satisfying factors and be able to recognize and control the dissatisfiers.

3.7. The Links between Service Quality and Customer Satisfaction.

Although service quality and customer satisfaction are dominating the marketing literature, it is common to find no clear distinctions between the two constructs. Sometimes the terms “service quality” and “customer satisfaction” are used interchangeably both in industry and in academia (Iacobucci et al., 1995). This confusion is largely a result of two factors (Figure 3.6.). The first factor is the, somewhat exclusive, use of the disconfirmation paradigm to conceptualize both service quality and customer satisfaction as functions of expectations and performance perceptions. The second factor is that the two constructs have similar consequences. Nguyen (1991) considers that service quality and customer satisfaction represent the same concept while Dabholkar (1993) suggests that service quality and customer satisfaction converge in time to represent the same thing: a kind of global attitude.
Further, the issue on whether customers are in a position to distinguish between the two constructs, is still unresolved (Bitner and Hubert, 1994; Saurina and Coenders, 2002). Iacobucci et al. (1995) suggest that the difference between service quality and customer satisfaction may only reflect managerial versus customers’ concerns; that is when service providers deliver high quality services customers are satisfied or not upon experiencing these services.

However, the position that service quality and customer satisfaction are conceptually distinct but closely related constructs (Shemwell et al., 1998) prevails in the literature. Service quality researchers tend to consider service quality as a more long-term and general evaluation as opposed to satisfaction which is a transaction specific assessment. Based on these grounds Parasuraman et al. (1988) proposed that the instances of satisfaction over a time period lead to a perception of general service quality. This argument gained support from other researchers such as Bitner (1990), who developed a transaction appraisal model in services and empirically supported the effect of satisfaction on service quality, and Bolton and Drew (1991b) who suggested that satisfaction leads to service quality.

On the contrary, customer satisfaction researchers propose that perceived service quality is an antecedent of customer satisfaction. For example, Cronin and Taylor (1992) reported that, in their analysis for the causal relationships between satisfaction, service quality, and purchasing intentions, the coefficients of the path:

\[ \text{service quality} \rightarrow \text{satisfaction} \rightarrow \text{purchasing intentions} \]

were all significant while the ones of the path:

\[ \text{satisfaction} \rightarrow \text{service quality} \rightarrow \text{purchasing intentions} \]

were not.
Parasuraman et al. (1994a) pointed out that conflicting arguments might result from the holistic focus of research on service quality contrary to satisfaction research which is mainly based on specific transactions. They proposed that service quality and customer satisfaction should be examined under both viewpoints.

The prevailing general conclusion is that when the term service quality is used to refer to a global, long-term attitude about a service provider, then customer satisfaction is generally recognized as an antecedent of service quality. However, where the term is used to refer to something rather more specific (quality of the delivered service or quality of the service encounter, for example), then there seems to be a strong case for seeing quality as an antecedent of satisfaction (Zeithaml, 1988). For the purposes of the current study, the focus is on the relatively specific assessment of the quality of service provided in the context of a service relationship, and this is seen as a determinant of overall satisfaction.

The particular dimensions of the impact of service quality on customer satisfaction have been examined by a number of individual studies. Empirical research provides evidence that service improvement creates increased customer satisfaction along particular processes or attributes (Rust et al., 1998) which in turn leads to increased overall satisfaction or perceived service quality (e.g. Kordupleski et al., 1993; Keiningham et al., 1994/1995; Rust et al., 1995). The various models linking perceived service quality to customer satisfaction can be classified in five basic categories (Figure 3.7.) with perceived service quality and expectations being the main antecedents of satisfaction.

Kristensen et al. (1999) propose that the relationship of perceived quality with customer satisfaction depends on product category and the process of satisfaction depends on price and other factors such as: a) the complexity of evaluation b) the objective quality of the product and c) how prestigious the product is with respect to the customer’s social status. These factors are included in the European Customer Satisfaction Index ECSI which links customer satisfaction with its determinants and its outcome, namely customer loyalty. In the ECSI model, perceived quality is divided in two components namely hardware, referring to the quality of the attributes of the
product/service and humanware referring to the human contact. These correspond to Grönroos’s (1984) technical and functional quality respectively.

**Figure 3.7. - Five models of customer satisfaction formation**

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Perceived Quality</th>
<th>Customer Satisfaction</th>
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<tr>
<td></td>
<td>Expectations</td>
<td></td>
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</table>


<table>
<thead>
<tr>
<th>Model 2</th>
<th>Perceived Quality</th>
<th>Customer Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expectations</td>
<td></td>
</tr>
</tbody>
</table>

Anderson and Sullivan, 1993

<table>
<thead>
<tr>
<th>Model 3</th>
<th>Perceived Quality</th>
<th>Customer Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expectations</td>
<td></td>
</tr>
</tbody>
</table>

Churchill and Suprenant, 1982; Oliver and DeSarbo, 1988; Tse and Wilton, 1988; Bearden and Teel, 1983; Oliver and Linda, 1981; Westbrook and Reilly, 1983

<table>
<thead>
<tr>
<th>Model 4</th>
<th>Perceived Quality</th>
<th>Customer Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Anderson and Sullivan, 1993; Churchill and Suprenant, 1982; Johnson and Fornell, 1991; Tse and Wilton, 1988; Oliver 1997

<table>
<thead>
<tr>
<th>Model 5</th>
<th>Expectations</th>
<th>Customer Satisfaction</th>
</tr>
</thead>
</table>

Oliver, 1980

Source: Kristensen et al., 1999

Overall, the causal relationships between service quality and customer satisfaction have been examined by a number of studies, in service settings around the world, but mainly at the level of aggregate constructs. The conclusions that the two constructs are distinct though interrelated and that service quality is an antecedent of customer satisfaction, when focusing on the assessment of service quality in the context of a service relationship, is prevailing in the literature. However, little is known regarding the relationships between the two constructs at the level of individual dimensions. This is a literature gap that this research attempts to narrow by reporting its findings from studying these links in a model of which the constituent variables are the individual dimensions of service quality, customer satisfaction and the individual dimensions of customer loyalty.
3.8. The Role of Price

Although price is widely used, in products and services, as a promotional vehicle its role in the service quality, customer satisfaction, and customer loyalty network is debated. Some researchers consider price as an antecedent of service quality and customer satisfaction. Others regard price merely as an extrinsic indication of service quality in the absence of other relative cues while some view price as a dependent variable of customer satisfaction and service quality in the sense that satisfied customers are willing to pay more when purchasing services (Schlesinger and Graf von der Shulenburg, 1995; Banham, 2000).

The term “price” is closely related to money. However, from the customer’s perspective price is much more than that. For the customer, price is a perception of what is sacrificed to obtain a product or service (Zeithaml, 1988) usually referred to as “perceived price”. Costs other than price are also included in the sacrifices that must be made to obtain the product.

Consumers rarely remember the objective prices of products or services but, instead, they encode prices in terms of perceived price that makes more sense to them (Bei and Chiao, 2001). For example, rather than referring to individual monetary prices, consumers refer to “cheap”, “expensive”, or “fairly priced” products and services. Therefore, perceived price is not equivalent to objective price (Zeithaml, 1987).

3.8.1. The Relation Between Price and Customer Satisfaction

According to Fornell (1992) and Lewis (1993) price, combined with service quality, is conceptually connected to customer satisfaction. However, the links between price and customer satisfaction have attracted much less attention than the links between service quality and satisfaction (Voss et al., 1998).

Fornell (1992) proposes that in order to examine the impact of price on customer satisfaction, price should be considered in the light of service quality. Zeithaml and Bitner (1996) indicate that price is an antecedent of customer satisfaction together with service quality, product quality, situation, and personal factors. Anderson et al. (1994) also emphasize price as an important factor of consumer satisfaction, because when-
ever consumers evaluate the value of an acquired service, they usually think of the price (e.g., Anderson and Sullivan 1993; Athanassopoulos 2000; Cronin et al., 2000).

Along similar lines, Cronin and Taylor (1992) propose that convenience, price and availability can improve the satisfaction of customers and influence their behaviour. Keaveney (1995) developed a customer switching behaviour model in which eight causal variables were included: price, inconvenience, core service failures, service encounter failures, competitive issues, ethical problems, and involuntary factors. Voss et al. (1998) developed a conceptual model for the formation of customer satisfaction which links satisfaction with perceptions of price and quality, shaped in three consequent stages: before, during, and after the sale.

Usually the lower the perceived price, the lower the perceived sacrifice is (Zeithaml 1988). Then, more satisfaction with the perceived price and overall transaction are created. On the other hand, it is also possible that consumers use the price as a clue. This implies that lower monetary or perceived price does not guarantee higher satisfaction.

3.8.2. The Relation Between Price and Perceived Quality

Price can also influence satisfaction through its impact on quality perceptions although this variable is usually not properly discussed in the measurement of service quality literature. Consumers avoid to directly referring to price in this respect (Zeithaml and Bitner, 1996). However, the price-service quality relationship has been investigated by a number of researchers but with contradictory results. Certain studies report that price is an indication of quality (Hanf and von Werebe, 1994) although less important when other indications such as brand name (Gardner, 1971) or even the shop’s image (Stafford and Enis, 1969) exist.

Other studies conclude that the relationship between price and perceived quality is poor (Friedman, 1967; Swan, 1974) or that quality perceptions are not linked with price (Anderson et al., 1994). In this respect, Zeithaml (1987) found no direct relationship between price and objective or perceived quality and hypothesized that product category factors, individual factors, and informational factors affect the use of price as a quality indicator. It is also reported that the relationship between price and perceived quality is non-linear (Peterson, 1970; Peterson and Jolibert, 1976) or varying to a large extent between individuals (Shapiro, 1973) or between products (Gardner, 1971).
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On the other hand, reports exist that price is among the most important attributes that customers connect with quality (Bonner and Nelson, 1985; Parasuraman et al., 1985) and that customers can use price to shape their expectations when they face uncertainty regarding performance (Rao and Monroe, 1988, 1989; Grewal, 1995). Oliver (1997) suggests that consumers usually judge price and service quality by the concept of "equity," and then generate their satisfaction or dissatisfaction level.

Scitovsky (1945) analyzed systematically the relationship between price and quality and divided markets into expert and laymen. In expert markets, buyers exercise a significant level of experience to judge the quality of products. So, prices increase with quality. Laymen markets are characterized by lack of information and an indication of quality is useful for consumers. Nevertheless, price is not considered as such. According to Hanf and von Wersebe (1994) retail markets do not function rationally regarding the link of price and quality. The associating factors between price and quality are above average only when the products they refer to allow consumers to learn about their quality with a reasonable research cost.

Zeithaml (1988) proposes that price is just one of the many extrinsic indicators of quality and that other indicators, such as the brand’s name or even packaging, may be more important, particularly in packaged products. She further considers that the indications for the existence of a generalised relationship between quality and price are not conclusive and proposes that research on quality would be better if it considered price as the only exogenous quality characteristic.

3.8.3. Conclusion on the Significance of Price

Overall, although the examination of price as a determinant of service quality has produced contradictory results (e.g. Hanf and von Wersebe, 1994; Friedman, 1967; Swan, 1974; Anderson et al., 1994; Bonner and Nelson, 1985; Parasuraman et al., 1985) its role as a determinant of customer satisfaction is well documented in the literature (Zeithaml and Bitner, 1996; Anderson and Sullivan 1993; Athanassopoulos 2000; Cronin et al., 2000). No doubt, reported conclusions on the effects of price on the links between service quality, customer satisfaction and customer loyalty, on evidence from an under-researched culture and an under-researched industry, would add to the literature.
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However, the circumstances regarding price considerations by customers in Greek insurance, which provides evidence for this research, are currently quite ambiguous. In the life sector, accounting for 49% of the industry in 2005 (http://www.eaee.gr), insurers tend to continuously introduce new differentiated products, to address competition (Tsoukatos, 2003). This, combined with the reported difficulty of establishing a fair price for insurance (Estelami, 2007), makes price comparisons by customers not possible in most cases. In motor liability insurance, accounting for 60% of the property and liability sector and 30% of the industry in 2005 (http://www.eaee.gr), cheap insurance is identified with bad insurance to the eyes of customers. In 2006 alone five cheap motor liability insurers were closed down by the authorities on insolvency issues leaving hundreds of thousands of unsettled claims. Hence, in the eyes of customers cheap is identified with unreliable in insurance and there is a considerable shift to reliable insurance, some times disregarding price.

On the basis of the above mentioned arguments, it was considered that evidence on price significance drawn from Greek insurance would not be credible, under the circumstances. Hence, it was decided to not include price in the analysis.

3.9. Consequences of Service Quality and Customer Satisfaction

As stated earlier, service quality and customer satisfaction are considered as the main drivers of customer loyalty. Through customer loyalty, service quality and customer satisfaction are bound to have an effect on customers’ behaviour, profitability and the general performance of companies. A short literature review will be presented about the consequences of service quality and customer satisfaction in this respect. Although it is very difficult to draw an absolute line between the consequences of the two constructs, as these are viewed interchangeably by many researchers, this review will be presented in two separate sections for the reader’s convenience: Consequences of Customer Satisfaction and Consequences of Service Quality.

3.9.1. Consequences of Customer Satisfaction

In both the marketing and financial services literature, satisfaction is argued to have an impact on customer loyalty (Bloemer et al., 2002) which in turn affects profitability and the economic performance of companies (Mittal and Kamakura, 2001; Chumpitaz and Paparoidamis, 2004).
Empirical findings have provided evidence that satisfaction is associated positively with customers' repurchase-intentions (behavioural loyalty) and positive word-of-mouth communications (attitudinal loyalty) (Zeithaml et al., 1996; Durvasula et al., 2004). This finding has important marketing implications as word-of-mouth has been found to have significant influence on customers' purchase decisions.

Many researchers have presented models connecting satisfaction to economic performance. Woodside et al. (1989) identified significant links between the overall satisfaction of hospital patients and their intention to choose the same hospital again and Nelson et al. (1992) extended the link to hospital profitability. Rust et al. (1995) argued about the effect of complaints handling systems on satisfaction and economic performance while Van der Wiele et al. (2002) provided evidence for the links between customer satisfaction and overall business performance. Lee and Hwan (2005) found that, in banking, from the customer’s perspective, customer satisfaction directly influences purchase intentions while, from the perspective of management, it significantly influences profitability.

Financial service suppliers, worldwide, have recognized that a persistent customer satisfaction program is a most effective method of retaining customers hence reducing the need for investments to attract new ones. The financial service provider’s image is related to the dimension of satisfaction often reported as "corporate quality" (Athanasopoulos, 2000). In retail banking, Hallowell (1996) confirmed the service-profit chain (Heskett et al., 1994) that hypothesises the conceptual path: satisfaction → loyalty → profitability. Other research in financial services suggests that customer satisfaction with contact personnel during service encounters is found to affect both overall satisfaction and loyalty (e.g. Jones and Sasser, 1995).

In life insurance, Taylor (2001) finds that both service quality and satisfaction are important determinants of behavioural outcomes while in retail banking, Lewis and Soureli (2006) come to the conclusion that loyalty is the outcome of a cognitive rather than an affective process and that the main antecedents of bank loyalty are perceived value, service quality, service attributes, satisfaction, image and trust: constructs that are inter-related and form a network of loyalty antecedents. Helgesen (2006) provides strong evidence that there is a significant positive link between customer satisfaction and loyalty. In addition, Helgesen (2006) confirms that the more loyal a customer is, the more profitable the customer is to the company although the relationships between
variables seem to be non-linear (increasingly downward sloping), and only valid beyond certain levels or thresholds.

The economic consequences of customer satisfaction are also documented at the industry level in Sweden (Fornell, 1992) and elsewhere (Anderson et al., 1994). Anderson and Sullivan (1993) reported that the repurchase intentions of customers in Sweden are strongly connected to their satisfaction from specific product categories while Anderson et al. (1994) argued that higher levels of satisfaction increase loyalty, decrease price elasticity, protect current market shares, decrease the cost of failures and the cost of attracting new customers and help companies to build a positive corporate image. These conclusions have led a number of major national economies to measure satisfaction at the industry level using nationwide surveys to estimate the impact of satisfaction on retention rates, word-of-mouth (WOM) and economic performance (Fornell, 1992).

In brief, the role of customer satisfaction as the main moderating variable in the path to customer loyalty and hence to economic performance has been proved theoretically and empirically and has become acceptable from managers worldwide. It is the responsibility of management to find ways of managing the marketing resources of the company to maximize customer satisfaction and create positive behavioural responses of their company’s customers that will, in turn, lead to positive economic results.

3.9.2. Consequences of Service Quality

Although some studies had already connected quality to customer retention (Steenkamp, 1989), profitability (Reichheld and Sasser, 1990), market share (Buzzell and Gale, 1987), profits (Phillips et al., 1983) and overall economic performance (Ford Motor Company, 1990; Koska, 1990), until the early 90s the main economic variable connected with service quality was cost (Bohan and Horney, 1991; Carr, 1992). Roughly at that time, companies began to be concerned with quality’s impact on profits and the general economic performance of an organisation (Aaker and Jacobson, 1994; Greising, 1994; Rust et al., 1995).

The economic consequences of service quality have since been the subject of a considerable number of studies reported in the marketing literature. Today it is widely accepted that services of excellence result in more repeat sales and market share improvement and service quality is considered as one of the most effective yet most diff-
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Difficult, means of creating competitive advantage and improving business performance (Lewis, 1993). It is evident that the relationship between service quality, profits and economic performance is not always clear and simple (Greising, 1994) and although there are powerful conceptual arguments that the links connecting service quality, loyalty, customer retention and business performance really exist (Rust and Zahorik, 1993; Anderson and Fornell, 1994; Thorpe, 1994), there is considerable debate on their nature (Greising, 1994).

Service quality improvement is considered to increase favourable and decrease unfavourable behavioural intentions of customers by creating customer-provider bonds that lead customers to praise the company, prefer it over others, increase the volume of their purchases or knowingly pay more for its products and/or services (Zeithaml et al., 1996). Martin Feinstein, president and CEO of the Farmers Insurance established in Los Angeles, explains that according to independent studies a margin of between 15% and 18% exists which customers would accept to pay more if they really feel that insurance services of exceptional quality are offered to them (Banham, 2000). Rust et al. (1995) verified the links between product quality, service quality and market share while Anderson and Sullivan (1993) investigated the impact of service quality on repurchasing intentions and Chumpitaz and Paparoidamis (2004) its influence on marketing performance through customer satisfaction.

Schlesinger and Graf von der Shulenburg (1995) proposed that service quality influences the customers’ decisions to choose insurers and affect the price they are prepared to pay for a policy while Daskalopoulou and Petrou (2005) have found that service quality influences the performance of retail stores. However, the impact of quality investments on profits cannot always be directly assessed because a) it usually is long-term; b) many other variables (price, distribution, competition, effectiveness, image and publicity) influence profits, and c) simply spending on quality does not automatically lead to profits because the strategy and functionality of the investment are also important (Zeithaml et al., 1996).

Rust et al. (1995) verified the links between product quality, service quality and market share while Anderson and Sullivan (1993) investigated the impact of service quality on repurchasing intentions and Chumpitaz and Paparoidamis (2004) its influence on marketing performance through customer satisfaction. Rust et al. (1995) proposed a conceptual framework which they called return on quality (ROQ) approach, to ex-
amine the dependence of profits on service quality improvement. Using the ROQ approach, they proved that the impact of service quality on the behaviour of customers leads to improved profitability and economic performance in general. Zeithaml et al. (1996) presented a conceptual model (Figure 3.8.) through which they explained the links between service quality, behavioural intentions, behaviour and financial consequences to the company. The model first proposes that service quality and behavioural intentions are related and then that the quality of services is a determinant of whether a customer finally remains with the company or switches over. Third, the model presents the links between the behaviour of customers and the financial consequences to the company.

On the other hand, certain studies indicated negative or no relationship between service quality and the company’s economic performance. However, these were not focused exclusively on service quality but rather on TQM in general (e.g. Easton, 1993; Bounds et al., 1994; Reger et al., 1994; Sterman et al., 1997).

**Figure 3.8. - The Behavioural and Financial Consequences of Service Quality**

<table>
<thead>
<tr>
<th>Service Quality</th>
<th>Behavioural Intentions</th>
<th>BEHAVIOUR</th>
<th>FINANCIAL CONSEQUENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superior</td>
<td>Favourable</td>
<td>Remain</td>
<td>+S Ongoing Revenue</td>
</tr>
<tr>
<td>Inferior</td>
<td>Unfavourable</td>
<td>Defect</td>
<td>-S Decreased Spending</td>
</tr>
</tbody>
</table>

Source: Zeithaml et al., 1996

**3.9.3. Conclusion on the Consequences of Service Quality and Customer Satisfaction**

While the prevailing idea in the literature is that customer satisfaction is the immediate antecedent of customer loyalty (e.g. Fornell, 1992; Sullivan, 1993; Anderson et al., 1994) and that service quality has an effect on the latter through its effect on customer
satisfaction (Rust and Zahorik, 1993; Anderson and Fornell, 1994; Thorpe, 1994), there remains considerable debate on the nature of the relationship (Greising, 1994). Then, through customer loyalty, service quality and customer satisfaction are linked with the overall performance and profits of organizations.

However, a literature gap on the effects of service quality and customer satisfaction, specifically on the attitudinal and the behavioural dimensions of customer loyalty still exists. This study will contribute towards narrowing this gap by examining these effects, on data drawn from Greek insurance, in a model reflecting the links between service quality, customer satisfaction and customer loyalty at the level of individual dimensions.

3.10. Culture

Most satisfaction research has used U.S. subjects to develop and test satisfaction theory (Spreng and Chiou, 2002). Measures of quality and satisfaction may be therefore less applicable and less meaningful in other countries, thereby leading to less-than-optimal results. For the most part, the U.S. centric notion of a linear relationship between service quality and customer satisfaction has remained unchallenged. Yet, prior research on cultures indicates that customer behaviour is not necessarily constant across countries. After an insight at the definition of culture, the links between culture and service quality perceptions and between culture and customer satisfaction will be examined followed by an introduction on Hofstede’s (1980) conceptualization of culture. The section concludes with determining Greece’s standing regarding Hofstede’s cultural dimensions followed by a short discussion on the relation of culture with nation.

3.10.1. Definition of Culture

The term culture originates from the Latin *colo, -ere*, meaning "to cultivate". The modern definition of culture, as socially patterned human thought and behaviour, was originally proposed by the nineteenth-century British anthropologist, Edward Tylor (1974) (first published in 1871) who defined culture as: "*Culture or civilization, taken in its wide ethnographic sense, is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society*."
This definition has been considerably extended since Tylor’s (1974) era. Some researchers have attempted to create exhaustive universal lists of the content of culture, usually as guides for further research. For example, Kroeber and Kluckhohn (1952), published a list of 160 such definitions classified into eight broad categories (Table 3.3.) indicating the diversity of the concept.

### Table 3.3. Diverse Definitions of Culture

<table>
<thead>
<tr>
<th>Definition</th>
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<tbody>
<tr>
<td>Culture consists of everything on a list of topics, or categories, such as social organization, religion, or economy</td>
</tr>
<tr>
<td>Culture is social heritage, or tradition, that is passed on to future generations</td>
</tr>
<tr>
<td>Culture is shared, learned human behaviour, a way of life</td>
</tr>
<tr>
<td>Culture is ideals, values, or rules for living</td>
</tr>
<tr>
<td>Culture is the way humans solve problems of adapting to the environment or living together</td>
</tr>
<tr>
<td>Culture is a complex of ideas, or learned habits, that inhibit impulses and distinguish people from animals</td>
</tr>
<tr>
<td>Culture consists of patterned and interrelated ideas, symbols, or behaviours</td>
</tr>
<tr>
<td>Culture is based on arbitrarily assigned meanings that are shared by a society</td>
</tr>
</tbody>
</table>

Hofstede (1980) defined culture as “the collective programming of the mind which distinguishes the members of one human group from another” and further comments that “culture in this sense, includes systems of values; and values are among the building blocks of culture”. Culture, according to Hofstede (1980) is not only reserved for ethnic societies but it can be equally applied to other human groups sharing some characteristics. Hofstede (1980) considers language, which is both the vehicle and the object of many cross-cultural studies, as the most recognizable characteristic of culture.

Hofstede and Hofstede (2005) stressed that culture is always a collective phenomenon because “it is at least partly shared with people who live or lived in the same social environment”. Further, Hofstede and Hofstede (2005) suggested that culture is learned and should be distinguished from human nature which is inherited, and personality, a function of human nature and culture, which is inherited and learned (Figure 3.9.)
Murphy (1986) defined culture as “the total body of tradition borne by a society and transmitted from generation to generation. It refers to the norms, values, and standards by which people act, and it includes the ways distinctive in each society of ordering the world and rendering it intelligible. Culture is...a set of mechanisms for survival, but it provides us also with a definition of reality. It is the matrix into which we are born; it is the anvil upon which our persons and destinies are forged”.

In UNESCO’s (2002) Universal Declaration on Cultural Diversity, culture is defined as “the set of distinctive spiritual, material, intellectual and emotional features of society or a social group, that encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions and beliefs”. Further, the Universal Declaration on Cultural Diversity states that “Culture takes diverse forms across time and space. This diversity is embodied in the uniqueness and plurality of the identities of the groups and societies making up humankind. As a source of exchange, innovation, and creativity, cultural diversity is as necessary for humankind as biodiversity is for nature. In this sense, it is the common heritage of humanity and should be recognized and affirmed for the benefit of present and future generations”.

Source: Hofstede and Hofstede, 2005
The UK Department of Culture Media and Sport (http://www.culture.gov.uk/) considers culture as having a material and a value dimension. The material dimension includes arts, craft, literature, built heritage, sports, parks, wildlife habitats, tourism etc. The value dimension “is about relationships - between individuals and groups, shared memories, experience and identity, diverse cultural, faith and historic backgrounds, social standards, values and norms, what we consider valuable to pass on to future generations”.

It is evident that culture is a complex multidimensional concept that is extremely difficult to define and the number of different definitions presented above reflects this reality. However, culture is a driver of people’s behaviour and as such is bound to influence the behaviour of customers. In this respect, culture is important to service management as a determinant of customer behaviour (Roth, 1995) and a fundamental aspect of marketing phenomena, with increasing relevance in the global market (Penaloza and Gilly, 1992). The impact of culture on the antecedents of customer behaviour, especially service quality and customer satisfaction, will be discussed next.

3.10.2. Linking Culture to Service Quality and Customer Satisfaction

The distinct characteristics of services pose formidable obstacles for globalization. Managers must understand which parts of service delivery are subject to cultural influences as contrasted with those that remain stable across cultures (Espinoza, 1999) in order to be able to determine when "etic" approaches are more appropriate than “emic” approaches or vice versa (Douglas and Craig, 1983). The terms “etic” and “emic” were introduced by the linguist anthropologist Kenneth Pike (1954) as two different perspectives of studying a specific cultural system. In service delivery “emic” approaches are designed to fit one particular culture while “etic” strategies are designed to apply to all cultures (Espinoza, 1999). As a result of this necessity the effect of culture on quality expectations and perceptions as well as on customers’ behaviour has been studied by a number of researchers.

Malhotra et al. (1994) made a theoretical comparison of the determinants of service quality between developed and developing countries. They argued that environmental differences between the two groups of countries can have varying influences on service quality determinants. Malhotra et al. (1994) put forward several propositions and
developed a number of hypotheses linking the ten dimensions of service quality, initially proposed in 1985 by Parasuraman et al., to economic and socio-cultural factors. They suggested that the various dimensions of service quality should be emphasized differently in developed and developing countries. At a later stage Malhotra et al. (2005), based on banking services data from USA, India, and the Philippines, confirmed all but one of the hypotheses set in 1994 by Malhotra et al. about the perceptions of service quality in developed and developing countries. Malhotra et al. (2005) drew the following conclusions:

<table>
<thead>
<tr>
<th>Developed Countries</th>
<th>Developing Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Augmented services deserve more emphasis</td>
<td>Core aspects of the service should be emphasized</td>
</tr>
<tr>
<td>Emphasis on technology, &quot;breakthrough&quot; service, timely response, continuous improvement, and proactive effort crucial in establishing reliability and responsiveness</td>
<td>Emphasis on &quot;merely good&quot; service, and periodic improvement with a strong recovery effort</td>
</tr>
<tr>
<td>Substantive response delivered in a timely fashion</td>
<td>Substantive response sufficient</td>
</tr>
<tr>
<td>Customers concerned about privacy issues</td>
<td>Customers less concerned about privacy</td>
</tr>
<tr>
<td>Project competence down to individual employees</td>
<td>Project competence as being centralized in the organization</td>
</tr>
<tr>
<td>Price less important as a major competitive tool</td>
<td>Pricing strategies should make generous use of financial incentives</td>
</tr>
</tbody>
</table>

Winsted (1997) examined how consumers in the United States and Japan evaluate service encounters. She developed behavioural-based service encounter dimensions for the two countries and identified significant cross-cultural differences on these dimensions. The dimensions identified in the United States are civility, personalization, remembering, conversation, congeniality, delivery, and authenticity. Those identified in Japan are civility, personalization, conversation, concern, and formality. She also showed that these dimensions explain a significant portion of customers’ overall satisfaction.

Espinoza (1999), based on data from Peru and Quebec, studied the influence of Hofstede’s (1980) individualism/collectivism dimension and orientation towards time; monochronic/polychronic time (Hall, 1959), on perceived service quality. In monochronic cultures schedules are respected because “time is money” and people perform “one task at a time”. In polychronic societies, on the other hand, time is something
like a general guideline: people do what seems to be more appropriate for the moment, and tend to do several things simultaneously (Hall, 1976; Usunier, 1991). Responsiveness was most important for the individualistic and monochronic Quebecers while group-oriented and polychronic Peruvians mostly valued tangibles.

Kotler et al. (2003) proposed a model identifying that consumer behaviour can be influenced by four factors: (1) cultural factor, (2) social factor (e.g. reference group, family, roles and status), (3) personal factor (e.g. age, life-cycle stage, occupation, lifestyle, and personality), and (4) psychological factor (motivation, perception, beliefs, and attitudes). The authors contend that cultural factors exert the broadest and deepest influence on consumer behaviour.

However, much of the research on culture, and its impact on the customers’ quality expectations, perceptions and behavioural responses, is based on Hofstede’s (1980, 1991) cultural framework.

3.10.3. Hofstede’s Conceptualization of Culture

Based on the results of an extensive multinational study, Hofstede (1980) recognised four dimensions of culture **Power Distance, Uncertainty Avoidance, Individualism/Collectivism** and **Masculinity/Femininity**. A fifth dimension, **Long Term Orientation**, was later added after a study in East-Asian societies was conducted (Hofstede and Bond, 1988).

**Power distance** indicates the extent to which a society accepts and expects the fact that power is distributed unequally (Hofstede, 1980, 1991). According to Hofstede and Bond (1988) all societies are unequal but some are more unequal than others. Power distance reflects the human inequality in areas such as social status, wealth, power and the law. The persons with high power distance show confidence for the centralization and formalization of power and tolerance for the lack of autonomy, which cultivates inequalities in power and wealth (Hofstede, 1980). They tolerate the acceptance of hierarchy, power, stifling control, vertical from above communication, even discriminations on age, sex, educational level, race, and profession. In general, more (less) demonstration of power works well between those who have high (low) power distance, because of their familiarization with and tolerance for the inequalities in power.

**Uncertainty avoidance** “indicates the extent to which a society feels threatened by uncertain and ambiguous situations” (Hofstede, 1980). It reflects the level of toler-
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ance of uncertainty that illustrates the way people confront uncertainties and ambiguities of everyday life. Cultures that score high on uncertainty avoidance attempt to minimize the possibility of such situations by adhering to strict laws and measures. People with low uncertainty avoidance tend to accept uncertainty without great displeasure, they easily accept risk, and show tolerance for opinions and behaviours different from theirs. Further, they do not need precise and specific rules such as, for example, job descriptions. People with high uncertainty avoidance have a strong need to control the environment, the facts, and situations.

Individualism/collectivism closely resembles that of Hall’s (1976) context paradigm and lies along a continuum (of which individualism and collectivism are the end points) that reflects people’s attitude towards the group. Loose ties between people characterize individualist (and low-context) cultures, whereas strong, cohesive ties between group members characterize collectivist (and high-context cultures), Bolton and Myers (2003) propose that in collectivist cultures relationships between service providers and their customers are stronger, more intimate, thus more loyal than such relationships in individualist cultures. Inherent to individualist cultures is the notion of self-responsibility. Individualistic people give emphasis on labour specialisation, individual compensations, competitive environment, and the individual and family independence.

