

International Hellenic University

Thessaloniki, Greece

School of Economics and Business Administration MSc in Management

MASTER DISSERTATION

MEASURING SERVICE QUALITY IN THE PUBLIC SECTOR: PERCEPTIONS OF EMPLOYEES IN GREECE (A CASE STUDY)

Papadopoulou N. Theodora

Student ID: 1102100030

Thessaloniki, September 2010

List of Illustrations

TABLES

- Table 1: Reliability Scores of SERVQUAL
- Table 2: Expectations' and Perceptions' Gap Mean differences and Paired t-tests
- Table 3: Correlations of Expectations
- Table 4: Correlations of Perceptions
- Table 5: Regression Analysis for employee satisfaction variation
- Table 6: Regression Analysis for employee satisfaction variation (loyalty is

independent variable in the model)

- Table 7: Regression Analysis for loyalty variation
- Table 8: Hypothesis Testing Results

FIGURES

Figure 1: Perceived Service Quality Determinants

Table of Contents

Abstract		5
Acknow	ledgements	6
1. Chapt	er 1: Introduction	7
2. Chapt	er 2: Literature Review	10
2.1	Service quality	10
2.1.1	Characteristics of Services and Difficulties in the Service Supply	
Process		10
2.1.2	Importance of the Perceived Service Quality and its Measurement	11
2.1.3	Employees and Service Quality	12
2.2	Service quality, employee satisfaction and loyalty	13
2.2.1	Service Quality and Satisfaction	13
2.2.2	Service Quality, Satisfaction and Loyalty	14
2.3	Public sector	15
2.4	The SERVQUAL model	17
3. Chapt	er 3: Research methodology	20
3.1	Research context and sample	20
3.2	Selection criteria for using case study as the best approach for this	
research		21
3.3	The Questionnaire	21
3.4	The process	23
4. Chapt	er 4: Data Analysis	25
4.1	Reliability evidence	25
4.2	Descriptive statistics	25
4.3	Data analysis of service quality	26
4.4	Regression analysis	30
5. Chapt	er 5: Discussion	34
5.1	Discussion of the findings	35
5.1.1	Discussion of the first research question- H ₁ : employee perceptions of	
service o	quality, satisfaction and loyalty are greater than their expectations	35
5.1.1.	1 The Dimension "tangibles"	35
5 1 1 ′	The Dimension "assurance"	36

	5.1.1.3	The Dimension "responsiveness"	37			
	5.1.1.4	The Dimension "empathy"	37			
	5.1.1.5	The Dimension "reliability"	38			
	5.1.1.6	Overall Service quality, satisfaction and loyalty	39			
	5.1.2	Discussion of the second research question- H2: Service quality				
	dimension	ns and loyalty explain satisfaction variation.	39			
	5.1.3	Discussion of the third research question- H3: Service quality				
	dimension	ns and satisfaction explain loyalty variation	40			
	6. Chapte	r 6: Conclusion and recommendations	42			
	6.1	Conclusion	42			
	6.2	Recommendations for improvement	43			
	6.3	Limitation and future research	44			
	Reference	es	45			
Appendix A: Questionnaire (Munhurrun et al., 2010a)						
	Appendix	B: The questionnaire in Greek	58			

Abstract

The aim of this dissertation is to determine how employees of the Financial Services of Greece, (namely the Inland Revenue Service) view the functional quality of their services. The study focuses on the identification of employee perceptions and expectations of service quality and on the gap between the actual conditions and their expectations about ideal service delivery. Furthermore, this study tries to define which service quality dimensions present the greatest shortfalls based on employee perceptions and to link these shortfalls with attributes such as satisfaction and loyalty. The data collection method employed for the purposes of this research is based on a questionnaire drawing on the SERVQUAL model, which allows for comparisons between the aforementioned dimensions. The dissertation begins with the presentation of the international literature related to terms such as service quality, employee satisfaction and loyalty, public sector characteristics and analysis of the SERVQUAL model. It then proceeds with the methodology and the presentation of the gathered primary data, the statistical elaboration of which combined with the relative literature, lead to the conclusions drawn. The discussion is based on the literature and hypotheses presented on the relative chapter and provides important theoretical and managerial implications. The service quality of the targeted sample (the specific Service Department of the Inland Revenue Service) was found to be poor regarding employee perceptions. Employee satisfaction and loyalty presented also shortfalls. Finally, the dissertation provides recommendations for the improvement of the current situation in order to eliminate and minimize the negative impact that poor service quality has on employee performance and satisfaction.

Acknowledgements

I would like to thank everyone who helped in achieving this dissertation. Special thanks to the people that participated in reading and correcting my work and to the people who gave me valuable advice regarding the completion, better structure and scientific validity of my master thesis.

1. CHAPTER 1: INTRODUCTION

Employee satisfaction is very important for the proper operation of services (Babakus et al., 2004). This postulation is particularly evident in Greece which does not have a strong heavy industry, while services constitute the basis of its economy (Central Intelligence Agency, The World Fact Book, 2010). It is essential for a country with such features to invest in developing the level of its service quality and employee satisfaction. The latter is very important for the operation and quality of services since employee satisfaction is closely associated with the positive emotions connected with a person's experiences in his/her job and the way his/her work is being appraised (Locke, 1976). An employee that is satisfied with his/her job is more prone to produce better results in his/her work (Nejatia et al., 2007). The above prove the importance of employee satisfaction and its linkage with service quality.

A review of the relative literature reveals that researches in the area of service quality have mainly examined the relationship between service quality and the degree of customer satisfaction (Babakus et al., 2004; Cronin and Taylor, 1992). The majority of these studies have focused on the private sector, where information is more easily accessible and the main concern regards profitability achieved through customer satisfaction. These studies measure service quality and satisfaction as a perception of customers. Yet, little empirical work has been done for the measurement of service quality as a perception of employees and for the assessment of employee satisfaction and loyalty (Munhurrun et al., 2010a). Even more neglected remains academic research that focuses on the public sector in this area. As such, the current study will examine employee perceptions of service quality within the public context. To this end, an analysis of service quality, job satisfaction and loyalty will be provided.

Public sector in Greece is an area of dysfunctional services where deficits and lack of coordination (Philippidou et al., 2004) create an environment where employees cannot easily cooperate with each other and where services do not actually serve citizens in the way they should. This situation emerges from the poor financial condition in Greece, which is a result of an extensive abuse of the public money that has occurred for several years. (Atkins, 2010). The dysfunctional public sector is an obstacle towards the effort to save money and regenerate the Greek economy. In its current

effort to regenerate the economy, the State is trying to save money through extensive reduction of the civil servants' salaries. This affects the way employees of the public sector view their work as well as the degree to which they are willing to work more effectively in order to offer the appropriate level of services. An employee has to work under specific circumstances that will secure a working environment that is appropriate to produce improved and efficient outcomes. Elements that are believed to be of importance in creating such a working environment pertain to role conflict and clarity within an organization, job tension and satisfaction, having been acknowledged as of great importance, affecting the employee performance and its impact on the effectiveness of operations in an organization (Nejatia et al., 2007; Lusch and Serpkenci, 1990; Kelly et al., 1981).

However, employees are usually forced to deal with situations where these elements are absent or weak. This is particularly evident in the case of the Financial Services of Greece (Inland Revenue Services) of the Ministry of Economics, which serves as the sample in the current research. Financial Services constitute a part of the public sector that is representative of the increased interaction between employees and customers, providing services that constitute the main source of revenues for the State, but also the main source of complaints with regard to the quality of services on the part of citizens. Based on the above analysis and in order to address this void in literature, the main objective is to contribute to a better understanding of 1) the level of the quality of services in the Greek public sector and 2) the connection that service quality and job satisfaction have, in this sector, in order to take corrective actions where necessary. More specifically, this dissertation aims at:

- measuring the perception/ expectation gaps of employees related to service quality using the SERVQUAL model
- examining which of the service quality dimensions predict job satisfaction and loyalty of employees in the Greek public sector.

The methodology for the measurement of the quality of services in the Greek public sector and specifically in the Financial Services, is based on the SERVQUAL model.