The continuum of masculinity/femininity expresses the extent to which the roles of the two sexes are distinct in a society. Men are aggressive, tough and focused on material success while women are supposed to be more moderate, tender and more interested in the quality of life (Hofstede, 1980, 1991). Masculine societies give emphasis on assertiveness and feminine societies on feminine nurturance. Masculine people put emphasis on the differentiation of the roles of genders, effectiveness, ambition, and independence while feminine people appreciate fluid roles between the sexes, quality of life, service, and interdependence. Masculinity/femininity is related to the degree of economic development in a country. In less industrialized countries social relations, including those at work, have intrinsic value in themselves and work satisfaction derives, to some extent, from these relations (Gray and Marshall, 1998).

The fifth dimension Long-Term Orientation “stands for the fostering of virtues oriented toward future rewards - in particular, perseverance, and thrift. Its opposite pole, Short-Term Orientation stands for the fostering of virtues related to the past and
present - in particular, respect for tradition, preservation of “face”, and fulfilling social obligations” (Hofstede and Hofstede, 2005). Long-term oriented people put emphasis on synthetic thinking and mostly value learning, honesty, adaptiveness, accountability and self discipline. On the other hand, short-term oriented people are analytical thinkers and mainly value freedom, rights, achievement, and thinking for oneself.

As a result of his initial and subsequent studies, Geert Hofstede provided cultural dimensions scores for 69 countries and territories around the world (http://www.geert-hofstede.com/hofstede_dimensions.php). Based on these scores, Kogut and Singh (1988) introduced the Composite Cultural Distance Index which measures the cultural distance between any two countries and territories in Hofstede’s list. The index is calculated as follows:

\[ CD_j = \frac{4}{\sum_{i=1}^{4} \left( (I_{ij} - I_{ig})^2 / V_i \right) / 4}, \]

where \( I_{ij} \) stands for the index for the \( i \)th cultural dimension and \( j \)th country, \( V_i \) is the variance of the index of the \( i \)th dimension, \( g \) indicates the country of reference and \( CD_j \) is the overall cultural difference of the \( j \)th country from the country of reference.

3.10.3.1. Studies Based on Hofstede’s Work

Based on Hofstede’s (1980) theory, Donthu and Yoo (1998) studied the effect of customers’ cultural orientation on their service quality expectations. They used Hofstede's dimensions of culture and the dimensions of service quality from the SERVQUAL scale to develop and test hypotheses relating the five dimensions of culture with both a measure of the overall service quality expectation and the five service quality dimensions. However, their study focused on only 6 out of 25 possible relationships between the five cultural dimensions and the five quality dimensions. Donthu and Yoo (1998) showed that customers with high scores in power distance, uncertainty avoidance, and individualism have higher service quality expectations than customers with low respective scores. Regarding individual service dimensions, customers with high power distance score have lower expectations of responsiveness and reliability than low power distance customers, while high uncertainty avoidance customers place more importance on tangibles than low uncertainty avoidance customers. Finally, individualistic customers have higher expectations of empathy and assurance than collectivistic customers.

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However, a crucial limitation of their study, similar to that of the studies of Winsted (1997) and Mattila (1999) is that Donthu and Yoo (1998) did not consider contingency variables. When they used the power distance dimension, their study did not make a distinction between powerful and weak customers; when they used the masculinity dimension their study did not make a distinction between services provided by male or female employees; and when they used the uncertainty avoidance dimension they did not make any distinction between frequent and infrequent service situations.

Mattila (1999) examined the impact of culture on customer evaluation of complex services. Her goal was to understand the tradeoffs that Western and Asian customers are willing to make between personalized service and pleasant physical environment in a context of luxury hotels. She provided a framework that adds to Winsted's (1997) study by explaining the cultural differences between Western and Asian customers in terms of individualism versus collectivism, power distance (Hofstede 1980, 1991), and high- versus low-context communication (Hall, 1984). However, she did not control for these dimensions when she split her sample into three categories: Westerners, Asian Chinese, and Asian Indian. She also related these three groups of customers to only a reduced set of service dimensions (physical environment, personal service component, and hedonic dimension). Her findings suggest that customers with a Western cultural background are more likely to rely on the tangible cues from the physical environment than would their Asian counterparts and that the hedonic dimension of the consumption experience might be more important for Western consumers than for Asians.

Furrer et al. (2000) suggested that perceptions of service quality vary across cultural groups, as defined by each culture's position on Hofstede's dimensions. They explicitly mapped the relationship between service quality perceptions and cultural dimension positions. They showed that the importance of SERVQUAL dimensions is correlated with Hofstede's cultural dimensions. They proved the existence of significant positive correlation between power distance tangibles and assurance, and significant negative correlation between power distance and empathy, responsiveness and reliability; significant positive correlation between individualism and responsiveness, reliability, tangibles and empathy and significant positive correlations between uncertainty avoidance and responsiveness, assurance, empathy and reliability and significant negative correlation between uncertainty avoidance and tangibles.
They computed a Cultural Service Quality Index that could be used to segment international service markets and allocate resources across segments. Furrer et al. (2000) examined the effect of Hofstede’s dimensions on quality dimensions at the individual level rather than the national. They developed a special questionnaire which they used to measure the cultural characteristics of each individual in their sample and form groups of individuals who shared similar characteristics irrespectively of their national identity. This approach was also used by Sigala and Sakellaridis (2004) who established the link between cultural identity and quality perceptions in a web site setting in Greece.

Straughan and Albers-Miller (2001) used Hofstede’s (1980) cultural framework as the foundation for an investigation of loyalty to domestic retailers in a multi-country survey. They investigated the effect of individualism and uncertainty avoidance in conjunction with individual demographic characteristics (age and sex) and the country’s ratio of imports to GDP. Individualism was found to be negatively correlated with loyalty to domestic retailers while uncertainty avoidance was positively related to loyalty to domestic retailers. The ratio of foreign imports to GDP was negatively correlated to loyalty to domestic retailers, and men exhibited greater loyalty to domestic retailers than women. Age was not a significant predictor.

Malai and Speece (2005) examined how cultural effects can be integrated into the relationship between customer value and customer loyalty using the individualism-collectivism dimension (Hofstede, 1980) for illustration. They proposed that culture could influence customer perceptions of service quality and brand name. Moreover, culture could also moderate the relationships between service quality, brand name, and loyalty. Results from a survey of 611 airline passengers across three Asian and three Western nationalities indicated that this way of thinking about culture's impact on marketing models is plausible.

Eng and Kim (2006) examined the impact of Confucian culture on e-customer loyalty in South Korea, proposing a conceptual model for empirical analysis by drawing on insights from Hofstede's cultural dimensions and previous studies on e-customer loyalty in European contexts. They showed that high power distance in Confucian culture is positively associated with affiliation. However, this high power distance is moderated by marketing activities that lead to lock-in. This indicates the profound influence.
of collectivism in Confucian culture and emphasises the importance of referral and community participation in increasing stickiness and hence loyal e-customers.

Shih (2006) examined how national culture (Hofstede, 1980) and nationality relate to service quality and customer satisfaction evaluations among leisure guests from USA, Germany, Japan and Taiwan. Overall service quality was found to be weakly related to power distance and nationality. When nationality was removed overall service quality was found to be related to individualism. On the other hand only nationality was found to be a significant predictor of customer satisfaction. However, when the nationality variable was removed, Confucian dynamism was a significant predictor of overall customer satisfaction. Customers from Western countries tended to have higher scores on all five dimensions of service quality.

In summary, although the effect of culture on both service quality and customer satisfaction seems self-evident, the literature gap on the effects of Hofstede’s (1980, 1991) cultural dimensions on service quality dimensions (Parasuraman, 1988) and customer satisfaction is still far from closed. This study introduces a new perspective under which these relationships are examined by associating the cultural characteristics of customers with the importance of service quality dimensions and customer satisfaction. In this respect, this study contributes to the existing knowledge and narrows the aforementioned literature gap.

### 3.10.3.2. The Cultural Profile of the Greek Society

As is the case for the large majority of the predominantly Orthodox and/or Catholic countries, Greece has as its highest ranking dimension uncertainty avoidance (www.geert-hofstede.com/hofstede_greece.shtml), being in fact on top of the relevant list with a score of 112. Compared to European societies, on average, Greece presents a significantly lower score for individualism (35 against 63), a moderately higher score for masculinity (57 against 48.5) and considerably higher scores for power distance and uncertainty avoidance (60 against 45 and 112 against 68.5 respectively). Based on these scores, Greek society can be described as: a) accepting (more than the European societies on average) that power is and must be distributed unequally (Hofstede, 1980), b) being the second least individualistic society in Europe (with only the Portuguese society presenting a lower score), c) experiencing a higher degree of gender differentiation and male domination than the European societies on average.
and d) being the society with the lowest tolerance for uncertainty and ambiguity than any other society (at least among the 56 Hofstede countries and regions) which makes the Greek society highly regulated due to the continuous production of rules, regulations and laws to reduce uncertainty.

### 3.10.4. Culture vs. Nation

Most of the management studies on culture identify culture with nation or ethnicity (e.g. Laroche et al., 2004; Lorenzoni and Lewis, 2004). However, Farley and Lehmann (1994) suggest that “cultural factors are only loosely related to the nation state”. Further, they propose that the identification of culture with nation may lead to systematic errors in within-nation studies. McSweeney (2002) challenges Hofstede’s conceptualization of national culture as implicit; core; systematically causal; territorially unique; and shared. In addition, a number of researchers disassociate culture from nation in examining the effects of culture on service quality/customer satisfaction (Donthu and Yoo, 1998; Furrer et al., 2000).

### 3.10.5. Measuring Culture

Although culture refers to society, the conclusions of Hofstede (1980, 1991) on the dimensions of culture and the subsequent indexing of societies, world wide, on the basis of these dimensions (http://www.geert-hofstede.com/hofstede_dimensions.php) were drawn from examining values and relations in the work-place alone. Further, the instruments that Hofstede (1980) proposed for the determination of cultural characteristics in surveys also refer to relations and values associated with the work environment.

However, other researchers have proposed research instruments for the measurement of the cultural characteristics of individuals that are based on values and relations in the wider social environment. (For a comprehensive list of research instruments for measuring culture see Taras (2006)).

Following this line of thinking, while abiding by Hofstede’s typology on culture (Hofstede, 1980, 1991), I consider cultural dimensions at the level of individuals rather than employing the aggregate cultural scores that are available for Greece. In this study, the instrument used for measuring the cultural characteristics of individuals is the one designed by Furrer et al. (2000) which already has been used in a Greek service setting by Sigala and Sakellaridis (2004). In measuring the cultural profile of
individuals the study uncovers an interesting divergence from the cultural profile drawn for Greece by Hofstede’s scores (http://www.geert-hofstede.com/).

3.10.6. Summary of the Literature Gaps to which this Research Contributes

This section summarizes the gaps identified in the literature, presented in the preceding sections of this chapter that this study will attempt to address.

Overall, the idea that the causal relations between service quality, customer satisfaction and customer loyalty is best described by the sequence:

‘service quality’→’customer satisfaction’→’customer loyalty’

is prevailing in the literature (e.g. Zeithaml, 1988; Iacobucci et al., 1995; Rust et al., 1995; Zeithaml et al., 1996; Bloemer et al., 2002; Chumpitaz and Paparoidamis, 2004). However, these relationships have mostly been examined at the level of aggregate constructs (e.g. Cronin and Taylor, 1992; Rust and Zahorik, 1993; Anderson and Fornell, 1994; Thorpe, 1994; Chumpitaz and Paparoidamis, 2004). Hence, the knowledge on the relationships between individual dimensions of the same or different constructs is still limited. Little is known, for instance, of the effects of individual dimensions of service quality on customer satisfaction and of the effects of the latter to individual dimensions of customer loyalty. Further, not much is known about the causal relations between the attitudinal and the behavioural dimensions of loyalty. This research examines these relationships by introducing and studying a model that, drawing evidence from Greek insurance, reflects the links between its constituent constructs (service quality, customer satisfaction, customer loyalty) at the level of individual dimensions. By reporting the findings of this examination this study contributes towards narrowing the aforementioned literature gaps.

With respect to the applicability and replicability of service quality measurement scales across cultures and service settings, the debate is still open. This research contributes to the debate by reporting the findings from examining the reliability, validity and dimensionality, of a customized SERVQUAL scale on evidence from Greek insurance, an under-researched industry in an under-researched culture.

The literature provides ample evidence that culture influences human life through shaping values, beliefs, and attitudes (e.g. Hofstede, 1980; Murphy, 1986; UNESCO,
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2002). As such culture is bound to have an effect on customers’ perceptions of service quality, customer satisfaction, and through them to loyalty. However, much remains to be learned about the relationships between Hofstede’s (1980, 1991) cultural dimensions and: a) the dimensions of service quality (Parasuraman, 1988), b) customer satisfaction. This study contributes towards narrowing this gap by examining these links under a new perspective that relates the cultural characteristics of customers (Hofstede’s (1980, 1991) to the importance of service quality dimensions to them (Parasuraman, 1988) and their satisfaction.

Although abiding by Hofstede’s (1980, 1991) typology of culture, this research follows the line of thinking that culture is not necessarily identified with nation (Farley and Lehmann, 1994). Hence, it considers cultural dimensions at the level of individuals rather than employing aggregate national cultural scores. In measuring the culture of individuals this research uncovers an interesting divergence from the cultural profile drawn for Greece on the basis of Hofstede’s scores (http://www.geert-hofstede.com/). In this respect the study provides evidence that contributes to the existing literature on this subject and has the potential to initiate a whole stream of further research.
4. METHODOLOGY

4.1. Overview

This chapter starts with a discussion of the key methodological concepts of this research: objectives, rationale and its philosophical position. A discussion of research methodology and execution then follows and finally the chapter concludes with a brief summary of pertinent issues regarding this research.

4.2. Research Objectives and Rationale

This research addresses the gaps in the literature on: a) the cross-cultural/cross-sectional applicability of the SERVQUAL metric, b) the relationships between service quality, customer satisfaction and customer loyalty at the level of dimensions and c) the role of culture in these interactions. The rationale for these objectives is presented in the following paragraphs.

SERVQUAL Applicability

SERVQUAL has been subjected to criticism regarding its applicability across cultures and industries. The debate is wide open, although customized SERVQUAL metrics have been extensively used in a variety of service settings around the world (e.g. Carman, 1990; Allred and Addams, 2000; O’Neill and Charters, 2000; Brysland and Curry, 2001; Theodorakis et al., 2001; Santos, 2002; Wang et al., 2003; Sigala, 2004; Ugboma et al., 2004; Tahir and Wan Ismail, 2005) and the scale remains the most preferred by academics and managers (Wisniewski, 2001; Brady et al., 2002). This research adds to the literature by examining the reliability, validity and dimensionality of a customized SERVQUAL scale in Greek insurance.

Relationships between Service Quality, Customer Satisfaction and Customer Loyalty

The literature review established that causality of the relationships between service quality, customer satisfaction and customer loyalty is best described by the sequence ‘service quality’ → ‘customer satisfaction’ → ‘customer loyalty’ (e.g. Zeithaml, 1988; Bloemer et al., 2002). However, the existing knowledge about the relationships between individual dimensions of the same or different constructs is still limited, as the interconnections between variables are mostly examined at the level of aggregate constructs (e.g. Cronin and Taylor, 1992; Chumpitaz and Paparoidamis, 2004). This re-
search studies the relationships at the level of dimensions and produces additional knowledge that contributes towards closing the aforementioned literature gaps.

**The Role of Culture**

The literature provides evidence that culture influences human life through shaping values, beliefs, and attitudes (e.g. Hofstede, 1980; Murphy, 1986; UNESCO, 2002). It is, therefore, bound to affect service expectations and perceptions, customer satisfaction, and loyalty. However, much remains to be learned about the relationships between the individual dimensions of culture and the dimensions of service quality and customer satisfaction. This research contributes towards increasing our understanding by studying these links under a new perspective that relates the cultural characteristics of individual customers (Hofstede, 1980, 1991) to the importance of service quality dimensions (Parasuraman et al., 1988) to them and their satisfaction.

### 4.3. Philosophical Position of this Research

This research is epistemologically positioned between positivism and relativism. Positivism assumes that “the social world exists externally and that its properties should be measured through objective methods, rather than being inferred subjectively through sensation, reflection or intuition” (Easterby-Smith et al., 2002). Positivist research operates under two basic assumptions: an ontological assumption that reality is external and objective, and an epistemological assumption, that knowledge is only of significance if it is based on observations of this external reality. This philosophical position implies that: the researcher is not involved with what is being observed, the choice of research is determined by objective criteria, research is designed to identify causal explanations in human social behaviours and proceeds through formulating and testing hypotheses and deduction, concepts are operationalized in a way that can be measured quantitatively, inferences are made for wider populations by selecting samples of sufficient size and human behaviour is identified by cross-sectional analysis (Easterby-Smith et al., 2002; Saunders et al., 2007).

Relativism shares with positivism the assumption that reality exists externally and independently of the researcher and that the researcher can merely identify this pre-existing reality (Easterby-Smith et al., 2002). However, relativism makes the additional assumption that different researchers may have different viewpoints and that “what counts for the truth can vary from place to place and from time to time”
(Collins, 1983). A recent variant of relativism is “critical realism” which recognizes social conditions as having real consequences but also recognizes that concepts are human constructions (Easterby-Smith et al., 2002).

This research justifies its positioning between positivism and relativism in that it is designed to identify pre-existing social phenomena and behaviours while acknowledging the consequences of social conditions and accepting the assumption behind relativist research that truth requires concession between different viewpoints (Easterby-Smith et al., 2002).

During this research I was in no occasion personally involved with the respondents of my study (positivism). However, my feeling is that the theories and constructs applying to the subjects of my research, i.e. service quality perceptions, customer satisfaction, customer loyalty, culture and the relationships between them, are also relevant to me as an active citizen of the society from which I drew evidence. This particular characteristic of my research seems to be a marked departure towards social constructionism which is related with what people are feeling and thinking and the ways that they are communicating, verbally or otherwise (Easterby-Smith et al., 2002).

### 4.4. Research Methodology

Easterby-Smith et al. (2002) summarize the methodological implications of the social science epistemologies as in Table 4.1.

<table>
<thead>
<tr>
<th>Social Science Epistemologies</th>
<th>Positivism</th>
<th>Relativism</th>
<th>Social Constructionism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aims</td>
<td>Discovery</td>
<td>Exposure</td>
<td>Invention</td>
</tr>
<tr>
<td>Starting Points</td>
<td>Hypotheses</td>
<td>Suppositions</td>
<td>Meanings</td>
</tr>
<tr>
<td>Designs</td>
<td>Experiment</td>
<td>Triangulation</td>
<td>Reflexivity</td>
</tr>
<tr>
<td>Techniques</td>
<td>Measurement</td>
<td>Survey</td>
<td>Conversation</td>
</tr>
<tr>
<td>Analysis/Interpretation</td>
<td>Verification/falsification</td>
<td>Probability</td>
<td>Sense-making</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Causality</td>
<td>Correlation</td>
<td>Understanding</td>
</tr>
</tbody>
</table>

Source: Easterby-Smith et al. (2002)

This research aims at testing and/or extending the existing knowledge about the cross-cultural/cross-sectional application of service quality measurement, the causal relationships between service quality, customer satisfaction, customer loyalty at the level of dimensions and the cultural influences to these relationships. In line with its posi-
tioning towards positivism this research starts with an extensive review of the literature to take into account the existing state of knowledge (Easterby-Smith et al., 2002) on the constructs and relationships under examination. On the basis of this knowledge it sets hypotheses, explicitly or implicitly, about the constructs and the relationships between them. Finally, through empirical fieldwork, it seeks evidence that will confirm or disconfirm the hypotheses.

This research mainly employs quantitative techniques employed by positivist methods (Easterby-Smith et al., 2002). Being quantitative, it involves the systematic scientific investigation of quantitative properties and phenomena and their relationships. To achieve its objectives the study: a) generates theories and hypotheses, b) develops instruments and methods for measurement, c) collects empirical data, d) constructs models to analyze data and e) evaluates results (Fielding and Schreier, 2001).

To collect appropriate empirical data this research employs the survey strategy, appropriate when quantitative data are sought that will be analysed by statistical techniques to infer relationships between variables and determine the reasons for these relationships (Saunders et al., 2007). Although the questionnaire is not the only data collection technique in surveys it is the most prominent (Saunders et al., 2007). In this research, structured questionnaires are especially designed and used to collect evidence. However, questionnaire design and interpretation is based on focus-group discussions, a social constructionist approach (Easterby-Smith et al., 2002).

Studies that sample widely are usually called cross-sectional (Easterby-Smith et al., 2002). Such studies are usually undertaken to answer research questions based on data that are gathered just once. On the other hand, in situations that require phenomena to be studied at more than one point in time, the study is characterized as longitudinal. The term includes studies that are either based on data collected for each variable for two or more distinct periods or the samples are the same, or comparable, across periods or the analysis involves comparison of data between or among periods (Menard, 1991). There are several longitudinal designs: repeated cross-sectional, prospective, and retrospective (Ruspini, 2000). This research is repeated cross-sectional regarding the examination of the replicability, validity and reliability of the SERVQUAL scale and the examination of the relationships between the dimensions service quality, customer satisfaction and the dimensions of customer loyalty. At the same time, the study
is cross-sectional regarding the examination of the effects of culture on service quality/customer satisfaction.

The desired outcome in positivist research is causality, whereas in relativist research it is correlation (Easterby-Smith et al., 2002). This research uses correlational techniques, including factor, reliability and regression analyses, to test the applicability and dimensionality of the SERVQUAL scale. It employs path analysis to identify the dimension-dimension and dimension-construct relationships in the path service quality, customer satisfaction, customer loyalty. Further, it identifies the relationships between the theoretical dimensions of culture and of service quality and the relationships of the latter with customer satisfaction through correlational analysis. However, this research employs the aforementioned correlational techniques in a confirmatory manner in seeking answers that will establish causality in the relationships between the variables under examination.

4.5. Service Setting

This study draws from Greek retail insurance. Retail insurance in Greece is primarily conducted through agents or brokers, to a lesser extent through bankassurance, the European term for expressing the synergy between banking and insurance, and rarely through other means such as the internet, phone, mail etc. (Tsoukatos, 2003). Before and during a sale, the service encounter mainly takes place between customers and agents (or sales employees in banks). After sale service is usually provided by specialized service employees.

The Casualty and Liability Sector focuses on auto-vehicle and home-owners insurance (67% and 11% of annual premiums respectively) (http://www.eaee.gr/). The Life Sector focuses on individuals, in the 35-45 age range with average to higher income, who are seeking to improve their social insurance benefits.

A characteristic of insurance, in general, is the power that service providers usually exercise over their customers. Insurance is an infrequent service situation (not more than a couple of service contacts per year). In such situations, providers are equipped with expertise and skills on the service that are not usually shared by their customers. Consequently, providers exercise power over their customers (Donthu and Yoo, 1998; Furrer et al., 2000), especially if customers are not in very high income brackets or social positions. Based on these arguments, and considering the customer base on which
the industry is focused, customers in Greek retail insurance are assumed to be weak in relation to their service providers. This is relevant to my subsequent analysis, especially in relation to the effect of culture on service quality/customer satisfaction.

A distinctive characteristic of Greek insurance is that service is delivered mainly by females (almost 90% of insurance service employees are females). This is also relevant to my subsequent analysis as the gender of service employees determines the service expectations of customers with a high score in masculinity.

4.6. Outline of the Study

To accomplish its objectives, the empirical part of this research is conducted in two phases, each consisting of a series of stages.

4.6.1. Phase I

Phase I examines SERVQUAL’s applicability in yet another industry, insurance, in an under-researched culture and tests a model the constituent variables of which are service quality, customer satisfaction and customer loyalty, but at the level of individual dimensions rather than in the aggregate. This phase is conducted through the following stages.

Stage 1: Design a research instrument to collect data. This should be appropriate for providing data sufficient for subsequent analyses, including the measurement of service quality and the examinations of relationships between service quality, customer satisfaction and customer loyalty at the level of dimensions. Proceed with data collection.

Stage 2: Assess the dimensionality of the SERVQUAL scale on evidence from Greek insurance. Then proceed with the assessment of the customized metric’s validity, internal consistency and reliability.

Stage 3: Apply the scale to additional samples and confirm the dimensionality identified in stage 2. In each case assess the validity of the scale.

Stage 4: Build and test the model linking the dimensions of service quality, customer satisfaction and the dimensions of loyalty.
4.6.2. Phase II

Phase II deals with re-assessing the findings of phase I, by replicating the analyses on a new set of data, and examining the effect of culture on service quality perceptions and customer satisfaction under a new perspective that relates the cultural characteristics of customers (Hofstede, 1980, 1991) with the importance to them of the five dimensions of service quality (Parasuraman et al., 1988) and customer satisfaction. The stages of phase II are detailed as follows:

Stage 1: Extend the research instrument that was designed in phase I to allow for the measurement of culture, which is the new variable introduced in phase II. Use the extended instrument to collect a new set of data.

Stage 2: Re-assess the applicability and dimensionality of SERVQUAL on the new data set. Re-examine the scale’s validity, internal consistency and reliability.

Stage 3: Replicate the model linking the dimensions of service quality, customer satisfaction and the dimensions of loyalty of phase I and reassess its validity.

Stage 4: Examine the effects of culture, the new variable that was introduced into the analysis, on service quality and customer satisfaction.

4.7. Sampling and Survey Administration

In market research sampling prevails over census with the following reasons on its favour: cost and time constraints, feasibility and quality (concentration of efforts on a sample increases the quality of the research) (Lynn, 2002).

A number of sampling techniques ensuring equal chances of drawing population items, and hence reduce or eliminate sampling bias, are suggested in the literature (Burton et al., 1999). However, very frequently in the service-quality – customer-satisfaction literature convenience sampling is employed mainly because of the requirements of random sampling regarding the homogeneity of populations and the cost of locating and measuring chosen population items (see for instance Brady et al., 2002; Chang et al., 2002; Wang et al., 2004; Semeijn et al., 2005). In such cases there is an increased risk of sampling bias and usually the research designs do not provide means of assessing bias.
The sampling procedures of the two phases of this study were designed to, as much as possible, overcome potential biases. These are described in the following paragraphs.

### 4.7.1. Phase I

For achieving the goals of this study, certain sampling factors needed to be under control to avoid meaningless data. Therefore it was decided that only customers who met the following criteria would be included in the sample:

1. At least one policy in either insurance sector (life or property and liability)
2. Over the age of 25 (usually younger individuals in Greece have their parents paying for their bills) and
3. A service encounter with their insurer within the last three months.

The \( n=520 \) sample of the first phase consisted of four sub-samples taken independently by groups of trained interviewers. For the \( n_1=224 \) sample G (general sample), the “mall intercept” technique (Rice and Hancock, 2005), a frequently used convenience sampling method, was employed. Trained interviewers approached people in the market place of Heraklion, asking for a personal interview within the following few days in the respondents’ work places or homes.

Samples A, B and C of \( n_2=106, n_3=106 \) and \( n_4=84 \) respectively were taken from customer lists provided by insurers A, B and C that participated in the study. The three insurers provided lists of 150, 230 and 150 of their customers respectively, in Heraklion, Chania and Athens, representing all retail insurance customer groups. Each customer in the three lists was contacted by phone by an interviewer who, after confirming that the customer met the criteria for being eligible for the sample, explained about the study and asked for an interview to be taken in the customer’s work place or home within the next couple of days. The overall response rate was 55.9% (70.7%, 46.1% and 49.3%) respectively. The respondents’ demographics were considered by the management of the participating insurers as representing their respective customer bases.

The method of personal interview was chosen as being superior to self-administered questionnaires in perceptual or attitudinal surveys (Groves, 1989). All interviewers were last semester students of the Technological Educational Institute of Crete, department of Accounting. To reduce bias, interviewers were working in independent
pairs each of which dealt with a specific sub-sample. Eight interviewers working in four pairs were used in total.

4.7.2. Phase II

Given certain time and cost constraints it was decided that a relatively simpler procedure, than that of Phase I, would produce an acceptable sample. The “mall intercept” technique was once again used. A pair of interviewers, now final year students of the Department of Finance and Insurance of TEI of Crete, approached people in the market place of Heraklion and produced a sample of $n=252$ respondents, all meeting the same criteria that were set for phase I sampling.

4.8. Research Instruments

The research instrument that was used in phase II was an extension of the one used in phase I, which was especially designed for the purposes of the study.

4.8.1. Phase I

The research instrument for phase I (Appendix 1a) was designed to collect evidence from Greek retail insurance in four distinct but related areas; demographic information, service expectations, performance and quality perceptions, customer satisfaction and customer loyalty. Hence, it consisted of four sections.

After a series of demographic questions in the first section, the second section consisted of GIQUAL, a SERVQUAL type metric customized for Greek insurance. In the third section customers were requested to provide a score for their overall satisfaction with their insurer and its services. Finally, in the fourth section respondents were invited to reveal their intentions towards their service providers by providing answers to questions aiming at evaluating their sentimental and behavioural loyalty levels (Bansal and Taylor, 1999; Ranaweera and Prabhu, 2003). Prior to its use for data collection, the instrument was translated several times back and forth from Greek to English to ensure functional equivalence of its items in the two languages (Berg et al., 2003).

4.8.2. Phase II

The instrument that was used in phase II was an extended version of that of phase I. An additional section (Appendix 2) was included to measure the cultural characteristics of respondents under the typology of Hofstede (1980, 1991). This section consisted of the 20-item questionnaire that was developed by Furrer et al. (2000) which
had already been successfully used in a Greek setting by Sigala and Sakellaridis (2004).

4.9. The Greek Insurance SERVQUAL (GIQUAL)

SERVQUAL has been designed for a variety of service sectors. According to Parasuraman et al. (1988) “it provides a basic skeleton through its expectations and perceptions format, encompassing statements for each of the five service-quality dimensions. The skeleton, when necessary, can be adapted or supplemented to fit the characteristics of specific research needs of a particular organization”. An appropriately modified version of the original SERVQUAL scale (Appendix 1b), given the name GIQUAL (Greek Insurance SERVQUAL), was used for assessing service quality in both phases of the study. The process of designing, testing and modifying the instrument before being used is described in the following sections.

4.9.1. Consultation with Insurance Executives.

The SERVQUAL scale (Parasuraman et al. 1988) was extensively discussed with a group of 10 Area and Branch Managers of the three leading Insurers that participated in the study. The purpose of this consultation was to a) assess the appropriateness of the SERVQUAL scale for Greek retail insurance, b) review its items and c) propose necessary adjustments to the scale with regard to its use in the specific industry.

The Executives were asked to assess the five dimensions of service quality proposed by Parasuraman et al. (1988) and comment on whether these would sufficiently capture all aspects of service quality in Greek retail insurance. Further, they were asked to offer advice on: a) whether certain items should be reassigned between dimensions or removed from the scale b) whether some of the original items should be replaced by others and c) whether new items should be added to the scale to capture industry specific attributes.

They proposed that although the five SERVQUAL dimensions (tangibles, reliability, responsiveness, assurance and empathy) could indeed cover the various quality aspects of insurance in Greece, a number of additional items should be added to the scale.
4.9.2. Adapting the SERVQUAL scale for Greek Insurance

Products and services offered in Greek retail insurance are to a large extent standardised and have much in common with mass consumption products. Consequently, two additional items were added to the original SERVQUAL battery of items; “Q5 - Insurance products’ price”, was added as a tangibles item and “Q6 - offer quality products and services”, as a reliability item. The inclusion of the latter in a scale designed to measure service quality might seem odd at first sight. However, the expression “offer quality products and services”, when translated into Greek is interpreted as “offer suitable (well designed) products and services” that is, products and services that adequately suit the insurance needs of consumers. Hence, the item was consistent with the scale.

According to a study undertaken on behalf of the Association of Greek Insurance companies (ICAP, 2003), there is widespread scepticism among consumers for the Greek private insurance regarding a) ambiguity of certain terms in insurance contracts and b) unnecessary hassles in claim settlement. Two more items were accordingly added in the list of reliability items to capture these issues; “Q8 - contracts with clear terms” and “Q9 - settling claims with no unnecessary delays”. Thus, the GIQUAL battery initially included 26 items.

Although many believe that SERVQUAL type instruments should contain exactly twenty two items, in numerous cases scales with different numbers of items are used (Carman, 1990; Saurina and Coenders, 2002). After all, SERVQUAL was in the first place meant to serve as a basic skeleton, which could and should be customized to better capture the quality characteristics of individual industries under examination (Parasuraman et al., 1988).

4.9.3. Pre-testing and Modifying the Instrument

As a next step, the instrument was used with a group of 50 experienced insurance customers, during personal interviews, who were asked to a) offer advice on whether items were comprehensibly worded for the average Greek consumer and suggest any appropriate alterations and b) propose the addition of new items if necessary or the removal of items they would consider as meaningless. While no proposals for adding or removing items were made at this stage, certain items had to be reworded to be-
come comprehensible in Greek, three of which had to be considerably rephrased. In particular:

1. The expression “perform the service right the first time”, of the original SERVQUAL scale, is meaningless in Greek. In most cases extensive explanation about the significance of this item was necessary. After consulting the group of insurance executives the Greek equivalent of the expression “Excellent insurance companies offer their services right the first time without discomforting their customers” was considered as most appropriate.