Parasuraman et al. (1988) proposed the initial SERVQUAL model, through which service quality could be measured in the private sector. This model is quite important, because it offers the basis and required information for any business type or organization entity to understand how its customers view the offered services and to adopt the appropriate policies and strategies in order to improve the level of services offered. This approach in service quality measurement has been adopted by other researchers (e.g. Munhurrun et al., 2010a&b), who investigated the level of services being perceived by employees, treating the latter as internal customers. In Greece, little effort has been made concerning the public sector and especially the way in which employees perceive the level of services provided by the public service they work in. The SERVQUAL model measures the difference between expectations and perceptions of employees as internal customers of the service and links these differences to employee job satisfaction and loyalty in relation to the organization/service in which they are occupied.

The structure of the dissertation is as follows:

Chapter 1 begins with the introduction and a general description of the research problem, while Chapter 2 presents the literature of service quality, employee satisfaction and loyalty, public sector services and of the SERVQUAL model. Chapter 3 describes the methodology used in this dissertation, while Chapter 4 presents the data analysis. Chapter 5 presents a thorough discussion of the findings, while Chapter 6 summarizes the results of this research. Important theoretical implications with regard to service quality in the Greek public sector and its relevance with employee satisfaction and loyalty are provided, while useful managerial implications are generated based on the findings of the research. Recommendations for improvement, limitations and recommendations for future research are also provided.

2. CHAPTER 2: LITERATURE REVIEW

2.1 SERVICE QUALITY

2.1.1 Characteristics of Services and Difficulties in the Service Supply Process

Service is "the result of activities between a supplier and a client, and the internal activities carried out by the supplier to meet the requirements of the client" (European Academy of Standardization (EURAS), 15th Annual Conference, 2010, p. 6). Services play an important role in the economy, which is evident through their increasing share in GDP (72% in 2006 in developed countries and 52% in developing compared to 65% and 45% in 1990 consequently) (European Academy of Standardization (EURAS), 15th Annual Conference, 2010, p. 4). Parasuraman et al. (1988) mention the characteristics of services which are inseparability, intangibility, heterogeneity and perishability. The most important feature of a service though is its intangible nature and the fact that a service cannot be stored and consumed whenever requested, that is, its perishability. In services, in other words, the production and the consumption process occur simultaneously (de Chernatony and Segal-Horn, 2001). The interaction degree among employees and consumers of the service is significantly high and this makes services sensitive to changes or anomalies coming from the internal or external environment. During the delivery process, for instance, errors can occur due to the high involvement of the "human factor", that is, the involvement of people in the production and the delivery of services (Munhurrun et al., 2010a; Hart et al., 1990; Bowen, 1986). Further, there is heterogeneity in services which is the employee inability to offer high quality of services, or perform well (Akbar et al., 2010, p. 114). The researchers continue and state that this is one of the most important factors that can cause a breakdown in services. This heterogeneity combined with the fact that services require the contribution of the consumer in order to be fulfilled make quality in the service sector a very important and hardly achievable goal. So, it is apparent that services' characteristics make the delivery process difficult, which in turn affects the way employees experience their work especially in the public sector. Other difficulties involve the lack of well- trained workforce, which in Greece is a common phenomenon; the lack of recourses in the public services; absent or very poor monitoring for the produced work; lack of a system that records and evaluates

the performance of employees; low employee commitment and also resistance from employees towards new Total Quality Management programs (Soltani et al., 2010). Soltani et al. (2010) in their study on management of service quality have found that beyond the above difficulties that are pretty much apparent the initiatives that can in fact enhance the quality of services depend a lot on the way managers view them. In the case of public sector, we could say that managers are department supervisors, subdivision heads and directors of service departments.

2.1.2 Importance of the Perceived Service Quality and its Measurement

Many researchers have investigated the impact that quality has in services and the characteristics of service quality. Literature suggests that service quality is the variation between the perceptions of the service being delivered and the performance of the delivered service that customers expect to receive, that is their expectations (Munhurrun et al., 2010a&b; Brady and Cronin, 2001; Hamer et al., 1999; Boulding et al., 1993; Devlin et al., 1993; Lewis and Mitchell, 1990; Parasuraman et al., 1993, 1991, 1988; Gronroos, 1984; Lewis and Booms, 1983).

This study focuses on measuring the service quality level as perceived by employees. Measuring these perceptions can help identify how employees evaluate service quality in their workplace. Moreover, measuring service quality is crucial for an organization, because the knowledge of the level of the delivered service quality and of possible weaknesses provides the organization with the capacity to adopt quality management systems, set and meet strategic goals and satisfy employee needs (Ntungo, 2007). This statement implies that government departments can evolve by applying private sector practices. Parasuraman et al (1988) support the above by regarding service quality as a process of continuous evaluation in the long-run. Measuring service quality can help a service department evaluate its current performance, define problems and weaknesses in quality as mentioned before, and adopt strategies and standards for improving service delivery. This is the way to continuous improvement.

2.1.3 Employees and Service Quality

The way employees experience their work and behave into their working environment determines their opinions about the level of quality in their service department that affects their attitudes. These attitudes can be factored for the evaluation of the quality of services (Brady and Cronin, 2001; Gronroos, 1990). So, their experiences within their work influence, in a negative or positive way their working behavior, something that in turn determines the way they assess the level of quality in their service organization. The way employees behave influences citizens perceptions of service quality and produces the recipients expectations (Bitner, 1990). Logically, a friendly, skilled and willing to help service personnel will serve citizens more effectively and thus the working environment will be more discharged and pleasant. This environment will influence the perceptions of employees on their work and again this will have the relative positive impact on citizen perceptions resulting in a selfsustained process (Schneider et al., 1998). Many researchers highlight the fact that service organizations must give priority to the quality of their services, in order to obtain great financial outcomes (Zeithaml et al., 1996; Rust et al., 1995; Greising, 1994). Under this assumption, Inland Revenue Service can enjoy better outcomes regarding the quality of services delivered, the quality of the working environment and the quality of processes (e.g. workload decongestion) if it invests in improving employee satisfaction (Tzafrir and Gur, 2007).

2.2 SERVICE QUALITY, EMPLOYEE SATISFACTION AND LOYALTY

2.2.1 Service Quality and Satisfaction

Satisfaction is "a function of an initial standard and some perceived discrepancy from the initial reference point" (Oliver, 1980, p. 460). Generally, job satisfaction is an emotional situation resulting from the experiences a person has from his/her job and expresses the degree to which this person either likes the job or not (Brief, 1998; Spector, 1997; Locke, 1976). Dean (2004) believed that organizational concerns such as service quality, loyalty and satisfaction are related to organizational characteristics including communication, training, trust within the organization and other factors that empower a climate of unity, encourage employees and gain their commitment (Lawler et al., 1995; Nadler and Gerstein, 1992; Schneider et al., 1992). Lee and Chang (2008) found that employees who are satisfied tend to be innovative and this tendency results into a great level of service quality. Irving and Montes (2009) state that employee satisfaction and its measurement is very important, because it is linked to the perceptions of employees and it is further related with other attributes such as employee commitment and loyalty. This relationship can result in better outcomes from employees who will try to improve the level of service quality (Pugh et al., 2002; Schneider and Bowen, 1985). In the public sector, the adoption of such systems and a working environment with the characteristics mentioned above, could contribute to better outcomes in terms of workload and employee satisfaction (Tzafrir and Gur, 2007).

Higher employee satisfaction is connected to customer satisfaction (Reichheld and Sasser, 1990). Studies support the view that there is positive relationship between the perceptions of employees and the perceptions of customers regarding service quality (Tzafrir and Gur, 2007; Johnson, 1996; Schneider and Bowen, 1993). Tam (2004) found that there is a positive effect of perceived service quality on customer satisfaction. This can be claimed also for employee satisfaction (Abdullah and Rozario, 2009), a term referring to what employees receive from their job and how they react to what they receive (Wright, 2001). When employee expectations and perceptions are both high and gaps between them are positive and high, soaring

employee satisfaction occurs (Irving and Montes, 2009; Lambert et al., 2003; Edwards and Rothbard, 1999; Locke, 1976). This can more formally be posited: H₁: Employee perceptions of service quality are greater than their expectations.