2. The expressions “Excellent Insurance Companies will provide their services at the time they promise to do so” and “When excellent insurance companies promise to do something by a certain time, they will do so”, of the original SERVQUAL scale, were considered identical. The first expression was accordingly reworded as “Excellent insurance companies offer their services within the specified by the contract time limits”.

3. The expression “Excellent Insurance Companies will insist on error free records” of the revised SERVQUAL scale was considered as incomprehensible and was reworded to “Excellent insurance companies issue error free bills, statements, receipts, contracts, claims and other documents”.

4.9.4. Purification of the Instrument

After its administration, as part of the questionnaire for phase I, for data collection with sample G the Instrument went through a purification process based on the coefficient alpha suggested by Cronbach (1951) as a measure of reliability of measurement instruments.

Carmines and Zeller (1979) refer to the reliability of a measuring procedure as “the tendency toward consistency found in repeated measurements of the same phenomenon”. In surveys where all measures attempt to measure the same construct, internal consistency tests are used for assessing the reliability of measurement scales the predominant of which is Cronbach’s coefficient alpha (Vavra, 1997). Coefficient alpha is a test of how well related with each other are the items in a questionnaire or a section of a questionnaire.
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The coefficient alpha is calculated by the formula:

$$\alpha = \frac{n}{n-1} \left[ 1 - \frac{\sum V(y_i)}{\sum \sum C(y_i, y_j)} \right]$$

where $n$ is the number of items in the questionnaire (or section of questionnaire), $V(y_i) = \text{variances of the items under consideration}$ and $C(y_i, y_j) = \text{covariances of each item with every other item}$.

If all items are measured in identical scales, as is the case in SERVQUAL type instruments, then it can usually be assumed that all variances are equal (Vavra, 1997) and the coefficient alpha can be calculated by the simplified formula:

$$\alpha = \frac{n}{n-1} \frac{\sum \sum p_{ij}}{}$$

where $n= \text{the number of items in the questionnaire (or section of questionnaire)}$ and $p_{ij} = \text{the average inter-item correlation}$

The purification of GIQUAL was based on an iterating process consisting of two steps. First, the coefficient alpha was computed for each of the theoretical dimensions of service quality i.e. tangibles, reliability, responsiveness, assurance and empathy. Second, the removal, or redeployment between dimensions, of items was based on the “increase of coefficient alpha if item deleted” criterion (Pallant, J., 2001).

As a result of this process one item (“Q5 - Insurance products’ price”) had to be removed, as it did not fit to any dimension, and GIQUAL remained with twenty five items (see Appendix 2); four in tangibles, eight in reliability, four in responsiveness, four in assurance and five in empathy.

4.9.5. Reliability of the Instrument

The alpha coefficients of the theoretical dimensions, after the purification process, were 0.87 for tangibles, 0.94 for reliability, 0.93 for responsiveness, 0.93 for assurance and 0.90 for empathy while the total-scale reliability (reliability of linear combinations) was 0.97, all high enough to ensure the internal consistency of the scale (Tabachnick and Fidell, 2001).
4.10. Input variables

A number of observed and calculated variables were used for the analyses in phases I and II of the study. The observed variables on which the analysis of phase I was based were: a) Service Expectations (E_i) along the items of the GIQUAL scale b) Service Performance (P_i) perceptions along the same items, c) customer satisfaction (Customer_Satisfaction), d) the variable Recommend indicating the intentions of respondents to get engaged in favourable word-of-mouth for their insurer e) the variable Intend indicative of the extend to which customers are prepared to purchase again from the same insurer. In phase II the scores (H_i) across the twenty items of the scale of Furrer et al. (2000) for measuring the cultural profile of respondents were also introduced. The calculated variables are listed in Table 4.1.

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Phase</th>
<th>Purpose</th>
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<tbody>
<tr>
<td>Q_i (i=1 to 4 and 6 to 26)</td>
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<td>Expectations_Overall</td>
<td>Both Phases</td>
<td>Overall Expectations</td>
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<td>Perceptions_Overall</td>
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<td>Overall Perceived Service Quality</td>
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<tr>
<td>Expectations_Tangibles</td>
<td>Both Phases</td>
<td>Expectations in the corresponding dimensions of service quality</td>
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<tr>
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<td>Expectations_Reliability</td>
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<td>Expectations_Responsiveness</td>
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<td>Expectations_Assurance</td>
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<td>Expectations_Empathy</td>
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<tr>
<td>Perceptions_Tangibles</td>
<td>Both Phases</td>
<td>Performance Perceptions in the corresponding dimensions of service quality</td>
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<td>Perceptions_Non-Tangibles</td>
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<td>Perceptions_Reliability</td>
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<td>Perceptions_Responsiveness</td>
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<td>Perceptions_Assurance</td>
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<td>Perceptions_Empathy</td>
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<td>Tangibles</td>
<td>Both Phases</td>
<td>Service Quality Perceptions in the corresponding dimensions of service quality</td>
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<td>Reliability</td>
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<td>Responsiveness</td>
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<td>Assurance</td>
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<td>Empathy</td>
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<tr>
<td>Power_Distance</td>
<td>Phase II</td>
<td>Respondents’ profiles along the five dimensions of culture.</td>
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<td>Individualism</td>
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<td>Masculinity</td>
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<td>Uncertainty_Avoidance</td>
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<tr>
<td>Long_Term_Orientation</td>
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4.11. Measurement of Variables

The measurement methods of observed and calculated variables are described in this section.

4.11.1. Service Expectations

For each of the twenty five GIQUAL items, the variable $E_i$ (service expectations) was measured by a 7-point Likert scale (1-not at all important, 7-absolutely important).

Expectations_Overall (Overall Expectations) equals to $\sum_{i=1}^{25} E_i / 25$ while the aggregate expectations score for each dimension of service quality (Expectations_Tangibles, Expectations_Non-Tangibles, Expectations_Reliability, Expectations_Responsiveness, Expectations_Assurance and Expectations_Empathy) equals to $\sum_{i=1}^{n_k} E_i / n_k$ (where $n_k$ the number of items in the dimension under consideration).

4.11.2. Performance Perceptions

For each of the twenty five GIQUAL items, the variable $P_i$ (performance perceptions) was measured by a 7-point Likert scale (1-absolutely disagree, 7-absolutely agree).

Perceptions_Overall (Overall Perceived Performance) equals to $\sum_{i=1}^{25} P_i / 25$ while the aggregate performance score for each dimension of service quality (Perceptions_Tangibles, Perceptions_Non-Tangibles, Perceptions_Reliability, Perceptions_Responsiveness, Perceptions_Assurance and Perceptions_Empathy) equals to $\sum_{i=1}^{n_k} P_i / n_k$ (where $n_k$ the number of items in the dimension).

4.11.3. Service Quality Perceptions.

For each of the twenty five GIQUAL items, the variable $Q_i$ (service quality perceptions) was calculated as the difference between $P_i$ (performance perceptions) and $E_i$ (expectations) (Parasuraman et al., 1988).

$Q$-Overall (Overall Perceived Service Quality) equals to $\sum_{i=1}^{25} Q_i / 25$ while the aggregate performance score for each dimension of service quality (Tangibles, Non-Tangibles, Re-
liability, Responsiveness, Assurance and Empathy) equals to \( \sum_{i} \frac{Q}{n} \) (where \( n_k \) the number of items in the dimension under consideration).

### 4.11.4. Customer Satisfaction

Customer satisfaction was treated as a one-dimensional construct (Meyer and Westerbarkey, 1996) and was measured by a 10-point Likert scale (1-Not at all Satisfied, 10-Absolutely Satisfied).

### 4.11.5. Loyalty

The sentimental (word-of-mouth) and behavioural dimensions of loyalty of each respondent were separately measured by inviting respondents to provide answers to two specifically designed questions.

#### 4.11.5.1. Sentimental Loyalty

Sentimental loyalty was assessed by requesting respondents to answer the question “would you recommend your insurer and its services to friends and relatives?”. The options were “1-No” and “2-Yes”; the values of the dichotomous variable Recommend. Such variables are often regarded as “categorized” versions of Likert variables. In the case of Recommend, the answers “1-No” and “2-Yes” were treated as representing the end points of a Likert scale.

#### 4.11.5.2. Behavioural Loyalty

To assess behavioural loyalty, respondents were requested to choose one of the alternative answers to the question “how would you cover an additional insurance need of yours in the future?”. The options were “1-will buy from the same insurer”, “2-will search the market for the best deal” and “3-will buy from a different insurer”; the values of the trichotomous variable Intend.

Again, the answers “1-buy from some other insurer” was considered as corresponding to the lowest point of the Likert scale, “3-buy from the same insurer” to the highest and “2-search the market for the best deal” as representing the scale’s median point.

It might be argued that the options were not exclusive, because when a customer is searching the market for the best deal, eventually ends-up with buying either from the same or from some other insurer. However, these options reflect behavioural intentions rather than outcomes and, hence, they are exclusive.
4.11.6. Cultural Profile of Respondents

The 20-item questionnaire, developed by Furrer et al. (2000), that was used to assess the cultural profiles of respondents (Appendix 3) is divided into five parts of four items, each part designed to measure respondents’ scores along the dimensions Power_Distance, Individualism, Masculinity, Uncertainty_Avoidance and Long_Term_Orientation (Hofstede. 1980, 1991).

Two pairs of items, all measured using identical 7-point Likert scales, reflect the positive and negative poles in each dimension. For each individual, the overall score for each dimension of culture is given by the average of the scores of the items that operationalize the specific dimension; the items reflecting the negative pole were reverse coded. Overall scores with plus or minus signs indicate propensity towards the positive or negative poles respectively.

4.11.7. Importance of Service Quality Dimensions

In phase II of the study the importance of service quality dimensions to respondents had to be accounted for. For each respondent the expectations scores (Ei) were used as indicators of the relative importance of the 25 items. As indicators of the relative importance of service quality dimensions the variables Expectations_Tangibles, Expectations_Non-Tangibles, Expectations_Reliability, Expectations_Responsiveness, Expectations_Assurance and Expectations_Empathy were used.


The software packages employed for the study were SPSS V. 13.0. for Windows and Lisrel 8.72. The packages have been used to perform a number of statistical techniques to analyze the data collected in the first and second phases of the study. The same packages were utilised for appropriately screening the data before the application of each technique. The results of the various analyses are depicted in figures/charts and tables as evidenced in subsequent chapters. The techniques that were used in the two phases of the study are detailed in the following paragraphs.
4.12.1. Descriptive Statistics

The means, standard deviations, and distribution statistics (skewness and kurtosis) of continuous input variables were calculated. Discrete variables and respondents' demographics were analyzed by the use of frequencies.

4.12.2. Univariate and Multivariate Statistical Analyses

In order to test hypotheses through data analysis, several univariate and multivariate statistical techniques were employed. These techniques included Analysis of Variance (ANOVA) and Post Hoc multiple comparisons tests, Reliability Analysis, Multiple Regression Analysis, Factor Analysis, Path Analysis, Bivariate Correlation, Paired Samples t-tests and t-test for the Differences between Correlations. They are detailed in the following paragraphs.

4.12.3. Analysis of Variance

Analysis of Variance is a technique often used to test for statistical significance, differences in means for groups or variables. The null hypothesis is that no differences between the means exist while the alternative hypothesis is that the means are different from each other. A basic assumption is that variables under examination should be normally distributed.

Although this assumption is usually not met in the social sciences, Analysis of Variance is very often the obvious technique to be used for testing differences in means because the F test on which ANOVA is based is quite robust to deviations from normality and because of the central limit theorem, if the n per cell is large then deviations from normality do not matter at all (http://www.statsoft.com/textbook/stamman.html#deviation).

4.12.4. Post Hoc Tests

There are cases where identifying that the group means are different from each other is simply not enough and further analysis is needed to identify significant differences between specific pairs of means. A variety of methods exist for making such post-hoc tests, most of which are included in nearly all statistical software packages.
Post-Hoc tests are designed to identify the critical differences to be exceeded by pairs of groups’ means to be significant. The tests vary in terms of their sensitivity to violations from the assumptions for ANOVA and on their effectiveness of addressing certain statistical problems.

Although the use of different post-hoc tests may lead to the same conclusions, I have used the Dunnett’s test that allows for unequal numbers of cases in groups, unequal variances and deviations from normality (Hilton and Armstrong, 2006).

### 4.12.5. Multiple Regression Analysis.

Multiple regression analysis is a statistical technique that allows the researcher to assess the relationship between one dependent variable and several independent variables (Tabachnick and Fidel, 2001). It can provide information about the model as a whole, and the relative contribution of each of the independent variables that make up the model. In this study, multiple regression analysis was used to examine how well the dimensions of service quality can predict customer satisfaction.

### 4.12.6. Factor Analysis

Considering that a customized SERVQUAL metric was used it was important to determine the dimensionality of service quality in the setting of the study (Factor Analysis). Factor analysis is a technique designed to cluster attributes into subsets of highly interrelated variables (Rummel, 2003) which are supposedly independent of variables in other subsets. These subsets are called factors and can be interpreted as representing latent variables (Tabachnick and Fidell, 2001).

Factor Analysis was used to identify the dimensionality of the GIQUAL scale, i.e. the dimensionality of service quality in Greek insurance.

### 4.12.7. Path Analysis

Path Analysis was employed for studying the relationships between the dimensions of quality, overall satisfaction and the dimensions of loyalty. Path analysis is a statistical technique, within the family of Structural Equation Modelling techniques, which models explanatory relationships between variables and is usually employed when the models under examination do not contain latent variables. The advantage of path analysis over regression is that it concurrently performs multiple regression analyses while it produces an overall assessment of the fit of the model that is usually based on
a single chi square statistic (Singh and Wilkes, 1996). In addition, several goodness-of-fit indexes are available to better judge the fit.

### 4.12.8. Bivariate Correlation

Bivariate correlation measures the association between two continuous variables without establishing directional causality (Tabachnick and Fidel, 2001). It was used in phase II to examine hypotheses on the relationships between the dimensions of culture and service quality.

### 4.12.9. Paired Samples t-test

Paired-samples t-tests are used when data from the same sample are collected either under two different conditions or regarding the measurement of two different variables (Pallant, 2001). Paired samples t-tests were employed in phase 2 to examine the relative importance of service quality dimensions by establishing differences in the expectations scores.

### 4.12.10. t-test for the Differences Between Correlations

The differences of correlations between the dimensions of service quality and customer satisfaction, in phase II, were examined by a t-test described by Blalock (1972), that uses a t-statistic specially calculated by the formula

\[ t = (r_{xy} - r_{zy}) \sqrt{\frac{(n-3)(1+r_{xz})}{2(1-r_{xy}^2 - r_{xz}^2 - r_{zy}^2 + 2r_{xy}r_{xz}r_{zy})}} \]

(x and y are two variables from the same sample for which the difference of their correlations with the variable z is examined, n is the sample size and \( r_{xy}, r_{xz}, r_{zy} \) are the bivariate correlation coefficients between the variables x and y, x and z, z and y respectively).

### 4.13. Summary

This research has been undertaken to accomplish certain distinct, but interrelated objectives; to produce knowledge that will contribute towards closing gaps in the literature on certain major concerns of management research. Its approach is positioned in-between positivism and relativism and is designed accordingly.

Research instruments have been designed to collect data from Greek insurance, the industry providing evidence, appropriate sampling procedures followed and a variety of proper analyses conducted to produce valuable findings in relation to the study’s objectives.
5. DATA ANALYSIS

5.1. Overview

This chapter is devoted to data analysis. Two main sections describe the analyses in phases I and II of the study. In each section, respondents’ characteristics, input variables and screening procedures are discussed prior to presenting the analysis.

5.2. Phase I

Phase I of the study was conducted in 2004 and was aimed at developing a model linking the variables of the path:

‘service quality’ → ‘customer satisfaction’ → ‘loyalty’

in Greek retail insurance. Prior to constructing the model a scale appropriate for measuring service quality in Greek retail insurance had to be developed. Phase I included a series of logical steps that dealt with: a) designing a suitable research instrument and data collecting, b) identifying the dimensionality of the scale for measuring service quality in Greek insurance and assessing the metric’s validity, internal consistency and reliability, c) assessing the replicability of the metric in a number of samples and d) developing and testing a model linking the dimensions of service quality, customer satisfaction and the dimensions of loyalty. This section presents the main analyses conducted in this phase of the study and their results, before which the main demographic and quantitative input variables are described.

5.2.1. Characteristics of Respondents

Despite certain differences between individual samples, the analysis in phase I was based on a wider group of individuals often characterized as typical customers. Such customers constitute the customer base of retail insurance in Greece. Respondents were mostly men (≈ 60%), in the 36 to 55 age range (≈ 54%), with a lower to average family income (94% less than € 50,000 per year) and mostly employees of the civil and private sectors (≈ 54%). The demographic characteristics of respondents, overall and within samples, are summarized in Table 5.1.
Table 5.1. Phase I - Demographic Characteristics of Respondents

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>Sample A</th>
<th>Sample B</th>
<th>Sample C</th>
<th>Sample G</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
</tr>
<tr>
<td>106</td>
<td>106</td>
<td>84</td>
<td>224</td>
<td>520</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Freq. %</th>
<th>Freq. %</th>
<th>Freq. %</th>
<th>Freq. %</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>65</td>
<td>58</td>
<td>57</td>
<td>141</td>
<td>321</td>
</tr>
<tr>
<td>Female</td>
<td>41</td>
<td>48</td>
<td>27</td>
<td>83</td>
<td>199</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age Bracket</th>
<th>Freq. %</th>
<th>Freq. %</th>
<th>Freq. %</th>
<th>Freq. %</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;= 35</td>
<td>31</td>
<td>37</td>
<td>32</td>
<td>102</td>
<td>202</td>
</tr>
<tr>
<td>36 - 45</td>
<td>39</td>
<td>24</td>
<td>26</td>
<td>79</td>
<td>168</td>
</tr>
<tr>
<td>46 - 55</td>
<td>28</td>
<td>30</td>
<td>19</td>
<td>34</td>
<td>111</td>
</tr>
<tr>
<td>&gt;= 56</td>
<td>8</td>
<td>15</td>
<td>7</td>
<td>9</td>
<td>39</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Family Income</th>
<th>Freq. %</th>
<th>Freq. %</th>
<th>Freq. %</th>
<th>Freq. %</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 30.000</td>
<td>56</td>
<td>57</td>
<td>55</td>
<td>144</td>
<td>312</td>
</tr>
<tr>
<td>30.000 - 50.000</td>
<td>46</td>
<td>40</td>
<td>27</td>
<td>63</td>
<td>176</td>
</tr>
<tr>
<td>50.000 - 100.000</td>
<td>4</td>
<td>8</td>
<td>2</td>
<td>16</td>
<td>30</td>
</tr>
<tr>
<td>&gt; 100.000</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment</th>
<th>Freq. %</th>
<th>Freq. %</th>
<th>Freq. %</th>
<th>Freq. %</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>56</td>
<td>49</td>
<td>50</td>
<td>124</td>
<td>279</td>
</tr>
<tr>
<td>SelfEmployed/ Businessperson</td>
<td>27</td>
<td>36</td>
<td>18</td>
<td>60</td>
<td>141</td>
</tr>
<tr>
<td>Other</td>
<td>23</td>
<td>21</td>
<td>16</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>

5.2.1.1. Type of Insurance Policies

Insurers A and B are equally focused on Life and Property and Liability insurance but insurer C is better known, in the Greek insurance market, as a property and liability rather than a life insurance company. This was reflected in the samples that consisted of customers of insurers’ A, B and C respectively.

Sample G reflected a more general picture of the Greek insurance market where, contrary to most mature European Markets, the property and liability sector prevails (http://www.eaee.gr). A common characteristic of phase I respondents was that they mainly held private rather than business insurance policies. This was quite expected as this study drew evidence from retail insurance (Table 5.2).
Table 5.2. Phase I – Type of Insurance

<table>
<thead>
<tr>
<th>Insurance Cover</th>
<th>Sample A</th>
<th></th>
<th>Sample B</th>
<th></th>
<th>Sample C</th>
<th></th>
<th>Sample G</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>Life Insurance</td>
<td>74</td>
<td>69.8%</td>
<td>67</td>
<td>63.2%</td>
<td>37</td>
<td>44.0%</td>
<td>113</td>
<td>50.4%</td>
<td>291</td>
<td>56.0%</td>
</tr>
<tr>
<td>Property and Liability Insurance</td>
<td>72</td>
<td>67.9%</td>
<td>77</td>
<td>72.6%</td>
<td>71</td>
<td>84.5%</td>
<td>173</td>
<td>77.2%</td>
<td>393</td>
<td>75.6%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0.9%</td>
<td>1</td>
<td>0.9%</td>
<td>1</td>
<td>1.2%</td>
<td>2</td>
<td>0.9%</td>
<td>5</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

Private/Business Insurance

<table>
<thead>
<tr>
<th></th>
<th>Freq.</th>
<th>%</th>
<th>Freq.</th>
<th>%</th>
<th>Freq.</th>
<th>%</th>
<th>Freq.</th>
<th>%</th>
<th>Freq.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>100</td>
<td>94.3%</td>
<td>99</td>
<td>93.4%</td>
<td>78</td>
<td>92.9%</td>
<td>208</td>
<td>92.9%</td>
<td>485</td>
<td>93.3%</td>
</tr>
<tr>
<td>Business</td>
<td>12</td>
<td>11.3%</td>
<td>16</td>
<td>15.1%</td>
<td>8</td>
<td>9.5%</td>
<td>31</td>
<td>13.8%</td>
<td>67</td>
<td>12.9%</td>
</tr>
</tbody>
</table>

5.2.1.2. Insurers’ Service Failure and Service Recovery Records

To complete the picture Table 5.3 summarizes the service failure and service recovery records of insurers as these were reported by their customers. Insurer A had the lowest failure record with only 10.4% of its customers reporting problems in the past regarding service delivery, followed by insurer C with 16.7%. Insurer B had the worst record, between the three insurers that participated in the study, with 21.7% of its customers reporting service failures in the past. However, in sample G the percentage of customers reporting service failures was even higher (23.7%).

Customers in samples A, B and G reported service failures more in the areas of (unfair) compensation (45.5%, 47.8% and 54.7% respectively) and (lack of) information (36.4%, 26.1% and 15.1%) and less in the areas of sufficiency of insurance cover (13.2%, 18.2% and 17.4%) and personnel attitude (13.2%, 0.0% and 8.7%). On the other hand, the picture in sample C was quite different as Insurer C’s failures were equally related to (unfair) compensation, cover sufficiency and (bad) personnel attitude (28.6% in each area) and less to (lack of) information (14.3%).

Recovery records in all four samples were quite low. More than 50% of service failures reported by customers of insurers A and B were not recovered (54.5% and 52.2% respectively). The picture was slightly better in Sample G (44.3% of service failures not recovered). Insurer C had the worst recovery record with 78.6% of service failures not recovered.
Table 5.3. Phase I – Insurers’ Service Failures and Service Recovery Records

<table>
<thead>
<tr>
<th>Experienced a Service Failure in the Past</th>
<th>Sample A</th>
<th>Sample B</th>
<th>Sample C</th>
<th>Sample G</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>11 10.4%</td>
<td>23 21.7%</td>
<td>14 16.7%</td>
<td>53 23.7%</td>
<td>101 19.4%</td>
</tr>
<tr>
<td>No</td>
<td>95 89.6%</td>
<td>83 78.3%</td>
<td>70 83.3%</td>
<td>171 76.3%</td>
<td>419 80.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Service Failure Experienced in the Past</th>
<th>Sample A</th>
<th>Sample B</th>
<th>Sample C</th>
<th>Sample G</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>5 45.5%</td>
<td>11 47.8%</td>
<td>4 28.6%</td>
<td>29 54.7%</td>
<td>49 48.5%</td>
</tr>
<tr>
<td>No</td>
<td>6 54.5%</td>
<td>4 52.2%</td>
<td>4 0.0%</td>
<td>2 45.3%</td>
<td>13 51.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service Failure Recovered</th>
<th>Sample A</th>
<th>Sample B</th>
<th>Sample C</th>
<th>Sample G</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>5 45.5%</td>
<td>11 47.8%</td>
<td>3 21.4%</td>
<td>29 54.7%</td>
<td>48 47.5%</td>
</tr>
<tr>
<td>No</td>
<td>6 54.5%</td>
<td>12 52.2%</td>
<td>11 78.6%</td>
<td>24 45.3%</td>
<td>53 52.5%</td>
</tr>
</tbody>
</table>

5.2.2. Input Variables

Means and standard deviations of input variables are summarized in Table 5.4. Between samples means are compared by one way ANOVAs (Tables 5.4.1 and 5.4.2). For variables with unequal variances between groups (significant Levene’s statistic) the robust test for equality of means, based on the Welch statistic, was used. To allow for unequal group sizes and unequal variances, post-hoc multiple comparisons tests were based on Dunett’s T3 statistic. The main results of this analysis are detailed in the following paragraphs.

1. With the exception of Perceptions_Tangibles the means of variables are unequal between groups (in most cases p<0.05 and for variables Perceptions_Responsiveness, Perceptions_Empathy and Expectations_Responsiveness p<0.10).

2. **Customer Satisfaction.** Dunett’s T3 test indicates that the mean of the population from which sample C is drawn (Customers of Insurer C) is statistically lower (p<0.05) than the, statistically equal, means of the populations from which samples G (General Sample), A (Insurer A) and B (Insurer B) are drawn.

3. **Service Quality.** Perceptions of service quality are, on average, lower in sample C compared to the remaining three samples. This is mainly a result of
lower quality perceptions across the dimensions reliability, responsiveness, assurance and empathy rather than in tangibles.

4. **Service Expectations and Performance.** Differences in group means in certain variables expressing expectations and performance are not uniformly directed as is the case with customer satisfaction and overall service quality.

### Table 5.4. Phase I – Input Variables

<table>
<thead>
<tr>
<th></th>
<th>Sample A</th>
<th>Sample B</th>
<th>Sample C</th>
<th>Sample G</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Mean</td>
</tr>
<tr>
<td><strong>Customer_Satisfaction</strong></td>
<td>7.11</td>
<td>1.88</td>
<td>6.89</td>
<td>1.79</td>
<td>6.21</td>
</tr>
<tr>
<td><strong>Expectations_Overall</strong></td>
<td>6.63</td>
<td>0.65</td>
<td>6.46</td>
<td>0.86</td>
<td>6.67</td>
</tr>
<tr>
<td>Expectations_Tangibles</td>
<td>6.34</td>
<td>0.80</td>
<td>6.28</td>
<td>0.79</td>
<td>6.35</td>
</tr>
<tr>
<td>Expectations_Non-Tangibles</td>
<td>6.69</td>
<td>0.68</td>
<td>6.49</td>
<td>0.96</td>
<td>6.73</td>
</tr>
<tr>
<td>Expectations_Reliability</td>
<td>6.70</td>
<td>0.69</td>
<td>6.51</td>
<td>1.02</td>
<td>6.80</td>
</tr>
<tr>
<td>Expectations_Responsiveness</td>
<td>6.67</td>
<td>0.79</td>
<td>6.53</td>
<td>0.98</td>
<td>6.72</td>
</tr>
<tr>
<td>Expectations_Assurance</td>
<td>6.71</td>
<td>0.68</td>
<td>6.54</td>
<td>0.91</td>
<td>6.74</td>
</tr>
<tr>
<td>Expectations_Empathy</td>
<td>6.65</td>
<td>0.72</td>
<td>6.39</td>
<td>1.03</td>
<td>6.61</td>
</tr>
<tr>
<td><strong>Perceptions_Overall</strong></td>
<td>5.44</td>
<td>1.03</td>
<td>5.27</td>
<td>1.08</td>
<td>5.00</td>
</tr>
<tr>
<td>Perceptions_Tangibles</td>
<td>5.44</td>
<td>1.13</td>
<td>5.46</td>
<td>1.14</td>
<td>5.19</td>
</tr>
<tr>
<td>Perceptions_Non-Tangibles</td>
<td>5.44</td>
<td>1.05</td>
<td>5.24</td>
<td>1.14</td>
<td>4.97</td>
</tr>
<tr>
<td>Perceptions_Reliability</td>
<td>5.40</td>
<td>1.05</td>
<td>5.23</td>
<td>1.09</td>
<td>4.96</td>
</tr>
<tr>
<td>Perceptions_Responsiveness</td>
<td>5.55</td>
<td>1.18</td>
<td>5.38</td>
<td>1.33</td>
<td>5.06</td>
</tr>
<tr>
<td>Perceptions_Assurance</td>
<td>5.62</td>
<td>1.07</td>
<td>5.41</td>
<td>1.27</td>
<td>5.12</td>
</tr>
<tr>
<td>Perceptions_Empathy</td>
<td>5.26</td>
<td>1.19</td>
<td>5.00</td>
<td>1.27</td>
<td>4.78</td>
</tr>
<tr>
<td><strong>Quality_Overall</strong></td>
<td>-1.19</td>
<td>1.02</td>
<td>-1.18</td>
<td>1.24</td>
<td>-1.67</td>
</tr>
<tr>
<td>Tangibles</td>
<td>-0.89</td>
<td>1.13</td>
<td>-0.82</td>
<td>1.32</td>
<td>-1.16</td>
</tr>
<tr>
<td>Non-Tangibles</td>
<td>-1.25</td>
<td>1.07</td>
<td>-1.25</td>
<td>1.33</td>
<td>-1.77</td>
</tr>
<tr>
<td>Reliability</td>
<td>-1.31</td>
<td>1.07</td>
<td>-1.28</td>
<td>1.30</td>
<td>-1.84</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>-1.12</td>
<td>1.22</td>
<td>-1.15</td>
<td>1.46</td>
<td>-1.67</td>
</tr>
<tr>
<td>Assurance</td>
<td>-1.09</td>
<td>1.08</td>
<td>-1.13</td>
<td>1.46</td>
<td>-1.63</td>
</tr>
<tr>
<td>Empathy</td>
<td>-1.39</td>
<td>1.22</td>
<td>-1.39</td>
<td>1.49</td>
<td>-1.83</td>
</tr>
</tbody>
</table>
### Table 5.4.1. Phase I – Input Variables ANOVA*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Between Groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer_Satisfaction</td>
<td>40.426</td>
<td>3</td>
<td>13.475</td>
<td>4.212</td>
<td>0.006</td>
</tr>
<tr>
<td>Expectations_Tangibles</td>
<td>7.028</td>
<td>3</td>
<td>2.343</td>
<td>3.035</td>
<td>0.029</td>
</tr>
<tr>
<td>Perceptions_Tangibles</td>
<td>4.035</td>
<td>3</td>
<td>1.345</td>
<td>1.205</td>
<td>0.307</td>
</tr>
<tr>
<td>Perceptions_Responsiveness</td>
<td>12.206</td>
<td>3</td>
<td>4.069</td>
<td>2.623</td>
<td>0.050</td>
</tr>
<tr>
<td>Perceptions_Empathy</td>
<td>11.026</td>
<td>3</td>
<td>3.675</td>
<td>2.518</td>
<td>0.057</td>
</tr>
<tr>
<td>Tangibles</td>
<td>12.398</td>
<td>3</td>
<td>4.133</td>
<td>3.061</td>
<td>0.028</td>
</tr>
<tr>
<td>Total</td>
<td>1691.383</td>
<td>519</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within Groups</td>
<td>1650.957</td>
<td>516</td>
<td>3.200</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>398.337</td>
<td>516</td>
<td>0.772</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>405.365</td>
<td>519</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>577.709</td>
<td>516</td>
<td>1.116</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>579.744</td>
<td>519</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>800.411</td>
<td>516</td>
<td>1.551</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>812.617</td>
<td>519</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>753.117</td>
<td>516</td>
<td>1.460</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>764.143</td>
<td>519</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>696.672</td>
<td>516</td>
<td>1.350</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>709.069</td>
<td>519</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Non-Significant Levene’s Test

### Table 5.4.2. Phase I – Input Variables Robust Tests of Equality of Means*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Welch Statistic**</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectations_Overall</td>
<td>4.388</td>
<td>3</td>
<td>240.984</td>
<td>0.005</td>
</tr>
<tr>
<td>Expectations_Non-Tangibles</td>
<td>4.275</td>
<td>3</td>
<td>241.421</td>
<td>0.006</td>
</tr>
<tr>
<td>Expectations_Reliability</td>
<td>4.900</td>
<td>3</td>
<td>244.887</td>
<td>0.003</td>
</tr>
<tr>
<td>Expectations_Responsiveness</td>
<td>2.272</td>
<td>3</td>
<td>239.688</td>
<td>0.081</td>
</tr>
<tr>
<td>Expectations_Assurance</td>
<td>4.040</td>
<td>3</td>
<td>247.563</td>
<td>0.008</td>
</tr>
<tr>
<td>Expectations_Empathy</td>
<td>4.437</td>
<td>3</td>
<td>234.939</td>
<td>0.005</td>
</tr>
<tr>
<td>Perceptions_Overall</td>
<td>3.475</td>
<td>3</td>
<td>235.290</td>
<td>0.017</td>
</tr>
<tr>
<td>Perceptions_Non-Tangibles</td>
<td>3.732</td>
<td>3</td>
<td>236.206</td>
<td>0.012</td>
</tr>
<tr>
<td>Perceptions_Reliability</td>
<td>3.439</td>
<td>3</td>
<td>240.771</td>
<td>0.018</td>
</tr>
<tr>
<td>Perceptions_Assurance</td>
<td>4.116</td>
<td>3</td>
<td>236.191</td>
<td>0.007</td>
</tr>
<tr>
<td>Quality_Overall</td>
<td>5.928</td>
<td>3</td>
<td>235.558</td>
<td>0.001</td>
</tr>
<tr>
<td>Non-Tangibles</td>
<td>6.003</td>
<td>3</td>
<td>237.527</td>
<td>0.001</td>
</tr>
<tr>
<td>Reliability</td>
<td>7.123</td>
<td>3</td>
<td>241.505</td>
<td>0.000</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>4.629</td>
<td>3</td>
<td>237.863</td>
<td>0.004</td>
</tr>
<tr>
<td>Assurance</td>
<td>4.874</td>
<td>3</td>
<td>236.074</td>
<td>0.003</td>
</tr>
<tr>
<td>Empathy</td>
<td>4.107</td>
<td>3</td>
<td>231.799</td>
<td>0.007</td>
</tr>
</tbody>
</table>

* Significant Levene’s Test
** Asymptotically F distributed.
5.2.2.1. Input Variables in Relation with Service Failures and Service Recovery Records of Insurers

The input variables to the analysis, in this phase of the study, are Customer Satisfaction and Expectations, Perceptions and Quality scores, both overall and along the dimensions of Service Quality. A number of researchers (Parasuraman et al., 1988; McCollough, 1998; Taylor, 2001; Gil et al., 2006) have shown that these are related with service failures (performance that falls below an accepted standard mainly in core service) and service recovery, defined as “the actions and activities that the service organization and its employees perform to “rectify, amend, and restore the loss experienced by customers from deficiencies in service performance” (Bell and Zemke 1987.