Thus, it is evident from the existing literature that service quality and employee satisfaction are terms strongly connected (Yee et al., 2008; Babakus et al., 2004; Cronin and Taylor, 1992). Many researchers make clear that service quality and satisfaction though related are not the same. Specifically, service quality is a long-run procedure, an evaluation throughout time, and satisfaction is the sum of everyday interactions between people (Cronin and Taylor, 1992; Bolton and Drew, 1991a; Bitner, 1990; Parasuraman et al., 1988). Oliver (1981) believes that service quality is not the same with satisfaction, but it is a process of continuous evaluation based on everyday interactions. Thus, service quality is strongly connected to employee satisfaction which in turn has positive impact on the deliver of high-quality services by employees (Munhurrun et al., 2010a).

2.2.2 Service Quality, Satisfaction and Loyalty

Researches reveal that service quality is positively correlated with attributes such as trust and loyalty (Ozdemir and Hewett, 2010). Additionally, loyalty can be captured through behavioral intentions (Yang and Peterson, 2004), such as willingness to stay in the service or willingness to recommend the organization as revealed in the Munhurrun et al. (2010a) study. Since employees tend to have positive expectations about their jobs (Irving and Montes, 2009; Louis, 1980), it is difficult for an organization to meet these expectations, which in turn creates negative behaviors and climate in the workplace (Irving and Montes, 2009). Within this context, employee expectations are not met and the possibility that employees will leave the organization is higher (Irving and Montes, 2009). This is particularly intense in the public sector and its bureaucratic context where satisfaction of employees and its link to service quality and loyalty is not a priority (Philippidou et al., 2004). Nevertheless, this event should be a matter of great concern, because satisfied employees are not going to leave their organization easily and loyal employees are more prompt and committed to continuously improving their performance and the level of the service quality they deliver (Silvestro and Cross, 2000).

In addition, a service department, in order to improve service quality, is expected to have a working environment that is described by systems of management that focus on hiring well-trained personnel, gaining their commitment to deliver excellent service, evaluating their performance measured against their outcomes and rewarding them (Johnson, 1996; Schneider and Bowen, 1985; Albrecht and Zemke, 1985). These systems could be enhanced by tangibles such as technologically advanced equipment and measuring gauges (Schneider and Bowen, 1985). The above attributes determine the level of service quality which in turn determines loyalty and satisfaction (Ravichandran et al., 2010). Conversely, satisfaction and loyalty can affect the improvement of service quality (Beatson et al., 2008). Thus, service quality satisfaction and loyalty are measures connected and strongly affecting one another. The aforementioned lead to the following hypotheses:

H₂: Service quality dimensions and loyalty explain satisfaction variation.

H₃: Service quality dimensions and satisfaction explain loyalty variation.

2.3 PUBLIC SECTOR

Services are a significant and increasing pillar of economy and trade worldwide (Lovelock and Wirtz, 2007) measured in terms of GDP. Also, Wright (2001) provides extensive evidence, through literature review, that the public sector duty is to promote social welfare. Thus, the public sector services are a significant part of the economy and society.

Over the last years the bureaucratic structure of public services was shifted into a new customer-oriented one (Sanderson, 1992, p. 7). The measurement and improvement of service quality are based on principles such as transparency and accountability, which will contribute to a more financially healthy public sector (Robinson, 2002). International literature suggests that the emerging management, which is based on organizational policies related to competition or even disaggregation (Rowley, 1998, p. 321), is being introduced into public sector and employees must be adjusted (Caron and Giauque, 2006). The public sector characteristics, such as personal interaction and risk reduction which are key motivators for employees (Berry, 1995) and employee adjustment to the new management style can determine the level of the public sector

services quality (Barney, 2002). This is particularly useful for the public sector services which are expected to measure where they underperform and make efforts for improvement (Cardwell and Bolon, 1996). However, such a procedure might be costly and too commercial for the public sector services (Robinson, 2002). This can be so because as mentioned before, the human factor involves the danger of mistakes which in turn causes complaints and disorganizes service procedures. Risk reduction on the other hand prevents the administration of public services from adopting new managerial techniques which will transform public organizations and reduce state control.