There is proof that service failures lead customers to give lower satisfaction and service quality perceptions scores. On the other hand, successful service recovery restores, to a certain extent, these scores. However, it is uncommon that service recovery can leave a customer better off than if no service failure had occurred in the first place, in which case a “service recovery paradox” exists (McCollough and Bharadwaj, 1992).

To test the validity of the original SERVQUAL scale, Parasuraman et al. (1988) compared scores provided by customers who a) experienced service failures in the past, b) experienced no such failures and c) experienced successful recovery of service failures. In line with the recovery paradox theory (McCollough and Bharadwaj, 1992), the scores provided by customers who reported no failures were the highest, followed by those of customers who reported successful recovery of failures and finally by the scores provided by customers who experienced not recovered service failures (Parasuraman et al., 1988).

This pattern is fully replicated in this study. As can been seen in Table 5.5, respondents who reported no service failures in the past gave higher satisfaction and perceived service quality scores, both overall and across dimensions, compared to respondents who reported having such problems. However, successful recovery efforts partially repaired the damage. Compared to customers whose problems were not resolved by their insurers, respondents who experienced successful recovery efforts partially restored their satisfaction levels and service quality perceptions.
The type of problem did not significantly affect either customer satisfaction or service quality perceptions. In this respect the GIQUAL metric performs in exactly the same way as the original SERVQUAL scale (Parasuraman et al., 1988). Hence, GIQUAL can be considered as being successful in measuring what it was designed to measure i.e. service quality in Greek insurance.

Table 5.5. Phase I – Input Variables in Relation with Service Failures and Service Recovery Records of Insurers

<table>
<thead>
<tr>
<th>Customer Satisfaction</th>
<th>Service Failure not Experienced</th>
<th>Service Failure Experienced</th>
<th>Service Failure Recovered</th>
<th>Service Failure not Recovered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Mean</td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Expectations_Overall</td>
<td>7.15</td>
<td>1.59</td>
<td>5.39</td>
<td>1.97</td>
</tr>
<tr>
<td>Expectations_Tangibles</td>
<td>6.51</td>
<td>0.78</td>
<td>6.43</td>
<td>0.85</td>
</tr>
<tr>
<td>Expectations_Non-Tangibles</td>
<td>6.62</td>
<td>0.89</td>
<td>6.85</td>
<td>0.93</td>
</tr>
<tr>
<td>Expectations_Reliability</td>
<td>6.61</td>
<td>0.85</td>
<td>6.48</td>
<td>1.01</td>
</tr>
<tr>
<td>Expectations_Assurance</td>
<td>6.60</td>
<td>0.85</td>
<td>6.48</td>
<td>1.00</td>
</tr>
<tr>
<td>Expectations_Empathy</td>
<td>6.60</td>
<td>0.81</td>
<td>6.48</td>
<td>0.91</td>
</tr>
<tr>
<td>Perceptions_Overall</td>
<td>5.43</td>
<td>0.92</td>
<td>4.40</td>
<td>1.15</td>
</tr>
<tr>
<td>Perceptions_Tangibles</td>
<td>5.44</td>
<td>1.00</td>
<td>5.14</td>
<td>1.23</td>
</tr>
<tr>
<td>Perceptions_Non-Tangibles</td>
<td>5.43</td>
<td>0.94</td>
<td>4.26</td>
<td>1.24</td>
</tr>
<tr>
<td>Perceptions_Reliability</td>
<td>5.40</td>
<td>0.97</td>
<td>4.26</td>
<td>1.20</td>
</tr>
<tr>
<td>Perceptions_Assurance</td>
<td>5.58</td>
<td>1.04</td>
<td>4.24</td>
<td>1.45</td>
</tr>
<tr>
<td>Perceptions_Empathy</td>
<td>5.58</td>
<td>1.00</td>
<td>4.41</td>
<td>1.43</td>
</tr>
<tr>
<td>Quality_Overall</td>
<td>-1.09</td>
<td>0.99</td>
<td>-2.03</td>
<td>1.29</td>
</tr>
<tr>
<td>Tangibles</td>
<td>-0.78</td>
<td>1.11</td>
<td>-1.11</td>
<td>1.36</td>
</tr>
<tr>
<td>Non-Tangibles</td>
<td>-1.14</td>
<td>1.03</td>
<td>-2.21</td>
<td>1.43</td>
</tr>
<tr>
<td>Reliability</td>
<td>-1.21</td>
<td>1.06</td>
<td>-2.22</td>
<td>1.43</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>-1.02</td>
<td>1.15</td>
<td>-2.24</td>
<td>1.67</td>
</tr>
<tr>
<td>Assurance</td>
<td>-1.03</td>
<td>1.08</td>
<td>-2.07</td>
<td>1.61</td>
</tr>
<tr>
<td>Empathy</td>
<td>-1.23</td>
<td>1.17</td>
<td>-2.29</td>
<td>1.52</td>
</tr>
</tbody>
</table>

5.2.2.2. Sentimental and Behavioural Loyalty

The sentimental (word-of-mouth) and behavioural (repurchase intentions) dimensions of loyalty are expressed by the variables Recommend (dichotomous) and Intend (trichotomous) the frequency statistics of which are summarized in Table 5.6.

Overall, the majority of customers (74.04%) were prepared to get engaged in favourable, for their insurers and their services, word-of-mouth communication. Insurer A had the best (84.91%) and Insurer C the worst (59.52%) records in this respect. Sam-
ple B and G had almost equal records with 72.64% and 75.00% of customers respectively prepared to get engaged in favourable word-of-mouth communication.

Although customers were willing, in general, to offer positive word-of-mouth communication, they were not equally prepared to buy additional policies from the same insurer. The majority of customers (58.27%) would search the market for the best deal before buying an additional insurance policy, 33.46% would buy from the same insurer and 8.27% will definitely buy additional insurance from some other insurer. Again the best overall record had Insurer A while Insurers B and C and the General Sample were quite close in subsequent positions.

### Table 5.6. Phase I – Sentimental and Behavioural Loyalty

<table>
<thead>
<tr>
<th>Intentions to Recommend Insurer and its Services (Recommend)</th>
<th>Sample A</th>
<th>Sample B</th>
<th>Sample C</th>
<th>Sample G</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
</tr>
<tr>
<td>No</td>
<td>16 15.09</td>
<td>29 27.36</td>
<td>34 40.48</td>
<td>56 25.00</td>
<td>135 25.96</td>
</tr>
<tr>
<td>Yes</td>
<td>90 84.91</td>
<td>77 72.64</td>
<td>50 59.52</td>
<td>168 75.00</td>
<td>385 74.04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Repurchase Intentions (Intend)</th>
<th>Other Insurer</th>
<th>Search the Market</th>
<th>Same Insurer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
<td>Freq. %</td>
</tr>
<tr>
<td>Other Insurer</td>
<td>7 6.60</td>
<td>8 7.55</td>
<td>10 11.90</td>
</tr>
<tr>
<td>Search the Market</td>
<td>46 43.40</td>
<td>66 62.26</td>
<td>52 61.90</td>
</tr>
<tr>
<td>Same Insurer</td>
<td>53 50.00</td>
<td>32 30.19</td>
<td>22 26.19</td>
</tr>
</tbody>
</table>

#### 5.2.2.3. Sentimental and Behavioural Loyalty in relation to Service Failures and Service Recovery Records of Insurers

Customers who reported service failures were not so willing to get engaged into positive word-of-mouth communication. Only 34.65% of these customers were prepared to do so as opposed to customers who did not report such problems who were very much in favour of their insurers and eager to recommend them to others (83.53%).

As was the case with perceptions of quality, recovery efforts partially repaired the damage. Customers who had their problems resolved to their satisfaction, tended to partially restore their bonds with their insurers and 62.50% of them were willing to get engaged in positive word-of-mouth communication in favour of their insurers. On the other hand only 9.43% of customers with unresolved problems were willing to do the same.

In terms of repurchasing intentions only 14.85% of customers with problems in the past were willing to buy again from the same insurer compared with 37.95% of customers who reported no such problems. However, in both cases the majority of cus-
tomers (58%) were prepared to search the market before buying a new policy in either case. Recovery seemed to partially restore the damage once again, since 29.17% of customers who had their problems resolved regained their confidence in their insurers and were prepared to buy again from them. On the other hand only 1.89% of customers with unresolved problems were prepared to do so.

5.3. Data Analysis

The main aims of the analysis in phase I were to a) identify the dimensionality of the GIQUAL scale that was used for measuring service quality in Greek insurance, b) assess the scale’s internal consistency, reliability and validity, and c) develop and test a model that links the dimensions of service quality, customer satisfaction and the dimensions of loyalty. The analysis was conducted in a series of logical steps:

- **Step 1:** Use sample G to identify the dimensionality of GIQUAL. Then proceed with the assessment of the validity, internal consistency and reliability of the scale.

- **Step 2:** Apply the GIQUAL scale to samples A, B and C. Confirm the dimensionality identified in stage 1. Assess the scale with each data set.

- **Step 3:** Pool samples G, A, B and C to create a single sample. Based on the latter, build and test a model linking the dimensions of service quality, customer satisfaction and the dimensions of loyalty.

### 5.3.1. Step 1 - Dimensionality of GIQUAL

Analysis in step 1 was based on the twenty-five variables reflecting service quality (Qi) across the GIQUAL battery of items, drawing values from sample G. To identify the dimensionality of the GIQUAL scale Factor Analysis was conducted utilizing the SPSS 13.0 for Windows factor module.

#### 5.3.1.1. Data Screening

Prior to the analysis the data set was screened for Sample Size, Missing Data, Normality, Linearity, Multivariate Outliers, Multicollinearity, Singularity and Factorability of the Correlation Matrix. The screening procedure is described in the following paragraphs.
Sample Size and Missing Data

Comrey and Lee (1992) consider a sample of \( n \geq 200 \) as appropriate for factor analysis. Further, in solutions with several strong factor loadings (\( > 0.80 \)) smaller samples (of about \( n=150 \)) are considered adequate (Guadagnoli and Velicer, 1988). Hence, the \( n=224 \) Sample G was suitable for the analysis. It might be proven to be even more adequate once the factor loadings were calculated. The sample contained no missing data as the collection process involved personal interviewing conducted by interviewers specifically instructed not to accept partially filled questionnaires.

Normality

Although normality enhances solutions in factor analysis, usually there are no assumptions regarding the distributions of variables. However, multivariate normality (the assumption that all variables and all linear combination of variables are normally distributed) is assumed when the number of factors is determined (Tabachnick and Fidell, 2001).

On these grounds the twenty-five \( Q_i \) variables were examined for normality by skewness and kurtosis (Tabachnick and Fidell, 2001). Variables \( Q_9, Q_{10}, Q_{11}, Q_{13}, Q_{14}, Q_{16}, Q_{17}, Q_{18}, Q_{19}, Q_{20}, Q_{21} \) and \( Q_{24} \) presented significantly negative skewness \( (p < 0.001, \text{one tailed}) \) while variables \( Q_3, Q_4, Q_7, Q_{12}, Q_{13}, Q_{17}, Q_{18}, Q_{20}, Q_{23} \) and \( Q_{25} \) presented significantly positive kurtosis \( (p < 0.001, \text{one tailed}) \). Hence the aforementioned variables could not be considered as normally distributed.

Variable Transformation

Variable transformation is sometimes suggested for dealing with non-normality. However, variable transformation was excluded as an option for the following reasons:

a) Tabachnick and Fidell (2001) propose that “with large samples the significance level of skewness is not as important as its actual size (worse the further from zero)”. In this specific data set, the absolute value of skewness was less than 1 for all variables.

b) Further, Tabachnick and Fidell (2001) suggest that “underestimates of variance associated with positive kurtosis disappear with samples of 100 or more cases”. So kurtosis was not a problem in this data set as \( n=224 \).
c) Variable transformations could create problems of interpretation.

**Deletion of Variables**

Another method for dealing with non-normality is, sometimes, the deletion of variables. However, this option was also excluded on the grounds that GIQUAL consists of the SERVQUAL metric with the addition of certain items. Because SERVQUAL is a renowned and well documented instrument and the additional items were proposed by a group of executives with deep knowledge of the Greek insurance industry, all the items of GIQUAL were considered as theoretically and empirically well supported.

**Linearity**

Non-normality may cause non-linearity between pairs of variables that may degrade the solution in factor analysis. Linearity was examined by inspecting scatter plots of pairs of variables for linear or curvilinear patterns (Tabachnick and Fidell, 2001).

**Figure 5.1. Scatterplot between variables Q1 and Q13**

Because of the large number of variables no complete pairwise scatterplot analysis was undertaken. Thus, analysis for non-linearity was limited to certain variables ex-
expected to present the worst relationships between them (as suggested by Tabachnick and Fidell (2001)). The scatterplot between variables Q1 (with the most positive skewness) and Q13 (with the most negative one) is presented in Figure 5.1. The shape of the scatterplot indicates that the two variables are not related.

**Multivariate outliers**

Univariate or multivariate outliers present problems in all multivariate techniques because outliers influence the solution more than other cases (Tabachnick and Fidell, 2001). Because factor analysis is mainly concerned with the relationships between variables, the data set was examined for multivariate outliers.

To identify possible multivariate outliers either Mahalanobis Distance or Leverage (hii) can be used (Tabachnick and Fidell, 2001). The former is a measure of the distance of each case from the centroid of the remaining cases and the latter measures the degree to which a case is far from the others.

Mahalanobis Distance is evaluated for each case using the $\chi^2$ distribution with degrees of freedom equal to the number of variables (in this case twenty five). Thus, its distribution is associated with the number of variables but not with the sample size. On the other hand, Leverage (hii) is connected with Mahalanobis Distance through the relationship

$$h_{ii} = \frac{\text{Mahalanobis Distance}}{n-1} + \frac{1}{n}$$

(where n the sample size) and its distribution is associated with both the number of variables and the sample size. For this reason Leverage was selected as the criterion of identifying multivariate outliers in this analysis. For $\alpha < 0.001$ with 25 degrees of freedom, the critical value of $\chi^2$ is 52.62 and the corresponding critical value of hii, for $n=224$, is 0.240.

With this criterion, using SPSS regression with the case number as dependent variable (DV), and independent variables (IVs) the variables Q1 to Q4 and Q6 to Q26 (Tabachnick and Fidell, 2001), 20 cases were identified as multivariate outliers and excluded, leaving the sample with 204 cases. Outliers were further sought among the remaining cases with critical hii = 0.264. Nine more cases were identified and excluded, finally leaving the sample with 195 cases.

Because of the large number of outliers (twenty nine in total) and the large number of variables (twenty five) no case by case analysis was performed. Instead, SPSS regression was used to identify variables causing cases to be outliers. As suggested by Ta-
bachnick and Fidell (2001), a dummy variable (Dummy) was introduced with the value 1 for each case identified as an outlier and 0 for every other case. Then Dummy was declared as the dependent variable (DV) in a stepwise regression analysis with IVs the 25 variables (Q₁ to Q₄ and Q₆ to Q₂₆). Variables Q₃ – neat appearance of employees and agents, Q₇ – keeping promises and Q₁₁ – perform services right the first time, were identified as those causing multivariate outliers.

After the deletion of outliers, the sample was reduced to a number of cases less than \( n \geq 200 \) that was suggested by Comrey and Lee (1992). However, Guadagnoli and Velicer (1988) propose that even samples with \( n=150 \) or less would be adequate provided that a number of strong loadings would result from the analysis. If that was the case, then the \( n=195 \) sample should be sufficient and, hence, it was decided that the screening process and analysis should continue.

**Multicollinearity and Singularity**

Multicollinearity is a situation where the variables are too highly correlated and singularity means that some variables are redundant as combinations of two or more of the others. In factor analysis extreme multicollinearity and singularity are problems (Tabachnick and Fidell, 2001).

To assess for multicollinearity and singularity the Square Multiple Correlations (SMCs) for each variable serving as dependent variable with all other variables serving as independent variables were observed. Because the largest SMC among variables was not near 1 and the criteria for multicollinearity suggested by Belsey et al. (1980) (conditioning index > 30 for a dimension and at least two variance proportions for a variable > 0.50) were not met, it was concluded that this data set was not threatened by multicollinearity and/or singularity.

**Factorability of the Correlation Matrix (R).**

For an R matrix to be factorable, a number of sizeable correlations must be included. In the correlation matrix of the twenty five variables, two hundred and ninety nine out of the three hundred correlations were in excess of 0.30; a sign that Factor Analysis was an appropriate technique for analyzing this data set (Tabachnick & Fidell, 2001).

Further, Bartlett’s (1954) test of sphericity, testing the hypothesis that the correlations in R are zero, was significant (\( p=0.000 \)) and the measure of sampling adequacy (Kai-
ser, 1970; Kaiser and Rise, 1974) was 0.963 (very close to 1) both also indicating that the data set was appropriate for factor analysis.

5.3.1.2. Factor Analysis

The SPSS Factor was next used for factor analyzing the data to identify the best factorial model. The Maximum Likelihood factor extraction method (Lawley and Maxwell, 1963) was employed, the criterion for meaningful loading was set to 0.40 and the oblimin rotation method was selected to allow for possible correlations between factors. The Initial Eigenvalues > 1 criterion (Bryman and Cramer, 2001) suggested a 2 factor solution as did the Scree-Plot (Catell, 1966) which is shown in Figure 5.2.

The primary factor (non-tangibles) consisted of items Q6 to Q26 which, according to the classification of Parasuraman et al. (1988) formed the reliability, responsiveness, assurance and empathy dimensions. The secondary factor (tangibles) consisted of items Q1 to Q4. The solution explained 69.2% of the total variance of which 63.6% by non-tangibles and 5.6% by tangibles. The correlation coefficient between the two dimensions was 0.59.

The factor plot, presented in Figure 5.3, reveals that a simple structure existed (Thurstone, 1974) with both factors presenting a number of strong loadings (Comrey and Lee, 1992) and only one factor correlating highly with each item. The loadings of eighteen out of the twenty-one non-tangibles items exceeded 0.71 and considered ex-
The loadings of the remaining three non-tangibles items were very good (exceeding 0.63). In tangibles, two of the loadings were excellent, one was very good and one was good (very close to 0.55) (Comrey and Lee, 1992). These loadings enhanced the adequacy of the sample size.

The alpha coefficients (Cronbach, 1951) were 0.98 for non-tangibles and 0.86 for tangibles, both high enough to ensure the internal consistency of the two factor solution.

5.3.1.3 Assessing the Validity of the Scale

While reliability reflects the extent to which a scale provides consistent results across repeated measurements, validity is concerned with the relationship between the concept and the indicator (construct validity) (Carmines and Zeller, 1979).

Face Validity

The basic conceptual criterion related to construct validity is face or content validity, the extent to which a scale a) explicates thoroughly the construct to be measured and its domain and b) the scale’s items are inclusive to the measured construct (Vavra, 1997). Assessing content validity is necessarily qualitative rather than quantitative (Parasuraman et al., 1988). As discussed in earlier sections, GIQUAL was based on the SERVQUAL scale with the addition of certain items suggested, for Greek insurance, by executives with deep knowledge of the specific industry. This process can be
considered as satisfying both the aforementioned evaluative requirements. Therefore the scale can be considered to possess content validity.

**Predictive Validity**

The metric’s validity was assessed empirically by examining its predictive or criterion-related validity - i.e., the extent to which the GIQUAL scores can predict customers’ ratings on their overall satisfaction from their insurance provider and its services (Carmines and Zeller, 1979). In this respect the variable Customer_Satisfaction was regressed against the variables Tangibles and Non-Tangibles expressing average quality perceptions across the two dimensions of GIQUAL.

Before the analysis, the data set was screened for multicollinearity, singularity, multivariate outliers, normality, linearity and homoscedasticity. Eight cases were identified as multivariate outliers, on the basis of leverage exceeding the critical value, and excluded. Multicollinearity and singularity were no problems as the correlation coefficient between the two independent variables (Tangibles and Non-Tangibles) was found to be 0.59 and Tolerance, in the Collinearity Statistics part of the Coefficients section of the SPSS output, was high enough (0.72) for both IVs.

As the points in the Normal Probability Plot reasonably lay along the bottom left to top right diagonal and in the scatterplot of standardized residuals the points were rectangularly distributed around zero with no sign of systematic pattern, the assumptions on normality, linearity and homoscedasticity were considered to be practically met (Pallant, 2001).

**The Regression Model**

The regression coefficients of the estimated model are presented in Table 5.6. The value $R^2 = 0.44$ means that the model explained a significant proportion of the variance in the dependent variable and the predictive validity of the scale can be considered as good.

It must be noted that the coefficient of the variable Tangibles was not significant. As Tangibles represents the dimension tangibles, this actually means that the satisfaction formation process of customers does not allow for tangibles but is solely dependent on the intangible elements of service.
Table 5.6. Phase I – Regression Coefficientsa General Sample)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>8.09</td>
<td>0.13</td>
<td></td>
<td>61.22</td>
</tr>
<tr>
<td>Tangibles</td>
<td>0.06</td>
<td>0.10</td>
<td>0.04</td>
<td>0.65</td>
</tr>
<tr>
<td>Non-Tangibles</td>
<td>0.93</td>
<td>0.09</td>
<td>0.64</td>
<td>10.75</td>
</tr>
</tbody>
</table>

*Dependent Variable: Customer_Satisfaction*

5.3.2. Step 2 – Replicability of the GIQUAL Metric

Vavra (1997) proposes that “the reliability of tests or surveys attempting to measure multiple constructs is better assessed with test-retest schemes; these test for instrument stability”. The test-retest method, that was employed in phase I of this study, involved the re-application of the GIQUAL scale on data of each of the samples A, B and C consisting of customers of different insurers and taken independently, as described in chapter 4.

It was examined: a) whether the non-tangibles, tangibles dimensionality of GIQUAL would be replicated in all three samples, b) the pattern of internal consistencies in the three additional samples, and c) the predictive validity of the scale by investigating whether the variable Customer_Satisfaction would successfully regress on the variables Tangibles and Non-Tangibles in all three samples. Before the analysis the data sets were individually screened for appropriateness and no threats for the analysis were revealed.

5.3.2.1. Two-Dimensional Solutions

The replicability of the GIQUAL metric when applied to samples A, B and C was examined by factor analyzing the relevant data. In all replications the Maximum Likelihood factor extraction method (Lawley and Maxwell, 1963) was employed, the criterion for meaningful loading was set to 0.40 and the oblimin rotation method was selected to allow for possible correlations between factors.

The two-dimensional GIQUAL scale explained 67.83% of the variance (of which 61.72% from non-tangibles and 6.11% from tangibles) for sample A, 70.11% (of which 61.28% from non-tangibles and 8.83% from tangibles) for sample B and 62.18% (of which 55.26% from non-tangibles and 6.92% from tangibles) for sample C.
The between dimensions correlations were -0.526, 0.483 and 0.597 for samples A, B and C respectively. The pattern matrices of the rotated solutions are presented in Table 5.7.

<table>
<thead>
<tr>
<th>Item</th>
<th>Sample A</th>
<th>Sample B</th>
<th>Sample C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Tangibles</td>
<td>Tangibles</td>
<td>Non-Tangibles</td>
</tr>
<tr>
<td>Q1</td>
<td>-0.477</td>
<td>0.753</td>
<td>0.743</td>
</tr>
<tr>
<td>Q2</td>
<td>-0.779</td>
<td>0.894</td>
<td>0.873</td>
</tr>
<tr>
<td>Q3</td>
<td>-0.999</td>
<td>0.902</td>
<td>0.833</td>
</tr>
<tr>
<td>Q4</td>
<td>-0.539</td>
<td>0.859</td>
<td>0.657</td>
</tr>
<tr>
<td>Q5</td>
<td>0.833</td>
<td>0.657</td>
<td>0.453</td>
</tr>
<tr>
<td>Q6</td>
<td>0.773</td>
<td>0.638</td>
<td>0.792</td>
</tr>
<tr>
<td>Q7</td>
<td>0.886</td>
<td>0.753</td>
<td>0.502</td>
</tr>
<tr>
<td>Q8</td>
<td>0.774</td>
<td>0.788</td>
<td>0.706</td>
</tr>
<tr>
<td>Q9</td>
<td>0.740</td>
<td>0.860</td>
<td>0.968</td>
</tr>
<tr>
<td>Q10</td>
<td>0.793</td>
<td>0.856</td>
<td>0.925</td>
</tr>
<tr>
<td>Q11</td>
<td>0.813</td>
<td>0.797</td>
<td>0.587</td>
</tr>
<tr>
<td>Q12</td>
<td>0.630</td>
<td>0.556</td>
<td>0.521</td>
</tr>
<tr>
<td>Q13</td>
<td>0.790</td>
<td>0.876</td>
<td>0.469</td>
</tr>
<tr>
<td>Q14</td>
<td>0.811</td>
<td>0.944</td>
<td>1.028</td>
</tr>
<tr>
<td>Q15</td>
<td>0.777</td>
<td>0.916</td>
<td>0.868</td>
</tr>
<tr>
<td>Q16</td>
<td>0.889</td>
<td>0.767</td>
<td>0.874</td>
</tr>
<tr>
<td>Q17</td>
<td>0.924</td>
<td>0.988</td>
<td>0.810</td>
</tr>
<tr>
<td>Q18</td>
<td>0.965</td>
<td>0.933</td>
<td>0.789</td>
</tr>
<tr>
<td>Q19</td>
<td>0.621</td>
<td>0.872</td>
<td>0.635</td>
</tr>
<tr>
<td>Q20</td>
<td>0.700</td>
<td>0.857</td>
<td>0.597</td>
</tr>
<tr>
<td>Q21</td>
<td>0.725</td>
<td>0.653</td>
<td>0.646</td>
</tr>
<tr>
<td>Q22</td>
<td>0.724</td>
<td>0.545</td>
<td>0.579</td>
</tr>
<tr>
<td>Q23</td>
<td>0.687</td>
<td>0.764</td>
<td>0.668</td>
</tr>
<tr>
<td>Q24</td>
<td>0.868</td>
<td>0.891</td>
<td>0.743</td>
</tr>
<tr>
<td>Q25</td>
<td>0.843</td>
<td>0.823</td>
<td>0.755</td>
</tr>
</tbody>
</table>


The Pattern Matrices confirm that the two dimensional solution was reproduced in the three independent samples. The four Tangible items (Q1, Q2, Q3 and Q4) steadily loaded together but for respondents in Sample C, item Q13 (error free bills etc) loaded on tangibles.

The loading, greater than one, for item Q15 in sample C, might seem odd at first sight. However, in oblique rotations the pattern matrix loadings are not correlation coefficients, as are the loading matrix values in orthogonal rotations (Tabachnick and Fidell, 2001), but “the weights applied to measured variables to obtain scores on the latent variables” (Thompson, 2004). In this sense pattern matrix loadings are analogous to β weights in multiple regression i.e. standardized coefficients. Therefore, pattern load-
ings greater than one can occur and such loadings do not indicate anything wrong with the model/analysis.

Negative $\beta$ coefficients in multiple regression analysis indicate inverse effects of independent variables to the dependent variable. Therefore, the negative loadings of Tangible items in sample A, simply indicate that the measured variables are inversely affecting the latent variable, in this case the factor tangibles.

5.3.2.2. Internal Consistency

The $\alpha$ coefficient (Cronbach, 1951) was once again used as a measure of the internal consistency of the scale. In all three samples the $\alpha$ values for tangibles and non-tangibles and total-scale were calculated (Table 5.8)

<table>
<thead>
<tr>
<th></th>
<th>Sample A</th>
<th>Sample B</th>
<th>Sample C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>0.88</td>
<td>0.92</td>
<td>0.88</td>
</tr>
<tr>
<td>Non-Tangibles</td>
<td>0.99</td>
<td>0.98</td>
<td>0.97</td>
</tr>
<tr>
<td>Total-Scale</td>
<td>0.97</td>
<td>0.97</td>
<td>0.97</td>
</tr>
</tbody>
</table>

As the contents of Table 5.8 reveal all alpha values are consistent with the corresponding values in sample G with alphas for tangibles consistently lower than those for non-tangibles.

5.3.2.3. Predictive Validity

The predictive validity of the scale was examined by regressing, in each of the samples A, B and C, the variable Customer_Satisfaction, representing the satisfaction scores of customers, on the variables Tangibles and Non-Tangibles, representing service quality across the dimensions tangibles and non-tangibles of the scale. Before analysis, all three independent data sets were screened for regression analysis appropriateness and no threats for the analysis were revealed. The summaries of the three models and the corresponding coefficients are presented in Tables 5.9 and 5.10.
Table 5.9. Phase I – Regression Model Summaries (b)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.814(a)</td>
<td>0.663</td>
<td>0.657</td>
<td>1.104</td>
<td>0.590</td>
<td>0.582</td>
<td>1.157</td>
<td>0.825(a)</td>
<td>0.680</td>
<td>0.672</td>
<td>0.903</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>0.768(a)</td>
<td>0.590</td>
<td>0.582</td>
<td>1.157</td>
<td>0.680</td>
<td>0.672</td>
<td>0.903</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>0.825(a)</td>
<td>0.680</td>
<td>0.672</td>
<td>0.903</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Non-Tangibles, Tangibles
b Dependent Variable: Customer Satisfaction

Table 5.10. Phase I – Regression Coefficients(a)

<table>
<thead>
<tr>
<th>Sample</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>(Constant)</td>
<td>8.912</td>
<td>0.166</td>
<td>53.797</td>
</tr>
<tr>
<td></td>
<td>Tangibles</td>
<td>0.111</td>
<td>0.125</td>
<td>0.066</td>
</tr>
<tr>
<td></td>
<td>Non-Tangibles</td>
<td>1.362</td>
<td>0.132</td>
<td>0.770</td>
</tr>
<tr>
<td>B</td>
<td>(Constant)</td>
<td>8.173</td>
<td>0.156</td>
<td>52.516</td>
</tr>
<tr>
<td></td>
<td>Tangibles</td>
<td>-0.024</td>
<td>0.099</td>
<td>-0.017</td>
</tr>
<tr>
<td></td>
<td>Non-Tangibles</td>
<td>1.044</td>
<td>0.098</td>
<td>0.777</td>
</tr>
<tr>
<td>C</td>
<td>(Constant)</td>
<td>8.692</td>
<td>0.213</td>
<td>40.799</td>
</tr>
<tr>
<td></td>
<td>Tangibles</td>
<td>-0.129</td>
<td>0.116</td>
<td>-0.089</td>
</tr>
<tr>
<td></td>
<td>Non-Tangibles</td>
<td>1.489</td>
<td>0.136</td>
<td>0.877</td>
</tr>
</tbody>
</table>

a Dependent Variable: Customer Satisfaction

All three regression models presented high R²’s, higher than that of sample G, a sign that service quality is a good predictor of customer satisfaction.

Similarly, in all three models the coefficient of the variable Tangibles, that represents service quality in the dimension tangibles, was not significant and this confirms that in Greek insurance, customer satisfaction is based only on the Intangible elements of service.

5.3.2.4. Further Examination based on Demographic Characteristics

To examine the impact of various demographic characteristics on a) the dimensionality of the scale, and b) the formation of satisfaction in terms of average quality perceptions, the analysis, described in the preceding paragraphs, was re-applied to various sub-samples formed according to gender, age, income, profession, type of insurance etc. In all cases non-tangibles was the primary and tangibles the secondary factor. Further, Customer_Satisfaction regressed, satisfactorily, on Tangibles and Non-Tangibles with the coefficient of Tangibles being non-significant in all cases.
5.3.2.5. Conclusion

As a result of the analyses conducted so far regarding the reliability, internal consistency, validity and stability of the GIQUAL scale it was concluded that the scale is reliable, valid and stable and can be used to assess service quality levels in Greek insurance.

5.3.3. Step 3. Building and Testing the Model

To understand how the intentions of customers towards their insurers are affected by service quality and customer satisfaction, a model linking the three constructs was built and tested. Having established the appropriateness and dimensionality of the GIQUAL scale in Greek insurance, samples A, B, C and G were pooled to an \( n=520 \) cumulative sample (S), on which step three of the analysis was conducted. Path Analysis, performed by the LISREL 8.72 statistical package, was employed for defining and testing the model.

The literature on the aggregate relationships between service quality, customer satisfaction and loyalty is quite rich (e.g. Woodside et al., 1989; van der Wiele et al., 2002) but this is not the case when the individual dimensions of the constructs are taken into account. On this basis it was decided that the study would better contribute to the existing knowledge base if the model included the individual dimensions of service quality, as these were identified in Steps 1 and 2 of the analysis, and the dimensions of loyalty, as described in the literature and measured by the fourth section of the questionnaire that was used for data collection. In other words it was decided to study the relationships at the level of individual dimensions, rather than in the aggregate, as shown in Figure 5.4.

Figure 5.4. Phase I - From Service Quality to Loyalty through Satisfaction

\[
\begin{array}{c}
\text{Tangibles} \\
0.02 \\
(0.15)
\end{array}
\begin{array}{c}
\text{Non_Tangibles} \\
0.73 \\
(3.94)
\end{array}
\begin{array}{c}
\text{Customer_Satisfaction} \\
0.84 \\
(9.79)
\end{array}
\begin{array}{c}
\text{Recommend} \\
0.79 \\
(2.12)
\end{array}
\begin{array}{c}
\text{Intend} \\
-0.04 \\
(-0.09)
\end{array}
\]
For the purposes of the analysis, the variables Tangibles, Non-Tangibles and Customer Satisfaction were defined as continuous: the first two have more than 15 distinct values and the third because it is common practice to consider Likert variables with \( \geq 7 \) points as continuous in Structural Equation Modelling (SEM). The variables Recommend (dichotomous) and Intend (trichotomous), were treated as categorised versions of Likert variables as is often the case in SEM. The variables Tangibles and Non-Tangibles were introduced uncorrelated in the model as in the pooled sample the two factors emerged as a result of a Varimax that produces orthogonal solutions.

The link from Recommend to Intend was included in the model to be tested on the basis of the long experience of the writer as an insurance agent in Greece. The logic behind this hypothesis was that repurchasing insurance from a supplier is further strengthening an existing relationship, making it more difficult for it to be terminated, and also involves money payment.

On the other hand, the act of simply recommending the supplier is an emotional reaction that does not involve any payments or impose any restrictions on the customer. Recommend and Intend represent the emotional and behavioural extent of the customer’s loyalty respectively and as such there must be a relationship between them. On the grounds of the above-mentioned argument it was hypothesized that the direction of this relationship would be from the variable Recommend to the variable Intend.

5.3.3.1. Model Estimation

Maximum Likelihood (ML) is the most commonly used estimation method in SEM. It maximizes the probability that the observed covariances are drawn from a population that has its variance-covariance matrix generated by the process implied by the model, assuming multivariate normality. As multivariate normality is not generally met in practice, several estimation methods for overcoming the fit problems arising from its absence have been developed. ML, itself, is fairly robust against violations from multivariate normality. However, to extend its applicability, corrections have been developed to adjust ML estimators to account for non-normality including the Sattora-Bentler statistic incorporated in most SEM packages (Bentler, 2004).

In terms of sample size, the minimum \( n \) for ML estimation should be at least 200, according to some researchers. Others suggest at least fifteen times the number of ob-
served variables or five times the number of free parameters including error terms or ten times the number of free parameters for strongly kurtotic data (Golob, 2003). The sample size of \( n=520 \) met all these requirements on the basis that the model under examination contained only five variables.

Before analysis, the data set was screened and found to deviate from multivariate normality. Hence, the Robust Maximum Likelihood estimation method, based on the correlation matrix and the asymptotic covariance matrix, was used and the solution shown in Figure 5.4 is obtained.

The estimated path coefficients supported the argument that quality is an antecedent and that it positively affects customer satisfaction (Cronin and Taylor, 1992). Tangibles and Non-Tangibles as independent variables (IVs) explained 55.4% \( (R^2 = 0.554) \) of the variance of Customer Satisfaction as dependent variable (DV). However, only the coefficient of Non-Tangibles was significant (standardized value = 0.73, t-value = 3.94) while the coefficient of Tangibles was not (standardized value = 0.02, t-value = 0.15). This confirmed the relevant results in previous stages of the analysis.

The argument that satisfaction is an antecedent and positively influences loyalty was also supported by the findings. The path coefficient from Customer Satisfaction to Recommend was significant (standardized coefficient = 0.84, t-value = 9.79). Customer Satisfaction explained 71% \( (R^2 = 0.71) \) of the variance of Recommend. Customer Satisfaction and Recommend, as IVs, explained 58.3% of the variance of Intend as DV. However, only the coefficient of Recommend was significant (standardized coefficient = 0.79, t-value = 2.12) while the coefficient of Customer Satisfaction was not (standardized coefficient = -0.04, t-value = -0.09). This confirmed the hypothesis that emotional loyalty is an antecedent of the customer’s behavioural loyalty. Satisfaction does influence positively the customers’ behavioural intentions but only through their intentions to get engaged in positive word-of-mouth (WOM) for the supplier.
### 5.3.3.2 Overall Model Fit

Diamantopoulos and Siguaw (2000) suggest that the results of the chi-square test used in conjunction with the RMSEA, ECVI, standardized RMR, GFI and CFI indices are sufficient to assess a model’s overall fit.

A non-significant chi-square statistic is an indication that the model can reproduce the population covariance matrix. In this case, the Sattora-Bentler scaled Chi-Square statistic (Bentler, 2004) was used and found to be non-significant. The Root Mean Square Error of Approximation (RMSEA) indicates “how well would the model, with unknown but optimally chosen parameter values, fit the population covariance matrix if it were available”. The RMSEA’s value of less than 0.05 indicated a good fit for the model. The Expected Cross Validation Index (ECVI) assesses whether a model is likely to repeat itself across samples of the same size in the same population. In practice, the model’s ECVI is used in conjunction with the ECVIs of the independence and saturated model. A hypothesized model can be considered as falling between these two extremes and its ECVI is expected to be lower than the ECVI of the independence model but higher than the one of the saturated model, as was the case with the estimated model. The standardized Root Mean Square Residual (RMR) is a summary index of the standardized residuals and a value below 0.05 is considered as indicating acceptable fit. The Goodness of Fit Index (GFI) is an indicator of the amount of variance and covariance accounted for by the model and a value exceeding 0.90 is considered as reflecting acceptable fit. Last, but not least, the comparative fit index (CFI) is based on the non-centrality parameter and a value exceeding 0.90 is an indication of good fit. (Diamantopoulos and Siguaw, 2000; Kelloway, 1998). Table 5.11 contains a summary of the model’s fit statistics, as produced by LISREL 8.72.

<table>
<thead>
<tr>
<th>Table 5.11 Phase I - Test statistics of Estimated Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degrees of Freedom</td>
</tr>
<tr>
<td>Satorra-Bentler Scaled Chi-Square</td>
</tr>
<tr>
<td>Chi-Square Corrected for Non-Normality</td>
</tr>
<tr>
<td>RMSEA</td>
</tr>
<tr>
<td>ECVI</td>
</tr>
<tr>
<td>ECVI for Saturated Model</td>
</tr>
<tr>
<td>ECVI for Independence Model</td>
</tr>
<tr>
<td>Standardized RMR</td>
</tr>
<tr>
<td>GFI</td>
</tr>
<tr>
<td>CFI</td>
</tr>
</tbody>
</table>

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The combination of their values shows that the hypothesized model unquestionably fitted the data.

5.4. Phase II of the Study

This section deals with the analyses conducted in phase II of the study. The extension of the study to phase II was decided as a consequence of the results of phase I regarding the dimensionality of the GIQUAL scale and the resultant limitations of both the metric and the model. The variable culture was introduced in the analysis and phase II intended to examine the relationships between culture and the dimensions of culture/customer satisfaction. Prior to this examination the replicability of the GIQUAL metric and the model were also appraised. The characteristics of respondents, input variables and screening procedures are discussed prior to presenting actual analyses.

5.4.1. Characteristics of Respondents

The basic characteristics of respondents in phases I and II of the study (namely gender, age, family income and employment) are summarized in Table 5.12.

<table>
<thead>
<tr>
<th></th>
<th>Phase II</th>
<th>Phase I</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sample Size</strong></td>
<td>252</td>
<td>520</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td>Male</td>
<td>134</td>
<td>53.2%</td>
</tr>
<tr>
<td>Female</td>
<td>118</td>
<td>46.8%</td>
</tr>
<tr>
<td><strong>Age Bracket</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td>&lt;= 35</td>
<td>111</td>
<td>44.1%</td>
</tr>
<tr>
<td>36 - 45</td>
<td>78</td>
<td>31.0%</td>
</tr>
<tr>
<td>46 - 55</td>
<td>49</td>
<td>19.4%</td>
</tr>
<tr>
<td>&gt;= 56</td>
<td>12</td>
<td>4.8%</td>
</tr>
<tr>
<td>Missing System</td>
<td>2</td>
<td>0.8%</td>
</tr>
<tr>
<td><strong>Family Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td>&lt; 30.000</td>
<td>141</td>
<td>56.0%</td>
</tr>
<tr>
<td>30.000 - 50.000</td>
<td>81</td>
<td>32.1%</td>
</tr>
<tr>
<td>50.000 - 100.000</td>
<td>25</td>
<td>9.9%</td>
</tr>
<tr>
<td>&gt;= 100.000</td>
<td>3</td>
<td>1.2%</td>
</tr>
<tr>
<td>Missing System</td>
<td>2</td>
<td>0.8%</td>
</tr>
</tbody>
</table>
Table 5.12 Phase II vs. Phase I – Demographic Characteristics of Respondents

<table>
<thead>
<tr>
<th>Employment</th>
<th>Phase II</th>
<th>Phase I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td>Employee</td>
<td>168</td>
<td>66.7%</td>
</tr>
<tr>
<td>Self Employed/Businessperson</td>
<td>48</td>
<td>19.1%</td>
</tr>
<tr>
<td>Other</td>
<td>36</td>
<td>14.3%</td>
</tr>
</tbody>
</table>

Despite certain variations, the two samples can be considered as coming from the same population in terms of the aforementioned characteristics ($p > 0.05$). Respondents in phase II were also mostly men ($\approx 53\%$), in the 36 to 55 age brackets ($\approx 50\%$), with a lower to average family income ($89\%$ less than € 50,000 per year) and mostly employees of the civil and private sectors ($\approx 67\%$).

5.4.1.1. Type of Insurance Policies

Table 5.13 summarizes the types of insurance policies that phase II respondents held. This sample reflected a reality about Greek insurance, also indicated in phase I. That is, contrary to most mature European Markets, the property and liability sector prevails. As in phase I, phase II respondents mainly held private policies.

Table 5.13 Phase II – Type of Insurance

<table>
<thead>
<tr>
<th>Insurance Coverage</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life Insurance</td>
<td>143</td>
<td>56.75%</td>
</tr>
<tr>
<td>Property and Liability Insurance</td>
<td>201</td>
<td>79.76%</td>
</tr>
</tbody>
</table>

5.4.1.2. Insurers’ Service Failure/Service Recovery Records

Finally Table 5.14 summarizes the service failures and service recovery record of insurers in phase II. The setting is very similar to that in phase I. Almost 21% of respondents had some sort of problem with their insurers in the past; mostly compensation and information problems and fewer problems of cover sufficiency and personnel attitude. Less than half (43.1%) of these problems had been resolved in favour of the respondents.
Table 5.14 Phase II – Insurers’ Service Failures and Service Recovery Records

<table>
<thead>
<tr>
<th>Experienced a Service Failure in the Past</th>
<th>Frequency.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>54</td>
<td>21.43%</td>
</tr>
<tr>
<td>No</td>
<td>198</td>
<td>78.57%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Service Failure Experienced in the Past</th>
<th>Frequency.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation</td>
<td>26</td>
<td>44.83%</td>
</tr>
<tr>
<td>Information</td>
<td>14</td>
<td>24.14%</td>
</tr>
<tr>
<td>Cover Sufficiency</td>
<td>9</td>
<td>15.52%</td>
</tr>
<tr>
<td>Personell Attitude</td>
<td>7</td>
<td>12.07%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>3.45%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>58</strong></td>
<td><strong>23%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service Failure Recovered</th>
<th>Frequency.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>25</td>
<td>43.10%</td>
</tr>
<tr>
<td>No</td>
<td>33</td>
<td>56.90%</td>
</tr>
</tbody>
</table>

5.4.2. Input Variables

The analysis in phase II will be based on the same input variables, as in phase I (see Table 5.4) with the addition of five new variables representing the cultural characteristics of respondents along the five dimensions of culture (Hofstede, 1980; 1991). These are: Power_Distance, Individualism, Masculinity, Uncertainty_Avoidance and Long_Term_Orientation. The means and standard deviations of the variables on which the analysis in phase II is based are summarized in Table 5.15.

Table 5.15. Phase II – Input Variables

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power_Distance</td>
<td>-0.86</td>
<td>0.96</td>
</tr>
<tr>
<td>Individualism</td>
<td>-0.27</td>
<td>0.90</td>
</tr>
<tr>
<td>Masculinity</td>
<td>-0.88</td>
<td>0.87</td>
</tr>
<tr>
<td>Uncertainty_Avoidance</td>
<td>0.70</td>
<td>0.73</td>
</tr>
<tr>
<td>Long_Term_Orientation</td>
<td>0.07</td>
<td>0.71</td>
</tr>
<tr>
<td><strong>Customer_Satisfaction</strong></td>
<td><strong>7.21</strong></td>
<td><strong>1.83</strong></td>
</tr>
<tr>
<td>Expectations_Overall</td>
<td><strong>6.40</strong></td>
<td><strong>0.53</strong></td>
</tr>
<tr>
<td>Expectations_Tangibles</td>
<td>5.66</td>
<td>1.06</td>
</tr>
<tr>
<td>Expectations_Non-Tangibles</td>
<td>6.54</td>
<td>0.56</td>
</tr>
<tr>
<td>Expectations_Reliability</td>
<td>6.69</td>
<td>0.57</td>
</tr>
<tr>
<td>Expectations_Responsiveness</td>
<td>6.60</td>
<td>0.63</td>
</tr>
</tbody>
</table>
Table 5.15. Phase II – Input Variables

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectations_Assurance</td>
<td>6.57</td>
<td>0.63</td>
</tr>
<tr>
<td>Expectations_Empathy</td>
<td>6.23</td>
<td>0.80</td>
</tr>
<tr>
<td><strong>Perceptions_Overall</strong></td>
<td><strong>5.43</strong></td>
<td><strong>1.11</strong></td>
</tr>
<tr>
<td>Perceptions_Tangibles</td>
<td>5.37</td>
<td>1.09</td>
</tr>
<tr>
<td>Perceptions_Non-Tangibles</td>
<td>5.45</td>
<td>1.18</td>
</tr>
<tr>
<td>Perceptions_Reliability</td>
<td>5.53</td>
<td>1.23</td>
</tr>
<tr>
<td>Perceptions_Responsiveness</td>
<td>5.61</td>
<td>1.29</td>
</tr>
<tr>
<td>Perceptions_Assurance</td>
<td>5.58</td>
<td>1.26</td>
</tr>
<tr>
<td>Perceptions_Empathy</td>
<td>5.08</td>
<td>1.37</td>
</tr>
</tbody>
</table>

| Quality_Overall       | -0.96 | 1.07          |
| Tangibles             | -0.28 | 1.27          |
| Non-Tangibles         | -1.09 | 1.16          |
| Reliability           | -1.17 | 1.24          |
| Responsiveness        | -0.99 | 1.31          |
| Assurance             | -0.99 | 1.28          |
| Empathy               | -1.15 | 1.36          |

5.4.2.1. Input Variables in Relation with Service Failures and Service Recovery Records of Insurers

In line with respondents of phase I, customers of phase II, who had no problems with their insurers in the past, gave higher satisfaction and service quality scores compared to customers who had problems with their insurers. As in phase I, service recovery also repaired the damage as customers who had their problems resolved to their favour recovered both their satisfaction levels and service quality perceptions (Table 5.16).

As in phase I, the type of problem did not seem to significantly affect either customer satisfaction or service quality perceptions.
Table 5.16. Phase II – Input Variables in Relation with Service Failures and Service Recovery Records of Insurers

<table>
<thead>
<tr>
<th>Service Failure</th>
<th>Service Failure</th>
<th>Service Failure</th>
<th>Service Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>not Experienced</td>
<td>Experienced</td>
<td>Recovered</td>
<td>not Recovered</td>
</tr>
<tr>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Mean</td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Customer_Satisfaction</td>
<td>7.62</td>
<td>1.52</td>
<td>6.32</td>
</tr>
<tr>
<td>Expectations_Overall</td>
<td>6.42</td>
<td>0.49</td>
<td>6.32</td>
</tr>
<tr>
<td>Expectations_Tangibles</td>
<td>5.63</td>
<td>1.10</td>
<td>5.74</td>
</tr>
<tr>
<td>Expectations_Non-Tangibles</td>
<td>6.57</td>
<td>0.49</td>
<td>6.44</td>
</tr>
<tr>
<td>Expectations_Reliability</td>
<td>6.72</td>
<td>0.50</td>
<td>6.59</td>
</tr>
<tr>
<td>Expectations_Responsiveness</td>
<td>6.62</td>
<td>0.56</td>
<td>6.51</td>
</tr>
<tr>
<td>Expectations_Assurance</td>
<td>6.59</td>
<td>0.57</td>
<td>6.50</td>
</tr>
<tr>
<td>Expectations_Empathy</td>
<td>6.27</td>
<td>0.75</td>
<td>6.07</td>
</tr>
<tr>
<td>Perceptions_Overall</td>
<td>5.60</td>
<td>0.94</td>
<td>4.81</td>
</tr>
<tr>
<td>Perceptions_Tangibles</td>
<td>5.43</td>
<td>1.01</td>
<td>5.16</td>
</tr>
<tr>
<td>Perceptions_Non-Tangibles</td>
<td>5.64</td>
<td>0.99</td>
<td>4.75</td>
</tr>
<tr>
<td>Perceptions_Reliability</td>
<td>5.72</td>
<td>1.02</td>
<td>4.81</td>
</tr>
<tr>
<td>Perceptions_Responsiveness</td>
<td>5.80</td>
<td>1.08</td>
<td>4.90</td>
</tr>
<tr>
<td>Perceptions_Assurance</td>
<td>5.78</td>
<td>1.05</td>
<td>4.85</td>
</tr>
<tr>
<td>Perceptions_Empathy</td>
<td>5.25</td>
<td>1.28</td>
<td>4.44</td>
</tr>
<tr>
<td>Quality_Overall</td>
<td>-0.82</td>
<td>0.91</td>
<td>-1.51</td>
</tr>
<tr>
<td>Tangibles</td>
<td>-0.20</td>
<td>1.22</td>
<td>-0.57</td>
</tr>
<tr>
<td>Non-Tangibles</td>
<td>-0.93</td>
<td>0.97</td>
<td>-1.69</td>
</tr>
<tr>
<td>Reliability</td>
<td>-1.00</td>
<td>1.06</td>
<td>-1.78</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>-0.82</td>
<td>1.08</td>
<td>-1.61</td>
</tr>
<tr>
<td>Assurance</td>
<td>-0.81</td>
<td>1.06</td>
<td>-1.65</td>
</tr>
<tr>
<td>Empathy</td>
<td>-1.02</td>
<td>1.26</td>
<td>-1.63</td>
</tr>
</tbody>
</table>

5.4.2.2. Sentimental and Behavioural Loyalty

The majority of phase II customers (78.6%) were prepared to get engaged in favourable, for their insurers and their services, word-of-mouth communication. However, although willing to do so they were not equally prepared to buy additional policies from the same insurer. The majority of customers (68.25%) would search the market for the best deal before buying an additional insurance policy, 27% would buy from the same insurer and 4.8% would definitely buy additional insurance from some other insurer.
5.4.2.3. Sentimental and Behavioural Loyalty in relation to Service Failures and Service Recovery Records of Insurers

Phase II customers who reported problems with their insurers were not so willing to get engaged in positive word-of-mouth communication. 54% of such customers were willing to do so as compared with customers who did not report problems who were very much in favour of their insurers and willing to recommend them to others (90.90%). As was the case with perceptions of quality and customer satisfaction, recovery efforts partially repaired the damage. Customers who had problems which were resolved to their satisfaction, tended to partially restore their bonds with their insurers and 63.60% of them were willing to get engaged in positive word-of-mouth communication to their favour. On the other hand, only 16.70% of customers who did not have their problems resolved were willing to do the same.

In terms of repurchasing intentions, only 18.50% of customers with problems in the past were willing to buy again from the same insurer compared with 29.30% of customers, who reported no such problems. However, in both cases the majority of customers (almost 70%) were prepared to search the market before buying a new policy. Recovery seemed to partially restore the damage once again, since 24% of customers who had their problems resolved regained their confidence in their insurers and were prepared to buy again from them. On the other hand only 12% of customers with unresolved problems were prepared to do so.

5.5. Data Analysis

The analysis in phase II was conducted in three stages.

Stage 1 Examined the replicability of the GIQUAL scale on phase II data.

Stage 2 Dealt with replicating the model linking the dimensions of service quality, customer satisfaction and the dimensions of loyalty that was built and tested in phase I of the study.

Stage 3 Involved the relationships between the dimensions of culture and service quality/customer satisfaction.
5.5.1. Stage 1 of the Analysis

Stage 1 of the analysis dealt with the examination of the replicability of the GIQUAL scale. The analysis was based on the twenty-five variables that represent quality (Q_i) across the items of GIQUAL and included the examination of a) the factor structure, b) the internal consistency and c) the predictive validity of the scale.

5.5.1.1. Examination of the Factor Structure

The SPSS 13.0 for Windows factor module was utilized for the examination of the factor structure of GIQUAL on data collected in phase II of the study. Before the analysis data was appropriately screened.

5.5.1.2. Data Screening

As in phase I the screening procedure involved the examination of the data set for Sample Size, Missing Data, Normality, Linearity, Multivariate Outliers, Multicollinearity, Singularity and Factorability of the Correlation Matrix (see section 5.3.1.1).

Sample Size and Missing Data

The sample size (n=252) was considered suitable for the analysis (Comrey and Lee, 1992). On the grounds of strong factor loadings the sample size could be proven to be even more so (Guadagnoli and Velicer, 1988). Interviewers were specifically instructed to not accept partially filled questionnaires; hence, the data set contained no missing data.

Normality

The twenty-five Q_i variables were examined for normality by skewness and kurtosis (Tabachnick and Fidell, 2001). A number of variables presented significantly negative skewness (p < 0.001, one tailed) and/or significantly positive kurtosis (p < .001, one tailed) and hence these variables could not be considered as normally distributed. However, on the same reasoning as in phase I, it was decided that no variables should be transformed or deleted.

Linearity

Non-linearity was examined by scatterplot analysis limited to certain variables presenting the worst relationships between them (as suggested by Tabachnick and Fidell...
The scatterplot between the variables with most positive and the most negative skewness ($Q_2$ and $Q_{16}$ respectively) is presented in Figure 5.5. It is clear that no relationship between the two variables can be inferred by the shape of this scatterplot.

![Figure 5.5. Scatterplot between variables $Q_2$ and $Q_{16}$](image)

**Multivariate outliers**

Multivariate outliers were detected by the use of Leverage ($h_{ii}$) (Tabachnick and Fidell, 2001). For $\alpha < 0.001$ with 25 degrees of freedom, the critical value of $\chi^2$ is 52.62 and the corresponding critical value of $h_{ii}$, for $n=252$, is 0.214. With this criterion twenty two cases were identified as multivariate outliers and excluded, leaving the sample with two hundred and thirty cases. Outliers were further sought among the remaining cases, with critical value of $h_{ii} = 0.234$. Fourteen more cases were identified and excluded, finally leaving the sample with two hundred sixteen cases. Six variables ($Q_1$, $Q_{10}$, $Q_{13}$, $Q_{14}$, $Q_{16}$ and $Q_{23}$) were identified as causing multivariate outliers.
Multicollinearity and Singularity

Multicollinearity and/or Singularity were no threats for this data set as the largest SMC among variables was not near 1 and the criteria for Multicollinearity suggested by Belsey et al. (1980) were not met.

Factorability of the Correlation Matrix (R).

Because 260 out of the 300 possible bivariate correlations in the correlation matrix were in excess of 0.30, Factor Analysis was appropriate for analyzing this data set (Tabachnick and Fidell, 2001).

Further, Bartlett’s (1954) test of sphericity was significant (p=0.000) and the measure of sampling adequacy (Kaiser, 1970; Kaiser and Rise, 1974) was 0.944 (very close to 1), both indicating that the data was appropriate for Factor Analysis.

5.5.1.3. Factor Analysis

As in phase I (see section 5.3.1.2), the Maximum Likelihood factor extraction method (Lawley and Maxwell, 1963) was employed for factor analyzing the data while the criterion for meaningful loading was set to 0.40 and the oblimin rotation method was selected to allow for possible correlations between factors.

The Initial Eigenvalues > 1 criterion (Bryman and Cramer, 2001) suggested a four-factor solution which explained almost 62% of the variance. However, all loadings in Factor 4 were below the criterion for meaningful loading, while Factor 3 explained only 3.9% of variance. On the other hand, the Scree Plot (Catell, 1966), shown in Figure 5.6, suggested a two-factor solution.
On these grounds, a two-factor solution seemed adequate for the specific data set. As in phase I, Factor 1 (non-tangibles) consisting of items Q6 to Q26 was the primary factor while Factor 2 (tangibles) consisting of items Q1 to Q4 was the secondary factor. The solution explained 58.61% of the variance of which 51.9% by non-tangibles and 6.71% by tangibles. The correlation coefficient between the two dimensions (0.44) was lower than in phase I.

5.5.1.4. Internal Consistency and Reliability of the Scale

The factor plot presented in Figure 5.7 reveals a simple structure (Thurstone, 1974) with both factors presenting a number of strong loadings (Comrey and Lee, 1992) and only one factor correlating highly with each item. Sixteen out of the twenty-one loadings of the factor non-tangibles items exceeded 0.71 and were considered excellent. In tangibles, three of the loadings were excellent and one was good (Comrey and Lee, 1992). Strong loadings further enhanced the adequacy of the sample.
The alpha coefficients (Cronbach, 1951) were used to assess the internal consistency of the scale. The alpha values were 0.96 for non-tangibles and 0.80 for tangibles. The Total-scale reliability coefficient was 0.95. All three coefficients re-confirm the internal consistency of the scale that was shown in phase I of the study and hence the scale’s reliability.

5.5.1.5. Assessing the Validity of the Scale

To assess the predictive validity of the scale, Customer_Satisfaction was regressed against the variables Tangibles and Non-Tangibles expressing the average quality scores of the two dimensions of GIQUAL.

Data Screening

Before the analysis, the data set was screened for multicollinearity, singularity, multivariate outliers, normality, linearity and homoscedasticity. Eight cases were identified as multivariate outliers, on the basis of leverage exceeding the critical value, and excluded. Multicollinearity and singularity did not present problems to the analysis, as the correlation coefficient between the two independent variables (Tangibles and Non-Tangibles) was 0.47 and the Tolerance value, in the Collinearity Statistics part of the Coefficients section of the SPSS output, was high enough (0.78) for both IVs. Linearity and homoscedasticity were also considered as practically met (Pallant, 2001)
5.5.1.6. The Regression Model

The regression coefficients of the estimated model are presented in Table 5.17. The value $R^2 = 0.47$ means that the model explained a significant proportion of the variance in the dependent variable. The coefficient of Tangibles was non-significant in confirmation of the relevant finding in phase I.

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
<td>72.775</td>
<td>0.000</td>
</tr>
<tr>
<td>Tangibles</td>
<td>-0.059</td>
<td>-0.043</td>
<td>-0.755</td>
<td>0.451</td>
</tr>
<tr>
<td>Non-Tangibles</td>
<td>1.113</td>
<td>0.702</td>
<td>12.386</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 5.17. Phase II – Regression Coefficients$^a$

Based on the aforementioned regression model the predictive validity of the scale is re-confirmed.

5.5.1.7. Conclusion

As a result of the analyses conducted in stage 1 of phase II of the study regarding the scale’s reliability, internal consistency, validity and stability, GIQUAL was re-confirmed as reliable, valid and stable and can be used to assess service quality levels in Greek insurance.

5.5.2. Stage 2 of the Analysis.

This stage involved the replication of the model that was built and tested in phase I, on the $n=252$ sample of phase II. The model that resulted from this analysis is shown in Figure 5.8. The same assumptions as in phase I were made about the variables involved. The variables Tangibles, Non-Tangibles and Customer_Satisfaction were defined as continuous while the variables Recommend and Intend were treated as categorised versions of Likert variables.
In terms of overall fit the model was satisfactorily reproduced, with the Satorra-Bentler Scaled Chi-Square statistic being 0.139 (p=0.99), the RMSEA being 0, indicating a prefect fit, and the Goodness of Fit Index being 0.956.

In terms of individual between-variables relationships, Tangibles and Non-Tangibles as IVs explained 45.20% ($R^2 = 0.452$) of the variance of Customer_Satisfaction against 55.40% in phase I. As expected the coefficient of Tangibles was non-significant (standardized value = -0.10, t-value = -0.18). However, this time the coefficient of Non-Tangibles appeared to be non-significant too (standardized value = 0.71, t-value = 0.49), although its value was not much lower than the corresponding value in phase I. The non-significance could be, to some extent, attributed to the much higher value of Standard Error (SE) (1.44 against 0.19 of phase I) which was partially a result of the smaller sample on which the model was tested in phase II.

As expected the path coefficient from Customer_Satisfaction to Recommend was significant (standardized coefficient = 0.71, t-value = 5.42). Customer_Satisfaction explained 51% ($R^2 = 0.51$) of the variance of Recommend. Customer_Satisfaction and Recommend, as IVs, explained 38.20% of the variance of Intend as DV. As in phase I, only the path coefficient from Recommend to Intend was significant (standardized coefficient = 0.48, t-value = 2.07) while the path coefficient from Customer_Satisfaction to Intend was not (standardized coefficient = 0.17, t-value = 0.78).

### 5.5.3. Stage 3 of the Analysis.

The relationships and models examined so far were of relatively limited ability to precisely identify how quality resources should be directed for the best possible results, because of the convergence of the theoretical dimensions reliability, responsiveness,
assurance and empathy into the aggregate dimension non-tangibles. According to Parasuraman et al. (1991), the convergence of dimensions does not mean that these do not exist but that the evaluations of customers across dimensions are very similar.

On the basis of the existing literature (see chapter 3 Section 10.3.1) culture was introduced to the analysis as an additional variable related to service quality and, hence, to customer satisfaction. Stage 3 of the analysis involved the examination of these relationships.

Although the typology of Hofstede (1980, 1991) regarding the dimensions of culture was adopted, the variable was not used in the aggregate for the Greek society but rather at the level of individuals. This was done under the logic expressed in the literature (see chapter 3 Section 10.4) that culture is not necessarily identified with nation and that groups of individuals may exist within national societies with diverging cultural characteristics. Such sub-cultures may not necessarily originate on ethnic differences, as it happens in multi-ethnic societies.

The relationships between culture and service quality/customer satisfaction were examined at this stage. In this respect, hypotheses were set and examined for all possible pairs of dimensions. Previous research had tested, in various service settings, a number of these hypotheses (e.g. Donthu and Yoo, 1998; Furrer et al., 2000), the validity of which was re-examined in the Greek insurance setting. Other hypotheses were based on the researcher’s own experience as an insurance agent and a member of the Greek society for many years.