In Greece many efforts have been made in order to reduce State control and restructure the public sector. Most of the efforts were conducted through the implementation of the private sector principles which, as aforementioned, were "translated" into the public service sector with final purpose to make it productive and profitable. Available literature discloses the public sector characteristics which constitute simultaneously the reasons why many efforts towards restructure have failed (Wright, 2001; Skelcher, 1992; Themelis, 1990). For instance, there is resistance to change from both administration and employees, corrupted environment where public services operate, lack of strategic planning, lack of well-trained and qualified employees, incapacity of the administrators to make employees accept change, poor practices during the implementation of transformation programs and lack of problem solving policies (Philippidou et al., 2004). Also, poor mechanisms in order to use effectively the resources which are limited, too much attention on rules and regulations, lack of mission and vision, and absence of performance measurement (Philippidou et al., 2004). In addition, there is lack of available information regarding customer and employee perceptions on services quality and lack of service orientation (Philippidou et al., 2004). Skelcher (1992, p. 464) mentions that public sector is characterized by "political criteria during decision making processes" and the fact that customers are also citizens while in private sector customers have limited influence on the procedures. In addition Skelcher (1992, p. 468) posits that in public services information is poor, the procedures are bureaucratic and the environment in waiting areas is uncomfortable. Wright (2001, p. 560) states that public sector employees are described as "lazy, self-serving and misguided". Despite the fact that employees in the public sector experience better conditions in terms of payment,

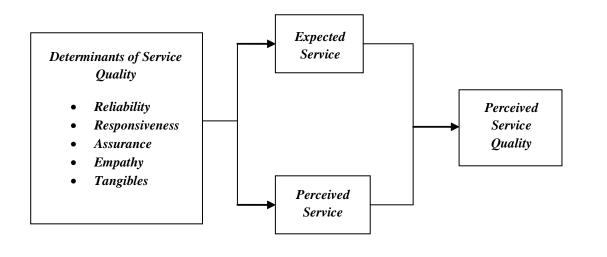
social status, job responsibility and guaranteed employment, they do not enjoy their work and they do not feel comfortable with working conditions and co-worker relations to the same degree that private sector employees do (Wang and Xie, 2008). Public sector generally creates a climate where employees should avoid to do something wrong, rather than a climate where they are encouraged to do things right (Wright, 2001; Behn, 1995; Whorton and Worthley, 1981).

While, Wright (2001, p. 567) suggests that in the public sector "economic indicators of efficiency, such as prices and profits are unavailable", Nwabueze and Mileski (2008) believe that service design is just as crucial for the public sector and it can be done through the appropriate combination of tangibles and other psychological attributes which involve procedures for measuring effectiveness and efficiency. This dissertation will measure the perceptions of employees regarding the level of service quality in public sector services and the relationship between quality, employee satisfaction and loyalty.

2.4 THE SERVQUAL MODEL

Parasuraman et al. (1985, 1988) contribution in the development of the SERVQUAL model is very important. The model is based on the disconfirmation paradigm according to which satisfaction is related to the disconfirmation between a person's experiences and expectations (Parasuraman et al., 1985). In addition, its development is based on processes very similar with Churchill's (1979) paradigm for the improvement of "measures of marketing constructs" (Smith, 1995, p. 258). Parasuraman et al. (1985) identified ten dimensions of service quality after research in four different service industries. These dimensions were: reliability, communication, responsiveness, credibility, security, understanding competence, access, courtesy, and tangibles. These dimensions were reduced to five in their publicized work at 1988, namely the following: reliability, responsiveness, empathy, assurance and tangibles. Chu et al. (2010, p. 539) mention the details of each attribute: tangibles represent equipment; reliability represents commitment to customers, effectiveness in solving problems and timely delivered services; responsiveness stands for prompt services and information to customers; empathy is care for customer problems, understanding and politeness; and finally assurance is trust within the organization, gaining customers trust and the fact that the organization has skilled employees that can answer customers questions. These five attributes are determinants of perceived service quality (Figure 1).