The analysis followed a sequence of logical steps. First, the cultural profiles of respondents were specified. The distributions statistics were used to outline the overall cultural characteristics of the group of respondents. Second, Pearson’s correlation coefficients were used to test the hypotheses on the relationships between the dimensions of culture and the importance of service quality dimensions. The results enabled the ranking of service dimensions in terms of their importance to customers. Finally, the effect of the dimensions’ importance on the strength of their relationships with customer satisfaction was assessed.

A number of situational variables, related to Greek retail insurance, had to be taken into account for the analysis. These were: a) insurance is an infrequent service situation (no more than a couple of service interactions per year), b) service in Greek retail...
insurance is delivered mainly by female service employees (almost 90%), c) customers in Greek retail insurance, mostly not in very high income brackets or social positions, are weak in relation to service providers who, because of their expertise and skills, tend to exercise power over their customers (Donthu and Yoo, 1998; Furrer et al., 2000) and d) the dimension tangibles is unimportant in Greek retail insurance (Tsoukatos et al., 2004). The logic and results of the analysis that was conducted in this stage are discussed in the following sections.

5.5.3.1. Cultural Profile of the Group of Respondents

On the basis of the scores of Hofstede (1980, 1991), the Greek society is described as a society with a high score in power distance, a very low individualism score and a high masculinity score. In addition, it’s on top of the list regarding uncertainty avoidance (see chapter 3 Section 10.3.2). However, the distribution statistics of the respondents’ scores (Table 5.18) indicated that a group of individuals with very high uncertainty avoidance, low individualism, very low power distance, very low masculinity and positive long term orientation. The divergence regarding the dimensions power distance, masculinity and to a lesser extent individualism was evident. No judgment could be made for long term orientation since no such score is available for the Greek society as a whole.

<table>
<thead>
<tr>
<th>Table 5.18. Distribution Statistics of Cultural Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Skewness</td>
</tr>
</tbody>
</table>

5.5.3.2. Hypotheses

The complete set of Hypotheses that were laid down for all possible pairs of dimensions of culture and of service quality is discussed in this section.

Power distance (Power_Distance).

Two situational variables related with Greek retail insurance ought to be taken into account for testing hypotheses on the relationships between power distance and the dimensions of service quality. These were: a) that insurance is an infrequent service
situation and b) that customers in Greek insurance are weak in relation to insurance service providers.

Furrer et al. (2000) proposed that the exercise of power in service encounters depend on whether customers are (or consider themselves) powerful or weak in relation to service employees/agents. Mattila (1999) assumed that powerful customers in luxury hotels exercise power over weaker service employees. Donthu and Yoo (1998), on the contrary, suggested that in most services providers exercise power over their customers arising from expertise, professional knowledge, skills, equipment etc. Furrer et al. (2000) agreed with the assumption of Mattila (1999), given the service setting in which she conducted her study. However, they suggested that the assumption of Donthu and Yoo (1998) is more likely to be true in infrequent, rather than in frequent, service situations.

**Powerful customers** with a high score in power distance consider that they deserve extremely good treatment from weaker service employees/agents. Hence, they focus on reliability, responsiveness and empathy. However, such customers do not put emphasis on assurance. They don’t need to be assured by weaker service employees/agents (Mattila, 1999; Furrer et al., 2000).

**Weak customers**, on the other hand, with a high score in power distance view themselves as unimportant to service providers and do not expect an empathetic and responsive service. Such customers feel dependent on more powerful service providers and consider service providers’ work as beyond their grasp (Donthu and Yoo, 1998). Hence, these customers do not expect to be assured and are prepared to accept a relatively less reliable service from powerful service providers (Donthu and Yoo, 1998; Furrer et al., 2000).

Based on these arguments the following hypothesis is set for Greek retail insurance:

**H₁:** There are inverse relationships between Power Distance and the importance of Reliability, Responsiveness, Assurance and Empathy.

**Individualism/collectivism.**

Individualistic customers are less tolerant of poor service than collectivists (Furrer et al., 2000) and put emphasis on reliable and responsive service. Donthu and Yoo (1998), despite identifying self-confidence as a key characteristic of individualists, proposed a positive relationship between individualism and assurance. On the con-
trary, Furrer et al. (2000) suggested an inverse relationship between the two variables considering that self-confident individuals do not usually need assurance.

Donthu and Yoo (1998) proposed that individualists more than collectivists expect service employees to be empathetic. However, Furrer et al. (2000) suggested that this relationship is difficult to prove, as it might depend on the items measuring empathy. Instead, they suggested a weak negative relationship between individualism and empathy.

On the basis of the arguments of Boulding et al. (1993), individualists in a collectivist culture may think that they deserve a reliable, responsive, assuring and empathetic service but they accept that service delivery in collectivist cultures is bound to be tuned to satisfy a collectivist customer base. The culture in which this analysis was conducted can be characterised as collectivist both by the aggregate scores of Hofstede for the Greek society and by the statistics of Table 5.18. Therefore, the following hypothesis regarding the relationships between individualism and the dimensions of service quality in Greek retail insurance was set.

H₀: The relationships between Individualism and the importance of Reliability, Responsiveness, Assurance and Empathy are of no particular direction.

Masculinity/Femininity

The gender of service employees in Greek retail insurance was taken into account in setting hypotheses about the relationships between masculinity and the dimensions of service quality. Customers with a high score in masculinity expect male service employees to be more professional, and hence more reliable, responsive and assuring. On the other hand, they expect females to be more empathetic (Furrer et al., 2000). On these grounds, the following hypotheses are set regarding masculinity in industries with mostly female service employees:

H₁: There are inverse relationships between Masculinity and the importance of Reliability, Responsiveness and Assurance.

H₂: There is a positive relationship between Masculinity and the importance of Empathy.
Uncertainty Avoidance.

In infrequent service situations, customers’ feelings of uncertainty are intensified (Furrer et al., 2000). Because of this, customers with a high score in uncertainty avoidance put emphasis on reliability, responsiveness and assurance. Both Donthu and Yoo (1998) and Furrer et al. (2000) hypothesized a positive relationship between uncertainty avoidance and empathy. However, the former did not confirm this hypothesis. The researcher considers that empathy does not contribute towards decreasing or increasing uncertainty. Hence, the relationship between uncertainty avoidance and empathy will be of no particular direction. Consequently, the following hypotheses can be set regarding uncertainty avoidance.

Hd1: There are positive relationships between Uncertainty Avoidance and the importance of Reliability, Responsiveness and Assurance.

Hd2: The relationship between Uncertainty Avoidance and the importance of Empathy is of no specific direction.

Long Term Orientation

In service-encounters, Furrer et al. (2000) hypothesized an inverse relationship between long term orientation and the importance of assurance and positive relationships between long term orientation and the importance of reliability, responsiveness and empathy. However, they were not able to confirm the hypothesized relationships of long term orientation with responsiveness and empathy. Donthu and Yoo (1998) also proposed a positive relationship between long term orientation and the importance of responsiveness.

My position is that long-term oriented customers are prepared to find excuses when they accept a relatively poor service in order to keep the relationship with their service provider for which they care most. As long as the service is Reliable, they will not place much importance on responsiveness, assurance and empathy. On these grounds, I set the following hypotheses:

He1: There is a positive relationship between Long Term Orientation and the importance of Reliability.

He2: The relationships between Long Term Orientation and the importance of Responsiveness, Assurance and Empathy are of no specific direction.
**Relationships between the dimensions of culture and the importance of Tangibles.**

Furrer et al. (2000) found significant positive relationships between tangibles and power distance, individualism and masculinity and significant inverse relationships between tangibles and uncertainty avoidance and long term orientation. Donthu and Yoo (1998) also associated tangibles, as a means of reducing uncertainty, with high uncertainty avoidance.

However, because of the distinct characteristics of the Greek retail insurance (Tsoukatos, 2003), tangibles is an almost negligible parameter (Tsoukatos et al., 2004). Therefore, I set the following hypothesis regarding the relationships between the dimensions of culture and tangibles:

**Hf: The relationships between the dimensions of culture and the importance of Tangibles are of no specific direction.**

**5.5.3.3. Testing of Hypotheses**

Bivariate correlation was used for testing the hypotheses set for the relationships between the dimensions of culture and the importance of the dimensions of service quality. Correlation coefficients were computed between the variables Expectations_Tangibles, Expectations_Reliability, Expectations_Responsiveness, Expectations_Assurance and Expectations_Empathy, representing aggregate expectations scores across the dimensions Tangibles, reliability, responsiveness, assurance and empathy, and the variables Power_Distance, Individualism, Masculinity, Uncertainty_Avoidance and Long_Term_Orientation, representing the average scores of respondents across the dimensions of power distance, individualism, masculinity, uncertainty avoidance and long term orientation of culture (Table 5.19). Twenty-three out of the twenty-five hypothesized relationships were confirmed while the remaining two were directionally supported.
Chapter 5. Data Analysis

Table 5.19. Table of Correlations

<table>
<thead>
<tr>
<th></th>
<th>Power Distance</th>
<th>Individualism</th>
<th>Masculinity</th>
<th>Uncertainty Avoidance</th>
<th>Long Term Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectations_Tangibles</td>
<td>.062</td>
<td>.023</td>
<td>.013</td>
<td>-.029</td>
<td>-.045</td>
</tr>
<tr>
<td>Expectations_Reliability</td>
<td>-.214(**)</td>
<td>-.002</td>
<td>-.200(**)</td>
<td>.357(**)</td>
<td>.131(*)</td>
</tr>
<tr>
<td>Expectations_Responsiveness</td>
<td>-.207(**)</td>
<td>-.018</td>
<td>-.228(**)</td>
<td>.319(**)</td>
<td>.064</td>
</tr>
<tr>
<td>Expectations_Assurance</td>
<td>-.124(*)</td>
<td>-.063</td>
<td>-.161(**)</td>
<td>.290(**)</td>
<td>.016</td>
</tr>
<tr>
<td>Expectations_Empathy</td>
<td>-.050</td>
<td>.097</td>
<td>-.074</td>
<td>.039</td>
<td>.010</td>
</tr>
</tbody>
</table>

* Correlation significant at the 0.05 level (1-tailed).
** Correlation significant at the 0.01 level (1-tailed).

**Power Distance.**

Weak customers with a high power distance score consider themselves as unimportant to service providers. Such customers are prepared to tolerate relative poor service. These hypotheses were supported by negative correlations between power distance and reliability (-0.214, p<0.01), responsiveness (-0.207, p<0.01) and assurance (-0.124, p<0.05). However, the hypothesis of an inverse relationship between power distance and empathy was only directionally supported by a non-significant negative correlation (-0.05).

**Individualism.**

In a collectivist culture, service delivery is tuned to satisfy the needs of a collectivist customer base. Customers are aware that a reliable, responsive, assuring and empathetic service may not be delivered. In such cultures, the relationships between individualism and the dimensions of service quality are expected to have no specific direction. This hypothesis was supported by non-significant correlations between individualism and reliability, responsiveness, assurance and empathy.

**Masculinity.**

Inverse relationships between masculinity and reliability, responsiveness and assurance, and a positive relationship between masculinity and empathy in industries with mostly female service employees are anticipated. These hypotheses were supported by significant negative correlations between masculinity and reliability (-0.200, p<0.001), responsiveness (-0.228, p=0.000) and assurance (-0.161, p<0.005). However, the hypothesis on the relationship between masculinity
and empathy was not even directionally supported as the corresponding correlation was negative (-0.074).

**Uncertainty Avoidance.**

In infrequent service situations, customers with a high uncertainty avoidance put emphasis on reliability, responsiveness and assurance. Because empathy does not contribute towards decreasing or increasing uncertainty the relationship between uncertainty avoidance and empathy is expected to have no specific direction. These hypotheses were supported by significant positive correlations between uncertainty avoidance and reliability (0.357, p=0.000), responsiveness (0.319, p=0.000) and assurance (0.290, p=0.000) and a non-significant correlation between uncertainty avoidance and empathy (0.039).

**Long Term Orientation.**

Long-term oriented customers are concerned with preserving relationships with their service providers and find excuses when accepting relatively poor service. As long as the service is reliable such customers are indifferent towards responsiveness, assurance and empathy. These hypotheses were supported by a significant positive correlation between long term orientation and reliability (0.131, p<0.005) and non-significant correlations between long term orientation and responsiveness (0.064), assurance (0.016) and empathy (0.010).

**Tangibles.**

The hypothesis that this particular dimension is of no importance to customers was supported by insignificant correlations between the dimensions of culture and the importance of tangibles.

**5.5.3.4.Importance of Service Quality Dimensions.**

The aforementioned relationships were now used as criteria for defining the overall importance of the five service quality dimensions. The following factors were taken into account in this respect: a) the cultural characteristics of respondents, indicated in Table 5.18, b) the relationships between the dimensions of culture and the importance of service quality dimensions, inferred from the correlations in Table 5.19 and c) the characteristics of Greek retail insurance, infrequent service situation, weak customers,
mostly female service employees and tangibles of no importance. On the basis of the above the following arguments were put forward:

**Reliability.** a) Reliability is important to weak customers with low scores in power distance because they do not tolerate poor service, b) customers with low masculinity scores do not associate female employees with poor service and, hence, reliability is important to such customers, c) in infrequent services, a high score in uncertainty avoidance is associated with putting emphasis on reliability and d) reliability is important for Long Term Oriented customers. The combination of these arguments with the cultural scores in Table 5.18 indicates that the importance of reliability is associated with four dimensions of culture, power distance, masculinity, uncertainty avoidance and long term orientation.

**Responsiveness** and **Assurance.** Following the same logic the importance of responsiveness and assurance is associated with three dimensions of culture, power distance, masculinity and uncertainty avoidance.

**Empathy.** No significant relationships have been found between the dimensions of culture and empathy.

**Tangibles.** The relationships between the dimension of culture and the importance of tangibles were also non-significant. In addition, tangibles is negligible in Greek insurance because of its specific characteristics (Tsoukatos et al., 2004).

On the basis of these observations the following hypothesis was set:

**H₃:** Reliability is the most important dimension of service quality, followed by Responsiveness and Assurance sharing the second and third positions. Empathy is in the fourth position and Tangibles is in the least important.

To assess the truth of this hypothesis the average expectations scores, also indicating the importance of dimensions, of reliability, responsiveness, assurance, empathy and tangibles, being 6.69, 6.59, 6.57, 6.23 and 5.65 respectively, were used.

The hypothesis was supported by a series of paired samples t-tests (Table 5.20) indicating that: a) the reliability score was statistically higher than the scores of all other dimensions (p=0.000), b) responsiveness and assurance shared the second and third positions with statistically equal scores (p=0.367), c) empathy was in the fourth position with a lower score than responsiveness (p=0.000) and assurance (p=0.000) and d)
tangibles followed in the fifth position with a significantly lower score than empathy \((p=0.000)\).

<table>
<thead>
<tr>
<th>Table 5.20. Paired Samples t-tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectations Tangibles</td>
</tr>
<tr>
<td>Expectations Reliability</td>
</tr>
<tr>
<td>Expectations Responsiveness</td>
</tr>
<tr>
<td>Expectations Assurance</td>
</tr>
</tbody>
</table>

* Significant at the 0.001 level (2 tails)

5.5.3.5. Relations between the dimensions of service quality and Customer Satisfaction.

The idea that perceived service quality and customer satisfaction are closely related is implicit in the literature (Shemwell et al., 1998). Logically, this can be extended to the relationships between individual service quality dimensions and customer satisfaction. In this respect the following hypothesis was set:

**Hₜ**: The strength of the relationships between the dimensions of service quality and customer satisfaction is consistent with the importance of these dimensions to customers.

The hypothesis was tested in a two-step process. First, the correlation coefficients between quality perception scores across the dimensions of service and customer satisfaction were determined (Table 5.21). As expected, the correlation between customer satisfaction and reliability was the highest \((0.67)\). It was followed by the correlations with responsiveness \((0.64)\), assurance \((0.62)\), empathy \((0.56)\) and tangibles \((0.25)\). All were significant at the 0.01 level.

<table>
<thead>
<tr>
<th>Table 5.21. Correlation Coefficients between the dimensions of Service Quality and Customer Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Satisfaction</td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>0.25</strong></td>
</tr>
</tbody>
</table>

** significant at the 0.01 level

Second, the significance of the differences between correlations was examined. A test, described by Blalock (1972), was employed in this respect. It examines the differences
between correlations on a special t-statistic \((df=n-3)\) calculated by the formula
\[
t = (r_{xy} - r_{z})\sqrt{\frac{(n-3)(1+r_{xz})}{2(1-r_{xy}^2 - r_{xz}^2 + 2r_{xy}r_{xz}r_{z})}}
\]
\((x, y\) are variables from the same sample for which the difference of their correlations with variable \(z\) is examined, and \(n\) is the sample size).

The t-statistics \((df=249)\) (Table 5.22), revealed that the correlation between tangibles and customer satisfaction was weaker than the correlations between the latter and all other dimensions. However, the differences between the correlations of reliability, responsiveness, assurance and empathy were not significant.

Hence, hypothesis \(H_h\) was only partially supported as the correlation coefficients between reliability, responsiveness, assurance and empathy and customer satisfaction offered only directional support.

<table>
<thead>
<tr>
<th></th>
<th>Tangibles</th>
<th>Reliability</th>
<th>Responsiveness</th>
<th>Assurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>-6.19*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responsiveness</td>
<td>-5.84*</td>
<td>0.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assurance</td>
<td>-5.37*</td>
<td>0.56</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>-4.30*</td>
<td>1.44</td>
<td>1.12</td>
<td>0.83</td>
</tr>
</tbody>
</table>

* Significant at the 0.001 level
6. DISCUSSION OF RESULTS

6.1. Introduction

This study has produced a wealth of important results that will be discussed in some detail in this chapter, which is divided into three sections. The first section deals with the GIQUAL scale, its applicability and replicability in Greek insurance and its differences to the generic SERVQUAL metric (Parasuraman et al., 1988) in terms of its battery of attributes and dimensions. Section two discusses the model that was constructed to test the links between the variables service quality, customer satisfaction and customer loyalty. The chapter concludes with the discussion, in section three, of the links between culture and service quality/customer satisfaction that were revealed in the course of this study.

The GIQUAL scale and the model were constructed and initially tested in phase I of the study. The testing process was extended to phase II when both the metric and the model were subjected to further testing that reaffirmed their reliability, validity and stability.

The links between culture and service quality/customer satisfaction were studied in phase II of the study. However, part of the analysis involved referring back to results of phase I for comparison. In this sense all three sections of this chapter discuss the two phases of this study simultaneously.

6.2. The GIQUAL Scale

The GIQUAL scale was built and tested in phase I of the study, on data from Sample G consisting of customers of various insurance companies other than the ones that contributed to this study. Subsequently, through a test-retest process (Vavra, 1997), the scale was further examined across a number of independent samples. Three of these samples were taken concurrently in phase I (2004) and one taken with a time span of almost two years in phase II (2006). As a result of the testing process the metric was proven to adequately measure service quality in Greek insurance. It was also found valid, reliable and stable. However, the scale’s dimensionality limited its worth for benchmarking and service quality improvement.
6.2.1. The GIQUAL Battery of Items

On the grounds that the generic SERVQUAL metric (Parasuraman et al., 1988) consisted of twenty-two items, a mistaken argument that SERVQUAL type batteries should, without exception, be constrained to this specific number of items has frequently appeared in the literature. However, empirical and theoretical support exists for the counter argument. In many empirical studies SERVQUAL type metrics contained different numbers of items, each time appropriately adapted to better capture the service attributes applying to the service setting under consideration (e.g. Yavas, 1998; Newman, 2001; Tan and Kek, 2004). In terms of theoretical support, the original creators of the SERVQUAL metric (Parasuraman et al., 1988) proposed that, it should be accordingly adapted before being used for measuring service quality in different service settings. They further proposed that SERVQUAL is a foundation on which researchers should build their own scales depending on the needs of various studies (Parasuraman et al., 1988).

The GIQUAL battery initially consisted of items emanating from two main sources: a) the generic SERVQUAL items and b) industry specific items. All twenty-two of the generic SERVQUAL items were included in GIQUAL after being appropriately reworded, as a result of a piloting process, to be readily understood when translated in the Greek language. Four items that were meant to capture specific quality issues identified in Greek insurance were added to complete a list of twenty-six items in total. However, as a result of a purification process (see chapter 4 section 4.7.4) one of the industry specific items had to be removed as it did not fit to the scale, finally leaving GIQUAL with twenty-five items.

There is no point in deliberating on the twenty-two SERVQUAL items at this point. These have been extensively discussed in the literature during the almost three decades since the creation of the scale. The rewording of items has also been adequately discussed in chapter 4 section 4.7.3 of this report and is not further discussed here. The following paragraphs will be devoted to the discussion of the four industry specific items that were initially added to the SERVQUAL battery to create GIQUAL (see chapter 4, section 4.7.1), i.e. items $Q_5$-insurance products’ price, $Q_6$ - offer qual-
ity products and services, $Q_8$ - contracts with clear terms and $Q_9$ - settling claims with no unnecessary delays.

**6.2.1.1. Item Q5-Insurance products’ price.**

Price was initially included in the GIQUAL scale on the grounds that retail insurance products and services have much in common with mass consumption products. Hence, price ought to be examined as potentially related to perceived service quality as suggested by some researchers (e.g. Bonner and Nelson, 1985; Parasuraman et al., 1985). However, in the course of the purification of the metric, price had to be removed as it did not fit to any one of the five theoretical dimensions; tangibles, reliability, responsiveness, assurance and empathy. The exclusion of price can be considered as offering support to the argument that no relationship between price and perceived quality exists (e.g. Zeithaml, 1987; Anderson et al., 1994).

A closer look into pricing in Greek insurance justified fully the exclusion of the specific item from the GIQUAL battery. In the life sector, price is not a consideration. Life insurance policies, in most cases include numerous supplements, mainly referring to various forms of disability insurance, and insurers tend to continuously introduce highly differentiated programs. In addition, a number of determinants also affect the pricing of a policy e.g. age, gender, health condition etc. Hence, price comparisons are in most cases not possible, as it is rare to find two identical life insurance contracts.

Competitive pricing in Greek retail insurance is mostly associated with “motor vehicle liability”, accounting for over 50% of the property and liability sector. The industry has witnessed extremely aggressive down-pricing practices by certain insurers since 1997 when pricing regulation came to an end. As a result the loss ratio for this particular sector as a whole reached an outrageous 100.7% in 2002 (ICAP, 2003b) escalating, for some insurers, to well over 125%. As a consequence, a number of insurance companies were recently closed down by the authorities because they had become financially vulnerable and were not in a position to make up and maintain their statutory technical and solvency reserves.

Customers who initially benefited by competitive pricing, soon discovered that buying insurance on the basis of low price alone was equivalent to being uninsured as a result of unpaid claims. In light of these experiences customers learned to not associate price with quality and, in fact, to be wary of cheap insurance.
As already explained (see chapter 4 section 4.7.2), the true meaning of this item, in Greek, is “offer suitable (appropriately designed) products and services”, i.e. products and services that adequately suit the insurance needs of customers.

In the life sector, major insurers are continuously introducing flexible, differentiated products and services suitable for all possible insurance needs. However, often the associated pricing makes such products and services accessible only to customers in the higher income brackets (ICAP, 2003a). In the property and liability sector, particularly in sub-sectors where insurance is mandatory, the major concern of certain insurers is to offer cheap products and services. This practice is in most cases associated with very low quality standards. Customers often feel not served or not covered sufficiently, or discover that their policies do not correspond to what they paid for in the first place. Hence the ability of insurers to introduce insurance schemes suitable for their customers has become a major quality challenge in Greek insurance.

Issuing contracts and policies with clear unambiguous terms is a fundamental quality challenge for Greek insurance. Insurance contracts are legal documents describing the rights and obligations of the signatories that arise from insurance policies. As such, insurance contracts regulate the relations of the two parties (insurer-insured) for a relatively long time.

The particular complexity of the Greek legal system and the elaboration of the formulation of the legal terms are combined with limited customers’ understanding of insurance to fuel suspicion and mistrust between insurers and customers. Suspicion and mistrust are further fuelled by insurers’ failure to simplify underwriting and facilitate customers understanding of insurance. Moreover, the industry has been accused of extensive use of “small-print” in insurance contracts and this does not help to reduce customers’ suspicion.

Settling claims with no unnecessary delays is a prime quality consideration in insurance and Greek insurance is no exception in this respect. Claim settlement is at the
heart of the insurance mechanism and when abused, the mechanism ceases to function. Prompt claims’ settling sends messages about insurer’s financial stability and commitment to promises.

However, in numerous cases, instead of immediately providing indemnity, certain Greek insurers prefer to initiate legal conflicts that can go on for years, to force their adversaries to accept their claims to be partially settled in order to avoid legal complications. Hence insurers who provide prompt indemnity are perceived to offer quality services and vice versa.

### 6.2.2. Reliability and Validity of the Scale

Following its initial creation, based on sample G, the GIQUAL metric was re-applied on samples A, B and C consisting of customers of the insurance companies that participated in the study. All four samples were taken concurrently in phase I. The scale was tested for internal consistency and validity on each and every one of these samples and was found reliable and valid (see chapter 5, sections 5.3.1.1 to 5.3.2.5).

The metric was re-tested on the sample that was taken in phase II of the study. It was once again found reliable and valid (see chapter 5, sections 5.5.1.1 to 5.5.1.6). It must be noted that this sample was taken two years later than samples A, B, C and G. Hence the scale was proven, reliable and valid through time as well as across samples. The stability of the scale can be discussed under two different perspectives: a) the evolution of service quality perceptions and b) the appropriateness of the sampling procedures in both phases of the study.

Service quality is continuously evolving. Social changes and increased competition positively affect service delivery. Improved service delivery increases service expectations which, in turn, affect service quality perceptions. This continuous process is often manifested in terms of changes in service quality assessment. However, the stability of the GIQUAL metric in the two phases of this study reveals that no significant changes in service quality assessment are evident between 2004 and 2006.

In terms of appropriateness of sampling procedure the following arguments can be made. Vavra (1997) suggests that for an instrument to be valid it must be free of systematic bias that can be introduced by poor sampling, faulty wording, poor administration of the interviewing process etc. The consistent validity of the GIQUAL scale, not only across samples taken concurrently but also through time, indicates that despite
employing convenience samples in both phases of the study, no systematic bias was introduced by the sampling and interviewing procedures.

Vavra (1997) also suggests that reliability means “freedom from random error” that can be introduced by ambiguous items or poor sampling procedures. The consistently high reliabilities of the scale wherever it was applied in both phases of the study gave assurance that: a) the piloting process of the instrument before being used for data collection was adequate and b) the sampling process did not allow for unknowledgeable or inexperienced customers to be included in the samples on which phases I and II of the study were conducted.

6.2.3. Number of Dimensions

The creators of SERVQUAL proposed that the attributes of service quality are captured through five distinct dimensions i.e. tangibles, reliability, responsiveness, assurance and empathy (Parasuraman et al., 1988). However, in many subsequent applications of the metric or customized versions of it, in various service settings around the globe, this dimensionality was not always confirmed. In fact the instability of the scale regarding the number and/or the type of dimensions constitutes a significant basis of criticism towards its stability and reliability (Buttle, 1996). The different numbers and types of dimensions have been attributed to: the country of application (Ford et al., 1993), the service industry under examination (Asubonteng et al., 1996), culture (Imrie et al., 2002; Sureshchander et al., 2002), the level of market development (Angur et al., 1999; Wang et al., 2003) etc.

In this study, service quality had consistently two dimensions in all applications of GIQUAL in different samples taken either concurrently or through time. In all cases the primary dimension (non-tangibles) consisted of all items that were supposed to form the theoretical dimensions reliability, responsiveness, assurance and empathy (the SERVQUAL dimensions that capture the intangible elements of service). Non-tangibles always explained roughly 10 times more variance than the secondary dimension (tangibles) which corresponded to the homonymic dimension of SERVQUAL (see chapter 5 sections 3.1.2, 3.2.1 and 5.1.3).

The relative unimportance of the dimension tangibles can be attributed to either one or both of the following reasons. First, insurance is placed towards the “intangible dominant” pole of the financial services continuum (Figure 6.1). Second, the unique, in
Europe, structure of Greek retail insurance that relies almost entirely on the agency system (Tsoukatos, 2003). Because of this specific structure Greek insurance customers rarely (some times never) have to visit the facilities of insurers and/or assess their equipment as almost all insurer-customer contacts happen before the sale between customers and agents, mostly in customers’ work places or even homes, and after the sale between customers and service employees mostly by telephone, mail or some other means of distant communication. This mode of contact is intensified in peripheral insurance markets, as are the markets from which this study drew evidence in both its phases. At the same time, the importance of advertising and/or promotional material is relatively insignificant for customers. In financial services in general and in insurance in particular, where decisions are of high stake, customers rely much more on word-of-mouth than on advertising or company promotional efforts (O’Mitchell, 2005).

The relative unimportance of the dimension tangibles was also confirmed in all regressions that were conducted in the course of examining the predictive validity of the GIQUAL scale on various samples. In all cases the regression coefficients of the variable Tangibles (reflecting the dimension tangibles) were statistically insignificant. As the dependent variable in these regressions was Customer Satisfaction, (reflecting customer satisfaction levels) the insignificance of these regression coefficients means that the satisfaction of customers depends only on the intangible elements of service (see chapter 5 sections 3.2.3 and 5.1.6).
6.2.4. Convergence of Factors

In factor analysis, latent variables (factors) are shaped by variables (items) that are highly correlated with the specific factor but relatively uncorrelated with others. In orthogonal rotations, the factor loadings are correlation coefficients between observed (items) and latent variables. In oblique rotations, factors are shaped by items that explain, as independent variables, a significant percentage of the variance of the factor taken as dependent variable but are relatively unrelated to other factors (Tabachnick and Fidell, 2001). The pattern matrix loadings in oblique rotations are standardized regression coefficients (Thompson, 2004).

Hence, the convergence of theoretically proposed factors means that the variables constituting each factor are too highly correlated with other factors for the factors to be distinguished from each other. This does not necessarily mean that respondents are not in a position to perceive the conceptual differences between factors. As Parasuraman et al. (1991) have put it, respondents “...... may indeed consider that the SERVQUAL dimensions are conceptually distinct, but if their evaluations of a specific company on individual scale items are similar across dimensions then fewer dimensions will result. On the other hand if their evaluations of a company on scale items within a dimension are sufficiently distinct, more than five dimensions will result”.

This idea can be easily extended to more than one service provider or indeed to a whole industry. It is obvious that if Greek customers are in a position to conceptually distinguish between the dimensions reliability, responsiveness, assurance and empathy they evaluate similarly insurance service providers across these dimensions and hence the dimensions converged when the GQUAL scale was applied.

However, no empirical evidence on whether customers in Greek insurance were in a position to make a distinction between the theoretical dimensions of service quality was available to the writer at the time of constructing and testing the scale. At a later stage the researcher assigned and supervised a student study that revealed interesting findings in this respect. A final year student of the Technological Educational Institution of Crete in 2004, Ms Georgia Stergiopoulou, conducted a survey on a combined sample of \( n_1 = 125 \) insurance customers and \( n_2 = 139 \) insurance agents aiming at a) establishing whether the five dimensions of service quality are distinguished by custom-
ers and service providers and b) examining the relative importance of service dimensions to respondents.

Both customers and insurers were asked to allocate one-hundred points to the five dimensions of service quality according to their relative importance to them. In Table 6.1 the points allocated on average by customers and insurers to the dimensions are summarized together with the importance rankings of dimensions. Although insurers allocated on average more points to the dimensions tangibles and empathy than insurance customers, the rankings of dimensions were identical. Overall, the study showed that both insurance customers and insurance providers are in a position to distinguish between the dimensions of service quality and assess their importance. However, the empirical validation was considered rather weak at the time as the survey was conducted by an undergraduate student with limited experience on survey and sampling techniques.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Customers Average Points</th>
<th>Customers Rank</th>
<th>Insurers Average Points</th>
<th>Insurers Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibles</td>
<td>10.32</td>
<td>5</td>
<td>13.29</td>
<td>5</td>
</tr>
<tr>
<td>Reliability</td>
<td>31.32</td>
<td>1</td>
<td>29.35</td>
<td>1</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>24.04</td>
<td>2</td>
<td>21.73</td>
<td>2</td>
</tr>
<tr>
<td>Assurance</td>
<td>22.40</td>
<td>3</td>
<td>19.45</td>
<td>3</td>
</tr>
<tr>
<td>Empathy</td>
<td>12.08</td>
<td>4</td>
<td>16.18</td>
<td>4</td>
</tr>
</tbody>
</table>

6.2.5. GIQUAL’s worth for Benchmarking and Identifying Quality Flaws

SERVQUAL (Parasuraman et al., 1988) was created as a means for measuring Gap 5, the magnitude and direction of which reflects the discrepancy between the expectations of customers and their perceptions for what they get in relation either to a single service attribute or a battery of attributes (Parasuraman et al., 1985). SERVQUAL type metrics are often used for improving service quality and for benchmarking.

Regarding service quality improvement, a scale’s usefulness is tied to its ability to promptly identify areas of flawed quality of service delivery. Once quality flaws are
known, then service quality efforts and resources can be appropriately directed to close the gaps. In this respect the dimensions of service quality are important. In the case of GIQUAL the dimensions are only two, the primary one of which, non-tangibles, is too broad to be useful in terms of promptly recognising specific quality flaws. Hence, the scale’s worth in identifying such flaws and, therefore enabling quality resources to be directed towards better improving service quality perceptions, is limited.

Regarding benchmarking, uniformity is particularly important. The ideal situation for benchmarking would be a world in which service quality in all service settings is measured in terms of the same dimensions. However, such an ideal situation does not exist. The dimensionality of SERVQUAL type metrics is found to be industry or country or even time specific (Ford et al., 1993; Asubonteng et al., 1996). Hence, the worth of these scales as instruments for universal benchmarking is limited.

Regarding the benchmarking ability of the GIQUAL metric the following arguments can be made. First, the benchmarking ability of the scale is limited as far as different insurance industries are concerned. For instance service quality in the Kenyan insurance industry is operationalized across five dimensions (Marwa, 2005). Hence, service quality levels in the two industries are not promptly recognizable. Second, GIQUAL’s benchmarking ability within Greek insurance was found to be good. The scale was found stable across samples and through time. It was proven able to identify differences in quality levels between insurers (insurer C was identified as having the worst service quality record) as well as through time (no differences in service quality operationalization were observed in the two phases of this study).

6.2.6. GIQUAL’s worth in predicting Customer Satisfaction levels

The idea that service quality and customer satisfaction are related, though distinct, constructs is inherent in the literature (see chapter 3 section 3.7). In the process of assessing GIQUAL (predictive validity) customer satisfaction was repeatedly regressed against the dimensions non-tangibles and tangibles. Consistently the proportion of variance in customer satisfaction that was explained was high (see chapter 5 sections 5.3.2.3 and 5.5.1.6). Hence, GIQUAL’s worth in predicting customer satisfaction as a result of service quality levels is good. In all these regressions tangibles was found in-
significant in explaining customer satisfaction levels. Hence, the application of GIQUAL confirmed a distinct characteristic of Greek retail insurance that is explainable on the basis of its distinct structure.

6.2.7. Conclusions on GIQUAL

The GIQUAL scale that was constructed for measuring service quality in Greek retail insurance on the basis of the SERVQUAL metric was found reliable, valid and stable across samples and through time. The scale functions exactly as it was meant to in the first place and measures the quality of services in Greek retail insurance and nothing else.

However, the theoretical dimensionality of service quality in terms of tangibles, reliability, responsiveness, assurance and empathy, was not empirically confirmed. Instead a bi-dimensional structure emerged from the analysis that was actually produced by the convergence of the four theoretical dimensions of service quality that correspond to the intangible attributes of service. This convergence can be attributed to one or a combination of reasons. First, Greek insurance customers are not in a position to distinguish between the four intangible dimensions of service quality or the dimensions do not exist in Greek insurance. Second, the dimensions do exist but are not effectively represented in the GIQUAL battery which needs to undergo major reconstruction. Third, the dimensions converge on the basis of some variable not accounted for in the study. Fourth, the dimensions converge simply because Greek insurance customers evaluate similarly their insurers across the dimensions.

It was confirmed that service quality is a driver of customer satisfaction. In all regressions of the variable Customer Satisfaction on the variables Tangibles and Non-Tangibles, in both phases of the study, the $R^2$ values were consistently high, indicating that the dimensions of service quality explained a high percentage of the variance in customer satisfaction.

The problems that poor service delivery brings to service providers were also established. In all samples the customers who reported problems, assessed the quality of services delivered to them by their insurers lower than those who did not report such problems. However, successful recovery efforts repaired the damage (partially or fully) in all samples. When insurers had the chance to resolve their customers’ prob-
lems, customers tended to reassess for the better the quality of services that were delivered to them by their insurers.

6.3. The Service Quality, Customer Satisfaction, Loyalty Model

The study aimed at the examination of the links between the variables service quality, customer satisfaction and customer loyalty. For better explaining the various relationships it was decided that the model should be built on individual dimensions rather than on aggregate constructs.

The variables Tangibles and Non-Tangibles, representing service quality perceptions across the two dimensions of GIQUAL, were selected as exogenous to the model. One could, at this point, argue that it would be better if the empirically established dimensionality of GIQUAL was ignored and instead the variables Tangibles, Reliability, Responsiveness, Assurance and Empathy, representing quality perceptions across the theoretically established dimensions of service quality, were introduced as exogenous to the model. However, this would not be appropriate for the particular circumstances as the aforementioned theoretical dimensions of service quality were not identified either in the individual customer samples (samples A, B, C and G) or in the pooled sample.

The model is well supported theoretically as it represents the prevailing perception for the direction of the causal relationships between its constituent variables (see chapter 3). The between aggregate constructs relationships were extended to include the relationships between construct dimensions and constructs (dimensions of service quality and customer satisfaction) and between dimensions of the same construct (dimensions of customer loyalty).

Empirically the model was tested for fit on two different samples of customers of the Greek insurance industry that were taken with a time span of almost two years from each other, in phases I and II of the study. The overall fit statistics were excellent in both applications (see chapter 5 sections 3.3.2 and 5.2). The theoretical and empirical documentation of the model means that a) the path ‘service quality’ → ‘customer satisfaction’ → ‘customer loyalty’ is confirmed in Greek insurance and b) the model contributes towards better understanding the dynamics of this path at the level of construct dimensions.
Regarding the individual between variables relationships, the following were observed in the two applications of the model in phases I and II of the study (see chapter 5 sections 3.3.1 and 5.2).


In both applications of the model it was found that customer satisfaction was indeed a driver of customer loyalty. The effect of customer satisfaction on word-of-mouth was found significant and the former explained a significant percentage of the variance of the latter. Although the joint effect of customer satisfaction and word-of-mouth on repurchasing intentions of customers was significant, the direct effect of customer satisfaction was not. This means that customer satisfaction does not directly affect the repurchasing intentions of customers, but only through word-of-mouth. The hypothesis that the direction of the causal relationship between word-of-mouth and repurchasing intentions is from the former to the latter was confirmed.

6.3.2. Service Quality Effect on Customer Satisfaction

This relationship was confirmed in both applications of the model, as it was also confirmed in the course of the examination of the predictive validity of the GIQUAL scale. It was re-confirmed that the dimension tangibles is not taken into account in the process of customer satisfaction formation, as consistently the path coefficient from tangibles to customer satisfaction was not significant. Although the path coefficient from non-tangibles to customer satisfaction was, as expected, found significant in phase I, it was not so when the model was applied in phase II, although the magnitude of the coefficient was similar in the two applications of the model (0.71 in phase II compared to 0.73 in phase I).

A closer examination of the structural equations revealed that the insignificance of the path coefficient in phase II was due to the excessively high, compared to phase I, standard error (1.44 in phase II compared to 0.19 in phase I). The magnitude of standard error is inversely related to the square root of the sample size and hence the difference in standard errors can be partially attributed to the smaller sample on which the model was tested in phase II.

However, given the consistent results of regression analyses conducted for the examination of the validity of the GIQUAL scale it was considered that the particular result
in the application of the model in phase II was, most probably, due to situational variables in sampling (location, time etc).

### 6.3.3. The Model’s Worth in Managing Customers’ Loyalty

The excellent overall fit statistics of the model should be sufficient for the model to be efficient in performing its primary task i.e. directing quality resources to improve customer loyalty. However, the model’s worth in this respect was limited by the operationalization of service quality in two dimensions of which the primary one encompassed all intangible attributes of service. Hence, the model was partially limited when compared to its full potential as an instrument for directing quality investments in Greek insurance.

### 6.3.4. Conclusions on the Model

The model was well fitted in both its applications in samples taken almost two years apart from each other and can be considered as accurately portraying the relationships between service quality, customer satisfaction and customer loyalty in Greek insurance. Its construction in the level of dimensions adds to our understanding of the links between the constructs involved. The model describes clearly the existence of an unbreakable chain of effects that starts from the dimensions of service quality and leads to the dimensions of customer loyalty. The whole construction is built on service quality, the effect of which through customer satisfaction, serving as a mediating variable, is extended to the dimensions of customer loyalty.

The direct effect of customer satisfaction on repurchasing intentions was found non-significant. This means that customer satisfaction is not the only driver of customers’ repurchasing intentions. However, the fact that the network of relationships between variables influences the intentions of customers to recommend their insurers and their products/services to others is very important. It is well documented that word-of-mouth is perhaps the most important promotional vehicle in financial services marketing and particularly in insurance (O’Mitchell, 2005).

Under these considerations the model could serve as a system for directing quality investments towards where they matter most, i.e. will have the most positive effect on customer satisfaction and through this on loyalty and especially on word-of-mouth. However, the bi-dimensional structure of service quality deprives the model of much of its potential efficiency in this respect. However, the model can and should be used
as a framework on which researchers and managers would attach additional marketing variables for better understanding the process that leads customers to be prepared to build long-term bonds with their service providers. Such bonds are fundamental for the survival of firms in the complex world of financial services and especially insurance (Gidhagen, 1998).

6.4. Cultural Effects on Service Quality

The argument that the five dimensions of service quality do not exist or customers are not in a position to distinguish between them was dismissed. Stergiopoulou (2004) produced evidence that the five dimensions of service quality are recognisable in Greek insurance. Further, she showed that the importance rankings of the dimensions for insurers and insureds are identical. Hence, the five dimensions of service quality do exist in Greek retail insurance. Culture seemed an obvious variable to investigate, and especially its effect on service quality/customer satisfaction. Hence, it was decided that the study should be extended to determine these relationships.

The issue is of great managerial significance. The idea that service quality affects customer satisfaction prevails in the literature. If culture determines the importance of service quality dimensions to customers, then it is also a driver of customer satisfaction. Hence, culture is critical in segmenting markets for allocating quality efforts and resources for increasing customer satisfaction and through this, improving loyalty levels of customers.

At this stage, the study was focused on assessing culture’s effect on the relative importance of service quality dimensions (Parasuraman et al., 1988) to customers. Then, it went further to assess the effect of culture on customer satisfaction. In this respect, it examined whether the strength of the relationships between customer satisfaction and the theoretical dimensions of service quality is tied with the importance rank to customers of the latter.

6.4.1. Measuring Culture

Most of the management studies on culture identify culture with nation or ethnicity (e.g. Laroche et al., 2004; Lorenzoni and Lewis, 2004). However, Farley and Lehmann (1994) suggest that “cultural factors are only loosely related to the nation state”. Further, they propose that the identification of culture with nation may lead to systematic errors in within-nation studies. Hence, although abiding by the typology of
Chapter 6. Discussion of Results

Hofstede for culture (Hofstede, 1980, 1991), cultural dimensions were measured at the level of individuals.

Although culture refers to society, the conclusions of Hofstede (1980, 1991) on the dimensions of culture and the subsequent indexing of societies, world wide, on the basis of these dimensions (http://www.geert-hofstede.com/hofstede_dimensions.php) were drawn from examining values and relations in the work-place alone. Further, the instruments that Hofstede (1980) proposed for the determination of cultural characteristics in surveys also refer to relations and values associated with the work environment.

However, other researchers have proposed research instruments for the measurement of the cultural characteristics of individuals that are based on values and relations in the wider social environment. (For a comprehensive list of research instruments for measuring culture see Taras (2006)). In this study, the instrument used for measuring the cultural characteristics of individuals was that of Furrer et al. (2000). The instrument had already been used in a Greek service setting by Sigala and Sakellaridis (2004).

6.4.2. Uncovering Cultural Differences

The measurement brought to light a culture quite different from the culture specified for the Greek society by the scores of Hofstede. According to these scores (http://www.geert-hofstede.com/hofstede_dimensions.php), the Greek society is defined as having two diametrically opposite cultural poles. On the one hand it is on top of the list regarding uncertainty avoidance. On the other it is described as a society with a very low score in individualism; the second lowest in Europe. At the same time the Greek society scores quite highly on the dimensions power distance and masculinity. Hofstede (1980, 1991) does not provide a score for the dimension long term orientation, which was added to the dimensions of culture at a later stage.

The study’s measurement resulted in a culture significantly differentiated from that described in the previous paragraph. The culture that was measured in the course of the study was characterized by very high uncertainty avoidance, in line with Hofstede’s score. However, individualism was no longer the lowest ranking dimension but it was shifted somewhat higher. The opposite pole was occupied by the dimensions power distance and masculinity, with statistically equal scores. At the same
time the dimension long term orientation was found to be positive but close to the average. A diagrammatic representation of the two cultural pictures is given in Figure 6.2.

**Figure 6.2. Diverting Cultural Profiles**

![Diagram of cultural profiles](image)

Figure 6.2 portrays a very important shift of three out of four dimensions for which Hofstede had provided scores for the Greek society i.e. power distance, masculinity and, to a lesser extent, individualism. This differentiation can be considered as a shift of the Greek culture towards the direction of the average European culture.

These differences could be attributed to one or a combination of reasons. First, the measurements of Hofstede (1980) for Greece were wrong in the first place. Second, the measurements of Hofstede are now outdated. Third, what was measured in the course of this study was really a sub-culture.

With regard to the credibility of Hofstede’s measurements, in general, a number of researchers have expressed doubts, (e.g. Horton et al., 2001; McSweeney, 2002). For example Horton et al. (2001) suggested that IBM, from the employees of which Hofstede drew, employed mostly males at the time of the survey and hence, more differences were likely to exist between men and women than from country to country, especially when analyzing things like masculinity/femininity, and power distance.

Regarding the cultural scores for the Greek society it must be noted that, at the time that the survey of Hofstede (1968-1972) was conducted, very few multinationals of the magnitude of IBM, were operating in the country. The executives and employees of the specific company were by no means representative of the average Greek worker. IBM’s employees were well educated, highly skilled professionals who were in daily contact with a culture different from that prevailing in Greece at the time be-
cause of their professional affiliation; further, their salaries were exceptionally high. However, there is no concrete theoretical and/or empirical evidence on the basis of which the value of initial Hofstede’s measurements can be disputed, at least for Greece.

With regard to whether the initial measurements of Hofstede for Greece are now outdated it must be noted that much has changed in the Greek society since the 60s and 70s. The most important change has been the regime. At the time of the survey of Hofstede (1968-1972) a military junta, trying hard to promote and establish old fashioned civil-war ideas and values to the Greek society, had seized power (1967-1974). Since 1974 Greece has been a modern democracy open to social trends and ideas from all cultures and particularly from Europe. Further, Greece is a full member of the European Union and the Euro-zone, with an open economy. Since the 60s and 70s women are progressively becoming, at a continuously accelerating pace, equal social partners. Consequently, despite the lack of concrete proof, changes in the cultural characteristics of the Greek society, during the thirty five years since Hofstede’s measurements, should not be surprising. Regarding cultural shifts there is an argument that, although such shifts really exist, national cultures move towards the same direction and hence the cultural differences between societies remain unchanged. If this argument is true, the scores of Hofstede are absolutely suitable for comparisons between national or ethnic societies.

With regard to the possible identification of a sub-culture one could reasonably argue that it should be expected that my sample would have cultural characteristics deviating to a certain extent from the cultural characteristics of the Greek society as a whole. The sample was collected in a major Greek city, in a region of high tourism and economic growth. As such, the sample does not include individuals from semi-urban or rural regions or individuals from less developed and consequently less extroverted regions of the country. To the extent that these arguments are of value then a sub-culture based on the specific characteristics of the region’s population has been measured.

As far as the researcher is in a position to know, the scores of Hofstede for Greece have not undergone any revision process up to this date. Hence, concrete theoretical or empirical indications on the basis of which these scores could be disputed are not available. Consequently, it is most likely that indeed sub-cultures exist within the Greek society, one of which was measured in the course of this study. However, this is
far from being considered the final conclusion on the subject and obviously the issue should be the subject of further research. In each case the measurement of cultural characteristics at the level of individuals should be preferred in within nation management studies.

6.4.3. Relations between the Dimensions of Culture and Service Quality

Regarding the relationships between the theoretical dimensions of culture and service quality, twenty-three out of the twenty-five hypotheses that were set were confirmed; while the remaining two were directionally supported (see chapter 5 section 5.5.3.3). These relationships were examined and established on the basis of between variables correlation coefficients.

It must be noted that significant correlation coefficients between variables do not provide evidence for the causal direction of the relationship between the variables. When two variables are significantly correlated the direction of the causal relationship can be either way or the variables can be correlated on the basis of their common relationship with a third variable. However, in the case of the relationships between the dimensions of culture and service quality there is strong theoretical support for the hypothesis that culture is a driver of service quality expectations. At the same time service expectations across the dimensions of service quality can be considered as reflecting the importance of service dimensions to respondents (Mattila, 1999; Donthu and Yoo, 1998; Furrer et al., 2000; Liu et al., 2001).

In the process of formulating the hypotheses on the relationships between the dimensions of culture and of service quality a number of variables were observed. First, the study was based on the cultural characteristics of individuals as measured by the study. Second, certain situation specific variables were taken into account. In particular it was taken into account that a) customers in Greek retail insurance are weak in relation to their service providers, b) insurance is an infrequent service situation (with Greek insurance being no exception) and c) the vast majority of service employees in Greek insurance are females. Third, the general conditions of the market and of the culture under consideration were also taken into account. Thus, the examination was based not only on “should” but also on “will” expectations, the latter depending on certain general market or culture conditions. It was taken into account, for example,
that the dimension tangibles is unimportant in the Greek insurance market and that the culture within which the hypotheses were set was collectivist as measured both by Hofstede (1980) and by this study.

6.4.4. Importance of Service Dimensions to Customers

On the basis of the relationships between the dimensions of culture and of service quality that were uncovered, the following hypothesis was set and proven: “Reliability is the most important dimension of service quality, followed by Responsiveness and Assurance sharing the second and third positions. Empathy is in the fourth position and Tangibles is in the last”.

This result is comparable to the following results on the Greek insurance market:

1. A closer look at the input variables of phase I of this study reveals that the importance of service dimensions to customers were, in order, reliability, responsiveness and assurance in the first position, followed by empathy and then by tangibles (see chapter 5 section 2.2). The difference between this ranking and the ranking in phase II may well be because the group of respondents in phases I and II of this study were culturally different. However, there is no evidence for this claim.

2. Stergiopoulou (2004) determined the relative importance of dimensions in the following order: reliability in the first position followed by responsiveness in the second, assurance in the third, empathy in the fourth and tangibles in the last positions.

The three results have much in common. Reliability is constantly the most important dimension while empathy and tangibles are the second least and least important dimensions respectively. Responsiveness and assurance are immediately after reliability in two of the studies, and share the first position in the third.

A number of important conclusions can be drawn from these analyses.

First, the Greek insurance customers are indeed in a position to make the necessary distinctions between the dimensions of service quality. They are also in a position to assign different importance weights to these dimensions.

Second, the convergence of the dimensions reliability, responsiveness, assurance and empathy in the GIQUAL scale can be attributed to the fact that customers assess similarly Greek insurers across the four dimensions.
Third, the relative importance of service quality dimensions is tied to culture. This is of high managerial significance. The idea that service quality affects customer satisfaction prevails in the literature. If culture determines the relative importance of service quality dimensions, then it is also a driver of customer satisfaction. Hence, culture is critical in segmenting markets for allocating quality efforts and resources towards increasing customer satisfaction.

6.4.5. Relations between Service Quality and Customer Satisfaction

On the basis of the above mentioned conclusions the following hypothesis was set and tested: “The strength of the relationships between the dimensions of service quality and customer satisfaction is consistent with the importance of these dimensions to customers”.

As hypothesized, the correlation between reliability and customer satisfaction was the highest (0.67). It was followed by the correlations between responsiveness and customer satisfaction (0.64), assurance and customer satisfaction (0.62), empathy and customer satisfaction (0.56) and tangibles and customer satisfaction (0.25); all significant at the 0.01 level. All these results provided support for the hypothesis.

The statistical examination of the differences between correlations revealed that the relationship between the dimension tangibles and customer satisfaction was, as expected, the weakest. However, all other relationships between the dimensions of service quality and customer satisfaction were found statistically equal. Hence, the hypothesis was only directionally supported.

These findings were compared to the corresponding findings of phase I of the study. The correlation between reliability and customer satisfaction was the highest (0.70). It was followed by the correlations between responsiveness and customer satisfaction (0.69), empathy and customer satisfaction (0.69), assurance and customer satisfaction (0.68), and tangibles and customer satisfaction (0.43); all significant at the 0.01 level. Similar to phase II, the relationship between the dimension tangibles and customer satisfaction was the weakest. All other relationships were statistically equal.

The researcher feels that the findings about the relationship between the importance of service quality dimensions and the strength of their relationships with customer satisfaction are far from being the final conclusions on this issue. Methodological limita-
tions of the study may have affected the strength of the relationships and therefore the issue must be subjected to further research.

6.4.6. Conclusions on the Effects of Culture

This study provided evidence that service quality/customer satisfaction is tied to culture. To the extent that culture is decisive in establishing the importance of service quality dimensions to customers is also decisive in establishing quality perceptions. Hence, culture can be the basis on which markets can be segmented for directing quality resources and efforts.

In measuring individual cultural characteristics, an interesting divergence from the, so far accepted, national cultural profile of Greece was uncovered which may be attributed to a number of reasons. To the extent that this divergence can be attributed to the existence of sub-cultures the potential of culture as an instrument for market segmentation is strengthened. However, the whole issue must be the subject of further research.
7. SUMMARY AND CONCLUSIONS

7.1. Overview

This research was set to contribute towards closing the gaps in the literature on three distinct but interrelated research areas: a) the cross-cultural/cross-sectional applicability of the SERVQUAL metric, b) the relationships between service quality, customer satisfaction and customer loyalty at the level of individual dimensions and c) the role of culture in these interactions. To accomplish its objectives this research drew evidence from Greek insurance, an under-researched industry in an under-researched culture.

SERVQUAL has been subjected to severe criticism regarding mainly its applicability across cultures and industries and the replicability of its items and dimensions. The debate is far from being closed although customized SERVQUAL metrics have been extensively used in a variety of service settings around the world (e.g. Wang et al., 2003; Tahir and Wan Ismail, 2005) and the scale remains the most preferred by academics and managers (e.g. Brady et al., 2002). Therefore, any contribution to enhancing the understanding on the applicability of the metric across cultures and industries is valuable in re-enforcing and extending this knowledge base. This research adds to the literature by reporting its findings from the application of a customized SERVQUAL scale that was designed for measuring service quality in Greek insurance and tested for reliability, validity and dimensionality.

The causal relationships between the variables service quality, customer satisfaction and customer loyalty, have been extensively researched. The idea that the path:

‘service quality’→’customer satisfaction’→’customer loyalty’

best describes the causality of these effects prevails in the literature (e.g. Zeithaml, 1988; Iacobucci et al., 1995). However, most studies examine these links at the level of aggregate constructs (e.g. Cronin and Taylor, 1992; Thorpe, 1994). Therefore, the existing knowledge on the relationships between individual dimensions of the same or different constructs is still limited. Not much is known, for instance, of the effects of individual dimensions of service quality on customer satisfaction and the effects of the latter on individual dimensions of customer loyalty. Further, little is known on the possible causal relations between the attitudinal and the behavioural dimensions of
Chapter 7. Summary and Conclusions

loyalty. All these have been studied under a new viewpoint; in a model the constituent variables of which are individual dimensions rather than aggregate constructs. Therefore, this research accomplished its objective to produce knowledge that will contribute towards closing the aforementioned literature gaps.

There is ample evidence in the literature, that culture influences human life through shaping the values, beliefs, and attitudes of individuals (e.g. UNESCO, 2002). Therefore, culture is bound to have an effect on customers’ perceptions of service quality, customer satisfaction, and through them to loyalty. However, much remains to be learned on the relationships between the dimensions of culture and of service quality and customer satisfaction. This study contributes towards narrowing the specific literature gap by producing evidence that comes from studying these links under a new perspective; relating cultural characteristics of individual customers to the importance of service quality dimensions to them and their satisfaction. In examining these relationships, this research utilised the typologies of Hofstede (1980, 1991) for the dimensions of culture and of (Parasuraman et al., 1988) for the dimensions of service quality which are both questionable (Furrer et al., 2000). However, the methodological framework provided will remain valid even if either or both these typologies are undermined by future research.

To produce valid results, the empirical part of this research was conducted in two phases. Phase I dealt with the design of a research instrument, part of which was the customized SERVQUAL metric for Greek insurance (GIQUAL), the collection and analysis of data and the interpretation of findings: a) to establish the efficacy of the GIQUAL metric for measuring service quality and identify quality flaws and therefore, contribute to the existing knowledge on the applicability and replicability of SERVQUAL type metrics across industries and cultures and b) to examine the relationships between service quality, customer satisfaction and customer loyalty at the level of individual dimensions, by constructing and testing a model with constituent variables the dimensions of service quality, as these came along from employing GIQUAL, customer satisfaction and the dimensions of customer loyalty.

Phase II of this research involved: a) the reassessment of Phase I findings regarding the reliability, validity and dimensionality of the GIQUAL metric and the relationships between the dimensions of service quality, customer satisfaction and customer loyalty and b) the examination of the extent to which Hofstede’s (1980, 1991) dimen-
sions of culture are related to the dimensions of service quality (Parasuraman et al., 1088). Phase II replicated and validated the findings of Phase I and added to the existing knowledge about the relationships between culture and service quality/customer satisfaction and through them to loyalty.

This research was epistemologically positioned between positivism and relativism. It started with an extensive review of the literature, on the basis of which hypotheses about the constructs and relationships under examination were set out. Finally, through fieldwork, appropriate data was collected (Easterby-Smith et al., 2002). The study employed all appropriate quantitative techniques leading to the evaluation of results. It employed a survey strategy that used especially designed questionnaires to collect evidence. It examined the applicability of the SERVQUAL scale and the relationships between service quality, customer satisfaction and customer loyalty and its dimensions under a repeated cross-sectional design. At the same time, it was cross-sectional regarding the examination of the effects of culture on service quality/customer satisfaction. Finally, although correlational techniques were employed these were used in a confirmatory manner to seek answers establishing causality.

This chapter opens with a summary of findings followed by a section dealing with the implications of this research. The chapter continues with a section on the study’s limitations and recommendations for further research. Finally, it ends with a section outlining the main conclusions of this study.

7.2. Summary of Findings

This section is devoted to discussing the answers to the main research questions of this study which are related to: a) the customized SERVQUAL metric that was used to measure service quality, b) the model examining the links of customer loyalty with its main antecedents at the level of dimensions and c) the impact of culture on service quality/customer satisfaction.

7.2.1. The GIQUAL Scale

The GIQUAL diagnostic was found appropriate for assessing service quality. The metric constituted of twenty-five items: the twenty-two items of the generic SERVQUAL battery supplemented by three items that were added to capture specific quality issues inherent in Greek insurance. Reliability and validity tests confirmed that
the metric was reliable, valid and able to measure customers’ service quality perceptions.

A major criticism addressed to the SERVQUAL metric is that not all its attributes and dimensions are replicated in their entirety in all applications. Apparently, the items and dimensions of the generic SERVQUAL metric do not adequately capture service quality in all industries and tend to vary with industry, culture and/or time. Hence, SERVQUAL’s stability is generally considered relative rather than absolute (Marwa, 2005). However, the results from the GIQUAL scale were fully replicated when the metric was applied to five independent samples in phases I and II of the study. The absolute replicability of the scale means that customers in Greek insurance consistently assign the same meanings to the attributes and dimensions of the GIQUAL scale. This enhances the validity of the metric.

In each and every instance of its application, the metric generated credible dimensions of perceived service quality. However, the theoretical five-factor structure of the SERVQUAL metric was not replicated in any of these instances. GIQUAL was implemented across two distinct dimensions. The principal dimension (non-tangibles), corresponding to almost 90% of the explained variance, consisted of all twenty-one reliability, responsiveness, assurance and empathy items. The secondary dimension (tangibles), corresponding to 10% of explained variance, was equivalent to the synonymous dimension of generic SERVQUAL.

7.2.2. The Relationships between Service Quality, Customer Satisfaction and Customer Loyalty

The examination of the relationships between service quality, customer satisfaction and customer loyalty provided evidence supporting the idea that the causality of these relationships can be best expressed by the sequence:

‘service quality’ → ‘customer satisfaction’ → ‘customer loyalty’

that prevails in the literature (e.g. Cronin and Taylor, 1992; Mittal and Kamakura, 2001). Thus, this research contributes towards enhancing the knowledge about the generalizability and replicability of previous findings across industries and cultures.

Further, the viewpoint under which these links were examined contributes to the existing knowledge by providing valuable evidence on the interactions between individ-
ual dimensions of the same or different constructs. Evidence was produced that not all dimensions of service quality are equally influencing customer satisfaction. In the service setting that this research was conducted, customer satisfaction was affected only by non-tangibles as the effect of tangibles was consistently non-significant. It must be mentioned here that the dimensionality of service quality in the industry from which evidence was drawn, limited the ability of this research to produce a more expanded set of relationships between the dimensions of service quality and customer satisfaction. Nevertheless, the methodological framework for examining these relationships will be appropriate for the analysis to be conducted in a variety of service industries and produce valuable results.

A positive influence from increased customer satisfaction to loyalty is also found. However, only the direct effect to the attitudinal dimension of loyalty (expressed by word-of-mouth) is significant contrary to the effect on behavioural loyalty (repeat purchase intentions) which is consistently non-significant. However, the positive link from the attitudinal to the behavioural dimension of loyalty permits customer satisfaction to have a significant indirect effect on re-purchasing intentions of customers.

7.2.3. The effect of Culture

The effect of culture was examined under a perspective that is new to the literature. First, hypotheses on the relationships between all possible pairs of dimensions of culture and service quality were set and examined. Second, the hypothesis that the cultural profile of individuals is related with the importance of service quality dimensions to them was tested. Third, the research went further to test the hypothesis that the importance of service quality dimensions is consistent with the strength of their relationships with customer satisfaction.

It was affirmed that culture and service quality are related. Twenty-three out of the twenty-five hypothesized relationships between the dimensions of culture and the importance of service quality dimensions were confirmed. It was determined that the importance of service quality dimensions can be predicted on the basis of cultural profiles. More specifically, the importance of the five service quality dimensions (Parasuraman et al., 1988) was exactly as hypothesized on the basis of respondents’ cultural profile; reliability, followed by responsiveness and assurance, equally ranked, then empathy and finally tangibles.
The hypothesis on the effect of culture on customer satisfaction was not fully supported. As hypothesized, the strengths of the relationships of service quality dimensions with customer satisfaction and the importance of dimensions were identically ranked. Further, the examination of the differences between correlations determined that the relationship between tangibles and customer satisfaction is, as expected, the weakest (p<0.001). However, the relationships of reliability, responsiveness, assurance and empathy with customer satisfaction were statistically equal (p>0.05). I consider this as an interim, not final result that needs to be further examined as it may have been caused by methodological limitations of this study.

In measuring culture at the level of individuals an interesting divergence from the national cultural profile of Greece on the basis of Hofstede’s scores (http://www.geert-hofstede.com/) has been uncovered. There are several possible reasons for this deviation. First, Hofstede’s scores across cultural dimensions for Greece may be wrong or out-of-date. After all, these scores had initially resulted from a study, conducted almost half a century ago, based on a sample not representative of the Greek society. Furthermore, much has changed in Greece since that time. Second, the sample in phase II may represent a sub-culture based not on ethnic but on social and demographic characteristics (Donthu and Yoo, 1998) reflecting today’s bourgeoisie in a major Greek city. Either one or both these claims may be applicable although not enough evidence exists on their validity at this time. However, this particular finding offers support to the line of thinking that culture should not always be identified with nation (Farley and Lehmann, 1994) and should perhaps trigger off an extended study for the re-evaluation of national cultural profiles around the world.

7.3. Research Implications

The implications of this research extend to three inter-related areas: a) the cross industry cross cultural implementation of the SERVQUAL scale, b) the relationships between service quality, customer satisfaction and customer loyalty at the level of construct dimensions rather than on the aggregate c) the effects of culture on these links through its relationships with service quality and customer satisfaction.

Service industries are not stable. They change across countries and/or through time. Hence, service quality is not stable either. Therefore, the use of SERVQUAL in its generic form, instead of appropriately customizing the metric, may result in losing
important information on the quality issues of the industry under consideration. On the other hand, customization is not without dangers either. Extensive customization might cause limitations to the comparability and generalizability of results. Hence, SERVQUAL type metrics should be constructed to incorporate the customized attributes within the general frame of the SERVQUAL scale. This research contributes towards making stronger the case that SERVQUAL is indeed applicable across cultures and industries provided that it is appropriately customized to capture the service attributes of the industry in which it is applied. Further, the findings from applying and testing the metric on evidence from Greek insurance contribute to the existing knowledge on the dimensionality of the SERVQUAL metric and offers support for considering the dimensionality of the metric as industry and/or culture specific (Ford et al., 1993; Asubonteng et al., 1996).

This research re-affirmed the sequence:

‘service quality→customer satisfaction→customer loyalty’

as best reflecting the causality of relations between its constituent constructs. However, it produced additional evidence regarding the relationships between the individual dimensions of constructs. For instance, although service quality improvement reportedly leads to increased customer satisfaction, this research provides evidence that not all dimensions of service quality contribute equally to this outcome. It was found that the effect of tangibles was non-significant and customer satisfaction was related only with the non-tangible elements of service. However, this may well be an industry and/or culture specific result. The dimensionality of service quality in the industry from which this study drew evidence limited the ability of this research to produce a complete set of results regarding the relationships between the individual dimensions of service quality (Parasuraman et al., 1988) and customer satisfaction. However, the new viewpoint that this study introduced for examining these relationships will, no doubt, prove useful for researchers who wish to follow this line of investigation across cultures and industries.

Further, this research provided evidence regarding the effects of customer satisfaction on the individual dimensions of customer loyalty. In particular it showed that customer satisfaction affects directly the attitudinal dimension of loyalty but only indirectly the behavioural dimension. Further, a positive effect of the attitudinal on the
behavioural dimension of loyalty was found. A contribution to the existing knowledge on this under-researched area, these findings offer support to the proposals of Luarn and Lin (2003) and Bandyopadhyay and Martell (2007) who found similar results regarding the two dimensions of loyalty. In this respect the findings of this research may be a valuable input to knowledge on the relationships between the two dimensions of loyalty.

The findings of this research on the relationships between the dimensions of culture and the dimensions of service quality and customer satisfaction may be considered as a significant contribution to knowledge. These relationships have been examined under a new perspective and, to the best of my knowledge, no similar conclusions have been reported up till now in the literature. The cultural profile of customers has been found to be related with the importance of service quality dimensions. Evidence has been produced to partially support the hypothesis that the importance of service quality dimensions is consistent with the strength of their relationships with customer satisfaction; hence, culture has an effect on the latter. The implications of these findings are evident. Culture is linked to the importance of service quality dimensions and can be considered as a driver for directing quality improvement efforts and resources towards the most important dimensions. This will better improve the satisfaction of customers. This new perspective of examining the relationships between culture, service quality and customer satisfaction should be of interest to other researchers that will seek to establish a sound knowledge base on the effects of culture. The methodological framework provided by this research for examining these relationships will remain valid even if either or both typologies of culture (Hofstede, 1980, 1991) and service quality (Parasuraman, 1988) are undermined by future research.

Last but not least, this study raised two important research questions regarding a) the validity of the national cultural profiles that are based on the scores provided by Hofstede (1980, 1991) and b) the existence of cultures within cultures that are based on other than ethnic characteristics. These questions imply that an extended international study might be necessary to assess the current cultural characteristics of ethnic societies and may trigger a research stream that will associate culture with other than ethnic or national characteristics. The issue of culture extends the implications of this research beyond marketing to sociology.

7.4. Managerial Implications
Chapter 7. Summary and Conclusions

This study provided valuable directions for managing the service environment in general and in insurance in particular. First, it re-affirmed the suitability of the SERVQUAL metric for assessing quality although it is not a ready to use instrument suitable for all settings. In order to be effective, the scale must be appropriately customized prior to its use. Customization must be such that the battery of the resulting scale’s constituent items captures the attributes of quality related to the setting under examination. Managers tempted to use the SERVQUAL metric are in danger of losing important information if they use it in its generic form instead of appropriately customizing the metric to capture the quality issues of the specific service setting under consideration. On the other hand extensive customization might cause limitations to the comparability and generalizability of results. Therefore, managers should find the ideal compromise between under and over customization of the metric before its use.

Managers are well aware of the causal relationships in the path:

‘service quality’ $\rightarrow$ ‘customer satisfaction’ $\rightarrow$ ‘customer loyalty’

that are well documented by previous research. However, they know little about the dimension-construct or dimension-dimension relationships in this path. This study delivered a model that examines the relationships at the level of dimensions, thus providing valuable insight to managers seeking to manage their customers’ behaviour by appropriately routing quality efforts and resources. Although the model was developed and tested on data from a single industry, the approach followed can be generalized to apply to other financial services sectors or indeed to any service sector. Thus, services managers will have an instrument for deploying their resources to increase their customers’ loyalty. The model can be used for empirical investigation to provide findings that may be comparable across sectors, countries and time provided that an appropriately customized SERVQUAL type scale is used, in each case, to measure service quality.

The proven effect of culture on service quality/customer satisfaction is of special importance to managers. The findings of this research contribute towards more efficient management of a service environment. The proven relationships between the dimensions of culture and of service quality suggest that service expectations are affected by cultural profiles and culture determines the importance of service quality to customers. For a given objective performance, the perceptions of customers regarding service
quality depend on their expectations. Hence, managers should turn to culture as an aid to their decision making process, especially in relation to allocating quality efforts and resources. For example, to better serve a market segment with similar cultural characteristics to the phase II sample, managers should direct quality efforts and resources primarily to reliability and secondly to responsiveness and assurance. Dissimilar market segments will require a different allocation of resources (Furrer et al., 2000). Service managers should become aware of the cultural segmentation of their markets.

The identical rankings of the relationships between customer satisfaction and service quality dimensions and the importance of the service quality dimensions, suggest that culture also affects customer satisfaction. This research provided evidence indicating that channelling quality efforts and resources to the most important dimensions will have the greatest impact on customers’ satisfaction. For example, in a similar setting to this study it would be more beneficial, in terms of customer satisfaction enhancement, if resources were directed towards closing the quality gap of reliability rather than of any other dimension.

Finally, managers must be aware that culture is not static and that it evolves through time. Such changes affect the relative importance of service quality dimensions and may reduce the effectiveness of quality resource allocation schemes if not detected in time. For example, the replacement of the “me” generation by the “now” generation in the United States in the 90s resulted in a cultural change that increased the importance of responsiveness at the expense of empathy (Heskett et al., 1990). Service managers should be aware that the dynamic nature of culture may demand frequent monitoring and act accordingly in their markets.

Proven causality between culture, service quality, customer satisfaction and loyalty provides evidence that whatever resources businesses can direct towards determining the relationships between these variables, will almost always have positive impact on their performance.

### 7.4.1. Implications for Greek Insurers

As far as Greek insurance is concerned the implications of this study for managerial decision-making is apparent. Greek insurers have, for the first time at their disposal, valuable tools that they can use towards managing their customers’ behaviour.

#### 7.4.1.1. The GIQUAL metric
Greek insurers have now at their disposal the GIQUAL scale; a reliable, valid and stable metric for assessing their customers’ perception for quality of their services. Insurers’ should use GIQUAL for assessing overall service quality perceptions, identifying service attributes in which quality suffers and/or benchmarking. Their benefits from using the metric are evident. The longitudinal use of GIQUAL or some more advanced version of it, to monitor the progression in time of quality perceptions will help Greek insurers to take the necessary measures for maintaining their company’s quality image.

Because of its relatively complex nature, the metric must better be employed by the customer interviewing technique which ensures that no questions are left unanswered and increases response rates. In terms of size, even small samples \((n=150-200)\) can produce valid and reliable results to the extent that they are representative.

However, its bi-dimensional structure limits the potential of the GIQUAL metric in promptly identifying quality flawed areas of service delivery and making comparisons with other industries. Hence, the metric needs to be re-examined and until then must be used with caution in these two areas.

### 7.4.1.2. The Model

Greek insurers seeking to improve their customers’ loyalty levels, enhance retention rates and attract new customers through word-of-mouth have much to benefit by information on the relationships between the variables included in the model that was developed as a result of this study.

They can benefit by getting insight on how much, their customers’ satisfaction levels are influenced when service quality perceptions, along certain attributes of service, are increased and, hence, how much customers are influenced towards engaging in word-of-mouth communication.

The longitudinal use of the model or some more advanced version of it, to monitor the progression in time of these relationships would help Greek insurers to monitor their customers’ reactions and act accordingly. However, the model must be used with caution as the bi-dimensionality of service quality in Greek insurance limits the potential of the model in channelling resources.

Of particular interest, to Greek insurers, is the finding that emotional loyalty (word-of-mouth) is an antecedent of behavioural loyalty (repurchasing intentions) in Greek in-
insurance and that customer satisfaction does not have a direct effect on the latter. Consequently, Greek insurers should prioritize their service mechanisms towards developing customers willing to get engaged in word-of-mouth communication. In addition, Greek insurers must take into account that their customers do not allow for the tangible elements of service in their satisfaction formation process. Hence, they must primarily direct their resources towards improving the human rather than the tangible elements of their services.

7.4.1.3. The Effect of Culture on Service Quality and Customer Satisfaction

The proven relationships between the dimensions of culture and of service quality remedy to some extent the identified limitations of the GIQUAL metric and the model and provide Greek insurers with valuable aids of efficiently managing their customers’ behaviour. Hence, Greek insurers should consider culture as an aid to their decision making process in allocating quality efforts and resources.

It has been proven that cultural profile of a particular market segment determines the importance of service quality dimensions and, hence, can be the basis for accordingly allocating efforts and resources. Hence, Greek insurers should become aware of the cultural segmentation of their markets.

The study provides evidence that channelling quality efforts and resources to the most important dimensions will have the greatest impact on customers’ satisfaction. I suggest that this is an additional reason for culture to be included in the portfolio of Greek insurers’ management decision aids.

However, Greek insurers must become aware that culture is not static and it changes through time. Hence, they must develop the necessary mechanisms for frequently monitoring the evolution of culture in their markets and accordingly adapt their decision making.

7.5. Research Limitations and Recommendations for Further Research.

Although all due methodological care was taken, this study suffered from a number of limitations. These will be discussed within the following paragraphs. The section concludes with recommendations for future research.
7.5.1. Research Limitations

*Drawing from a single industry* was a major limitation of the study. Although services industries have much in common, each industry has its own special characteristics in terms of product/service complexity, position in the tangible dominant/intangible dominant continuum, distribution channels, automation levels, price elasticity etc.

Drawing only from a single industry limits the generalizability of findings. For example, due to the nature of the study (drawing only from Greek retail insurance) the effect of culture on service quality/customer satisfaction was studied only on a single combination of situational variables i.e. infrequent service situation, weak customers and female service employees. Not all industries function with the same combination of situational variables. For instance, in the wider area of financial services, retail banking is a frequent service situation with service employees more or less equally divided between males and females and the power of customers depending on the size of their accounts. Consequently, certain findings of this study may be generalisable across services industries while other generalisations are unlikely.

*Abiding by the prevailing typologies for service quality and culture.* The study abided by the prevailing typologies regarding the dimensions of service quality (Parasuraman et al., 1985, 1988) and the dimensions of culture (Hofstede, 1980, 1991), although both typologies are testable.

In this respect the construction of the GIQUAL metric depended almost entirely on the SERVQUAL battery (twenty two out of its twenty five items). The subsequent analysis in phase I took for granted the five dimensions of service quality as these were determined by Parasuraman et al. (1988). In phase II, culture was considered in terms of the five dimensions defined by Hofstede (1980, 1991). However, if new or alternative dimensions exist for both constructs, the measurement metric for service quality would be different, the model would be affected and the effects of culture on service quality/customer satisfaction might be different. However, the methodology of this study will be valid even if new or alternative dimensions of service quality and/or culture exist.

*Considering customer satisfaction as one-dimensional construct.* Customer satisfaction is usually treated as one-dimensional (Meyer and Westerbarkey, 1996). However,
certain researchers consider the construct in terms of a number of dimensions. Having treated customer satisfaction in terms of more dimensions, the links in the model and the effects of culture on customer satisfaction would have been different. However, the methodology of this study would still be valid.

**Restricted Samples.** Although adequate for statistical analyses, in relation to other studies the samples on which this study was undertaken were small. This can be considered as further limiting the generalization of findings.

**Restricted Participation of Insurers.** The small number of participating insurers (three out of one hundred – although major market players with a combined market share well over 20%) limited the generalization of findings across the Greek insurance industry. Perhaps more participation would have enhanced the generalizability of results.

**Convenience sampling,** although quite common in management studies (e.g. Brady et al., 2002; Chang et al., 2002; Wang et al., 2004; Semeijn et al., 2005), is another limitation of the study. In convenience sampling, the selection of units from the population is based on availability and/or accessibility. The major disadvantage of this technique is that there is no measure of the representativeness of the information collected about the sample to the population. However, the technique can still be a good source of data in exploratory research.

The samples in phase I of the study were collected from the two major cities of the region of Crete i.e. Heraklion and Chania and, to a lesser extent, from the nation’s capital Athens. Three of these samples were taken out of customer lists provided by participating insurers, which were out of the researcher’s control. In addition a “mall intercept sample” was collected. In phase II a “mall intercept sample” was collected from the city of Heraklion. If other cities and/or regions had been included in the sampling process findings might have been different and/or varied. However, Athens and its suburbs account for almost 40% of the country’s population and the combined contribution of the cities of Heraklion and Chania to the region of Crete exceeds 45% (Heraklion 30% and Chania 15%) in terms of population and 80% in terms of economic activity.

Overall, variables such as location and sample unrepresentativeness may have affected the findings. However, all due care was taken to minimize the introduction of bias in
the samples and, based on the stability of results sampling, can be considered adequate given specific time and cost constraints.

### 7.5.2. Recommendations for Further Research

The aforementioned limitations of the study can be considered opportunities for future theoretical and empirical research.

It is beyond doubt that GIQUAL is suitable for measuring service quality in Greek insurance. However, the research for an effective and all-inclusive system for measuring service quality and identifying service areas where quality suffers is far from over in Greek insurance and financial services in general. Hence, further research on the subject is imperative, particularly in the Greek financial services industry which is currently in a transient stage towards complete maturity. Future research should focus on thoroughly examining the attributes and dimensions of quality, taking into consideration the cultural environment as well as other marketing variables and/or dimensions of variables. Comparison of GIQUAL’s results in diagnosing service quality with those of other diagnostics in the same industry will provide further insights on competitiveness and/or robustness of metrics and complementary fits necessary to achieve superior service quality.

Equally far from over is the search for a complete and effective model encompassing all variables and links that lead to customer loyalty. The study offered additional support for the significance of the relationships in the path:

\[
\text{‘service quality’} \rightarrow \text{‘customer satisfaction’} \rightarrow \text{‘customer loyalty’}.
\]

However, the effect of other variables such as price, value etc should be evaluated in an extended model. Ideally, additional research should be directed to arrive at an all-inclusive system that would translate the effect of input variables such as service quality in terms of customer loyalty levels. The extension of the model to include consequences on the economic performance of firms would further enhance its value.

Regarding the effect of culture on service quality/customer satisfaction, future replications of the study should encompass samples from a number of service industries and therefore give the opportunity to consider all possible combinations of situational variables. Further, cross-national repetitions of the study would give the opportunity to enhance managers’ understanding of the effect of culture on service quality/customer satisfaction in international markets.

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Finally, the evolutions of culture and service expectations need to be monitored. The ever increasing use of technological means seems to result in causing rapid cultural changes and rising service expectations as a consequence of escalating levels of service delivery (Heskett et al., 1990). Further research should be addressed on the appropriateness of the cultural scores of Hofstede in the current cultural reality of societies. If these scores are void it is critical for them to be redefined and continuously monitored to be useful for the determination of cultural differences between societies. Such changes need longitudinal research to be studied.

The possible redefinition of cultural scores is particularly important for countries such as Greece with a high rate of economic development and social/cultural evolution. Further, the extent to which sub-cultures based on other than ethnic or national common denominators exist should be subject of further research. Such sub-cultures could be used for segmenting markets in terms of service quality priorities.

### 7.6. Conclusions

Conclusions on the cross-cultural applicability of previous research findings are of particular research interest regarding the generality and universality of findings. In this respect, this research is important in that it draws evidence from a culture which is different from the Anglo-Saxon cultures (Hofstede, 1980) which mostly provide evidence to the management literature.

As I have shown, the debate on the applicability of SERVQUAL across industries and cultures is still open. This research re-affirmed the applicability of SERVQUAL provided that the scale is appropriately customized. It also provided additional knowledge that may be welcome in the open debate on the dimensionality of the SERVQUAL metric.

The research confirmed previous research findings on the causal relationships between service quality, customer satisfaction and customer loyalty. Further, the study was appropriately extended to examine these links at the level of dimensions. The finding that all dimensions of service quality do not equally influence customer satisfaction is a contribution to the existing knowledge on the impact of service quality to customer satisfaction. It was found that in the setting from which this research drew evidence, customer satisfaction depends only on the non-tangible attributes of service quality as the influence of tangibles was consistently found non-significant.
The influence of individual dimensions may well be industry specific. For instance, in the case of Greek insurance the insignificance of the effect of tangibles may have resulted from a combination of industry attributes, i.e. the intangibility of insurance and the distinct structure of Greek insurance. Previous research shows that the more intangible the service the higher the customers’ expectations for the service’s non-tangible elements (Bebko, 2000) and that there is a positive correlation between the level of the service’s tangibility with the importance of its tangible dimension (Santos, 2002).

The causal relationship ‘customer satisfaction’ $\Rightarrow$ ‘loyalty’ was also confirmed. The finding of this study that emotional loyalty is an antecedent of behavioural loyalty and that customer satisfaction does not have a direct effect on the latter offers support for comparable findings that recently appeared in the literature (Luarn and Lin, 2003; Bandyopadhyay and Martell, 2007). Athanassopoulos et al. (2001) presented a similar result in the same cultural setting, suggesting that bank consumers in Greece react to customer satisfaction perceptions by engaging in word-of-mouth and that word-of-mouth encapsulates positive loyalty in the Greek retail-banking environment.

This research builds on previous findings on the relationships of culture with service quality/customer satisfaction. It examined these relationships under a new perspective that associates cultural characteristics with the importance of service quality dimensions. Further, this study associated the importance of service quality dimensions with the strength of their relationships with customer satisfaction. It is the first study that reported such findings and hence adds to the literature. Although the combination of situational variables in Greek retail insurance (frequent vs. infrequent services, weak vs. powerful customers, primarily female vs. primarily male employees) is different from other industries, the methodological framework of the study is applicable to every culture/service setting arrangement. Hence, a wide variety of industries may benefit by replications of this study.

Finally, this research raised important research questions regarding the appropriateness of the national cultural profiles drawn on the basis of Hofstede’s (1980, 1991) scores and on the identification of culture with nation. More detailed measurements of culture would contribute towards providing answers to these questions.
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APPENDIX 1a. QUESTIONNAIRE – PHASE I

Dear Madame/Sir

This questionnaire was designed to serve as an instrument for measuring the quality of insurance services in our country. I understand that time is very valuable to you but please spare a few minutes to answer to the questions that follow. Your personal details are not to be revealed and the identity of your insurance company will be indicated as A, B etc for obvious reasons. Your answers will help us to, hopefully, draw useful conclusions that will benefit both consumers and insurers.

With Respect

| 1. Please indicate your Insurance Company _____________________________________________ |
| 2. Gender |
| Male | Female |
| 3. Age |
| 4. Family Status |
| Married | Single | Other |
| 5. Family Income (annual) |
| < € 30,000.00 | € 30,000.00 – 50,000.00 | € 50,000.00 – 100,000.00 | > € 100,000.00 |
| 6. Occupation |
| Civil Servant | Private Employee | Self Employed | Businessman/Businesswoman | Pensioner/Retired | Business Executive | Sailor | Farmer | Other |
| 7. Your contract (or contracts) with your insurance company include |
| Death insurance | Pension insurance | Investment | Income Insurance | Accident/Illness/Hospitalization | Fire Insurance | Vehicle Insurance | Third party liability | Other |
| 8. Your insurance contracts are |
| Private | Business | Both |
| 9. Did you have some problem dealing with your insurance company in the past? |
| Yes | No |
| 10. If YES what was its kind? |
| Claim Settlement | Information | Cover adequacy | Attitude | Other |
| 11. If YES was it resolved to your satisfaction? |
| Yes | No |
12. Based on your experience as a customer – consumer of Insurance Services please think of the kind of Insurance Company that, in your opinion, offers services of excellent quality. Indicate how much it must possess each one of the characteristics E1 to E26 that follow. If you think that a characteristic is **not important at all** for an excellent insurance company please check 1. If you think of it as **extremely important** check 7. If your position is not so strong then check one of the intermediate grades.

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<tr>
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<th>Not at all Important</th>
<th>Extremely Important</th>
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<tr>
<td>1. Excellent insurance companies use modern equipment and technology.</td>
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<td>2. Physical facilities of excellent insurance companies (central offices, branch offices, agencies) are visually appealing.</td>
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<td>3. Employees and agents of excellent insurance companies are neat appearing</td>
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<td>4. Service associated materials (leaflets, prospects, various service documents etc) of excellent insurance companies are visually appealing.</td>
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<td>5. Excellent insurance companies offer their products and services at competitive prices.</td>
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<td>6. Excellent insurance companies offer products and services of utmost quality.</td>
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<td>7. Excellent insurance companies keep their promise when they undertake to do something by a certain time.</td>
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<td>8. Excellent insurance companies issue contracts containing clear, transparent and non ambiguous terms.</td>
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<td>9. Excellent insurance companies settle their customers’ claims easily and with no unnecessary delays.</td>
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<td>10. When there is a problem with a customer, excellent insurance companies, show sincere interest in solving it.</td>
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<td>11. Excellent insurance companies offer their services right the first time without discomforting their customers.</td>
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<td>12. Excellent insurance companies offer their services within the specified by the contract time limits.</td>
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<td>13. Excellent insurance companies issue error free bills, statements, receipts, contracts, claims and other documents.</td>
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<td>14. Employees and agents of excellent insurance companies tell their customers exactly when the services will be performed.</td>
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<td>15. Employees and agents of excellent insurance companies do their best to give prompt service to customers.</td>
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<td>16. Employees and agents of excellent insurance companies are always willing to help customers.</td>
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<td>18. Customers of excellent insurance companies feel safe in their transactions with them.</td>
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<td>20. Employees and agents of excellent insurance companies are consistently courteous with customers.</td>
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<tr>
<td>21. Employees and agents of excellent insurance companies have the necessary knowledge to give professional services to customers.</td>
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<tr>
<td>22. Excellent insurance companies give customers individual attention.</td>
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<tr>
<td>23. Excellent insurance companies have operating hours convenient to all customers.</td>
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<tr>
<td>24. Excellent insurance companies have employees and agents who give customers personal attention.</td>
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<tr>
<td>25. Excellent insurance companies have the customers’ best interests at heart.</td>
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<tr>
<td>26. The employees and agents of excellent insurance companies understand the specific needs of their customers.</td>
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</tbody>
</table>
13. Characteristics P1 to P26 refer to your Insurance Company (which you have identified in question 1). Please indicate if it possesses each of these characteristics. Check 1 if you totally disagree and 7 if you totally agree. If your position is not so strong check one of the intermediate grades.

| P1. Your insurance company uses modern equipment and technology. |
| P2. Your insurance company’s physical facilities are visually appealing. |
| P3. The employees and agents of your insurance company are neat appearing. |
| P4. Service associated materials (leaflets, prospects, various service documents etc) used by your insurance company are visually appealing. |
| P5. Your insurance company offers to you its products and services at competitive prices. |
| P6. Your insurance company offers to you products and services of the utmost quality. |
| P7. Your insurance company keeps its promise when it undertakes to do something by a certain time. |
| P8. Your insurance company issues contracts containing clear, transparent and non ambiguous terms. |
| P9. Your insurance company settles your claims easily and with no unnecessary delays. |
| P10. When you have a problem your insurance company shows sincere interest in solving it |
| P11. Your insurance company offers to you its services right the first time without discomforting you. |
| P12. Your insurance company offers its services to you within the specified by your contract time limits. |
| P13. Your insurance company issues error free bills, statements, receipts, contracts, claims and other documents. |
| P14. Employees and agents of your insurance company tell you customers exactly when the services will be performed. |
| P15. Employees and agents of your insurance company do their best to give you prompt service. |
| P16. Employees and agents of your insurance company are always willing to help you. |
| P17. Employees and agents of your insurance company are never too busy to respond to your requests. |
| P18. You feel safe in your transactions with your insurance company. |
| P19. The behaviour of your insurance company’s employees and agents instil confidence in you. |
| P20. Employees and agents of your insurance company are consistently courteous with you. |
| P21. Employees and agents of your insurance company have the necessary knowledge to give professional service to you. |
| P22. Your insurance company gives you individual attention. |
| P23. Your insurance company has operating hours convenient to all its customers. |
| P24. Your insurance company has employees and agents who give you personal attention. |
| P25. Your insurance company has your best interests at heart. |
| P26. The employees and agents of your insurance company understand your specific needs. |

<table>
<thead>
<tr>
<th>Totally disagree</th>
<th>Totally agree</th>
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<tbody>
<tr>
<td>1</td>
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<td>3</td>
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<td>5</td>
<td>6</td>
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<td>7</td>
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</table>
14. Please grade your overall satisfaction from your insurer and its services. Check 10 if you are absolutely satisfied or 1 if you are not at all satisfied. If your position is not so strong check intermediate grades.

<table>
<thead>
<tr>
<th>Overall Satisfaction</th>
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<tbody>
<tr>
<td>Not at all</td>
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<tr>
<td>1</td>
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</tbody>
</table>

15. Would you suggest to a friend or relative your insurance company and its services?

1. Yes
2. No

16. How would you cover an additional insurance need of yours in the immediate future?

1. I would acquire a policy from some other company
2. I would acquire a policy from my insurance company
3. I would research the market and I would acquire a policy from the company that offers the best terms to me

17. Please use the empty space below to lay down any comments, proposals or advice regarding the quality of insurance services.
### APPENDIX 1b: THE ORIGINAL SERVQUAL SCALE

#### 1. Expectations Section

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<td>1</td>
<td>Excellent xyz companies will have use modern equipment</td>
<td>Strongly Disagree</td>
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<td>2</td>
<td>3</td>
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<td>2</td>
<td>The physical facilities of excellent xyz companies will be visually appealing.</td>
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<td>3</td>
<td>Employees at excellent xyz companies will be neat-appearing</td>
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<td>4</td>
<td>Materials associated with the service (such as pamphlets or statements) will be visually appealing at excellent xyz companies</td>
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<td>5</td>
<td>When excellent xyz companies promise to do something by a certain time, they will do so</td>
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<td>6</td>
<td>When a customer has a problem, excellent xyz companies will show a sincere interest in solving it</td>
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<td>7</td>
<td>Excellent xyz companies will perform the service right the first time</td>
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<td>8</td>
<td>Excellent xyz companies will offer their services at the time they promise to do so</td>
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<td>9</td>
<td>Excellent xyz companies will insist on error-free records</td>
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<td>10</td>
<td>Employees in excellent xyz companies will tell customers exactly when services will be performed.</td>
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<td>11</td>
<td>Employees in excellent xyz companies will give prompt service to customers.</td>
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<td>12</td>
<td>Employees in excellent xyz companies will always be willing to help customers.</td>
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<td>13</td>
<td>Employees in excellent xyz companies will never be too busy to respond to customers’ requests.</td>
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<td>14</td>
<td>The behaviour of employees in excellent xyz companies will instil confidence in customers</td>
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<td>15</td>
<td>Customers of excellent xyz companies will feel safe in their transactions</td>
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<td>17</td>
<td>Employees in excellent xyz companies will have the knowledge to answer to customers’ questions</td>
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<td>18</td>
<td>Excellent xyz companies will have give customers individual attention.</td>
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<td>19</td>
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<td>Excellent xyz companies will have employees who give customers personal attention.</td>
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<td>21</td>
<td>Excellent xyz companies will have the customers’ best interests at heart.</td>
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<td>22</td>
<td>The employees of excellent xyz companies will understand the specific needs of their customers.</td>
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## 2. Perceptions Section

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<tbody>
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<td>1. XYZ Co. has modern looking equipment</td>
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<td>2. XYZ Co.’s physical facilities are visually appealing.</td>
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<td>3. XYZ Co.’s employees are neat appearing.</td>
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<td>7. XYZ Co. performs the service right the first time</td>
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<td>8. XYZ Co. provides its services at the time it promises to do so</td>
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<td>9. XYZ Co. insists on error free records</td>
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<td>10. Employees in XYZ Co. tell you exactly when services will be performed.</td>
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<td>12. Employees in XYZ Co. are always willing to help you.</td>
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<td>16. Employees in XYZ Co. are consistently courteous with you.</td>
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<td>17. Employees in XYZ Co. have the knowledge to answer your questions</td>
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<td>20. XYZ Co. has employees who give you personal attention.</td>
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<td>21. XYZ Co. has your best interests at heart.</td>
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<td>22. Employees of XYZ Co. understand your specific needs.</td>
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(Source: Zeithaml et al., 1990)
### APPENDIX 2. GIQUAL ITEMS AFTER MODIFICATION

<table>
<thead>
<tr>
<th>Tangibles (4 Items)</th>
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<tbody>
<tr>
<td>Q1 - Modern looking Equipment and Technology</td>
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<tr>
<td>Q2 - Visually appealing physical facilities</td>
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<tr>
<td>Q3 - Neat appearing employees and agents</td>
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<tr>
<td>Q4 - Visually appealing service materials</td>
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<thead>
<tr>
<th>Reliability (8 Items)</th>
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<tbody>
<tr>
<td>Q6 - Offer quality products and services</td>
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<td>Q7 - Keeping Promises</td>
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<td>Q8 - Contracts with clear terms</td>
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<td>Q9 - Settling claims with no unnecessary delays</td>
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<td>Q10 - Being interested on solving customers’ problems</td>
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<tr>
<td>Q11 - Perform the service right the first time</td>
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<td>Q12 - Provide services at the promised time</td>
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<td>Q13 - Issuing error free documents.</td>
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<thead>
<tr>
<th>Responsiveness (4 Items)</th>
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<tbody>
<tr>
<td>Q14 - Informing customers exactly when services will be performed</td>
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<tr>
<td>Q15 - Offering prompt service to customers</td>
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<tr>
<td>Q16 - Always willing to help customers</td>
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<tr>
<td>Q17 - Never being too busy to respond to customer requests</td>
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<tr>
<th>Assurance (4 Items)</th>
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<tbody>
<tr>
<td>Q18 - Customers feeling safe in their transactions</td>
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<tr>
<td>Q19 - Employees and agents instilling confidence in customers</td>
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<tr>
<td>Q20 - Employees and agents being consistently courteous with customers</td>
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<tr>
<td>Q21 - Employees and agents having the knowledge to respond to customers’ requests</td>
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<tr>
<th>Empathy (5 Items)</th>
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<tbody>
<tr>
<td>Q22 - Giving to customers individual attention</td>
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<tr>
<td>Q23 - Having convenient operating hours</td>
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<tr>
<td>Q24 - Employees and agents giving customers personal attention</td>
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<td>Q25 - Having the customers’ best interests at heart</td>
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<tr>
<td>Q26 - Employees and agents understanding the specific needs of customers</td>
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</tbody>
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APPENDIX 3. MEASURING CULTURE

Power Distance

H1. Inequalities among individuals are both expected and desirable.
H2. Less powerful individuals (in terms of money, influence, place etc) should dependent on the more powerful
H3. Inequalities between people should be minimized (-)
H4. There should be, and to some extent there is, interdependence between less and more powerful (in terms of money, influence, place etc) people (-)

Individualism/Collectivism

H5. Every one must look after himself/herself and his/her immediate family only
H6. Individuals are identified independently of the social groups that they belong.
H7. Members of extended families should be protected in exchange to their loyalty to the family (-).
H8. Individuals are identified by their position in the social groups in which they belong (-).

Masculinity/Femininity

H9. Money and material goods are important things in the life.
H10. Men should be aggressive, ambitious and tough.
H11. Dominant social values are the caring for others and preservation (-).
H12. Both men and women have the right to be tender and be concerned with their relationships with others (-).

Uncertainty Avoidance

H13. Stress and a feeling of anxiety are frequent among people.
H14. Fear for ambiguous situations and for unfamiliar risks is normal.
H15. Uncertainty is a normal characteristic of life and each new day should be accepted as it comes (+).
H16. Emotions should not be revealed to others (-).

Long Term Orientation

H17. Willingness to subordinate oneself for a purpose is normal.
H18. People should be patient in order to have long-term results.
H19. Traditions should be respected (-).
H20. Social obligations should be respected regardless of cost (-).

Note. Items with minus signs are reverse coded

(Source: Furrer et al., 2000)