Figure 1: Perceived Service Quality Determinants



Adopted by Parasuraman et al. 1985, p. 48

SERVQUAL is actually a model that captures perceived and expected service quality and measures the "gap" between expected and perceived service. This "gap" according to Smith (1995, p.259), is a measure of service quality. Smith (1995) continues by adding that in 1991 Parasuraman, Zeithaml and Berry revised the model and constructed a new version where several changes were introduced. Specifically, negative statements in the model, which were initially introduced following Churchill's (1979) work, were omitted. Additionally, changes in the wording and in the number of the items made the instrument less confusing and easier for use.

SERVQUAL is a model that has been used, adopted and evaluated by many scholars and thus it can boast high reliability and validity (Chu et al., 2010; Smith, 1995). It has been adopted from researches in many public sector service settings such as: hospital services (Babakus and Mangold, 1992); local authority services (Wisniewski, 2001); public bus transports (Rita and Ganesan, 2010). Hamer (2003, p. 38) mentions that the measurement of service quality as the gap between perceptions of performance and expectations has the following advantages: the high degree of

"diagnostic value" and the "accurate assessment of service quality perceptions". He also mentions as a disadvantage the lack of parsimony due to the big number of items this model involves. However the two advantages offset the disadvantage because they contribute to the scientific background of the model. Also, Parasuraman et al. (1994) state that calculating service quality as the difference between expectations and perceptions could be applied without losing valid information. Hamer (2003) claims that the SERVQUAL is a model that has been designed to fit in every service setting. Expressed reservations involve the fact that every service environment is different (Babakus and Boller, 1992). Nevertheless, the fact that other instruments that measure service quality such as SERVPERF have difficulties as well (Brown et al., 1993; Teas, 1993), combined with the fact that SERVQUAL has been used in a great number of different service settings, in both the private and public sector, with valid results, make it a tool with strong reliability. Cronin and Taylor (1992) believe that SERVPERF (a model that measures service quality through perceptions only and not gaps between perceptions and expectations) has greater validity. However, Parasuraman et al. (1994) found that SERVQUAL performs the same with SERVPERF in terms of validity and according to Carman (1990) SERVQUAL's measuring scale is supported by the procedures of its own development. It is a valid model widely used and also with the potential for benchmarking in service industries (Brysland and Curry, 2001). Jain and Gupta (2004) find that despite the fact that SERVPERF is a more valid method with greater parsimony, SERVQUAL is the one with superior diagnostic value and it can be particularly valuable for managerial implications. Asubonteng et al. (1996) believe that SERVQUAL will continue to be widely used in the assessment of the level of service quality, until another, better tool will be developed.

Therefore, the total number of hypotheses to be tested in this research are as follows:

 \mathbf{H}_1 : Employee perceptions of service quality are greater than their expectations.

H₂: Service quality dimensions and loyalty explain satisfaction variation.

H₃: Service quality dimensions and satisfaction explain loyalty variation.

3. CHAPTER 3: RESEARCH METHODOLOGY

3.1 RESEARCH CONTEXT AND SAMPLE

This chapter describes the methodology used to measure the perceptions and expectations of civil servants in the Greek context. The measurement is based on a SERVOUAL questionnaire that was adopted from Munhurrun et al. (2010a) study. All items included in the questionnaire were translated in the Greek language in order to be comprehensible to the employees. A pilot test was performed with 10 academics and practitioners before the questionnaires were officially distributed to the respondents. The measures of the model were appropriately modified in order to be suitable for this research. For the purposes of the study, therefore questionnaires were released to employees of different job positions (director, head of Division, auditor, administrator), gender, income range and educational level in the local department of Thessaloniki of Financial Services of the Ministry of Economics, Greece. The particular sample has been chosen, because public services in this particular field have the highest workload and are representative of the high degree of interaction between employees and the public (Tambi et al., 2008). Finally, public services in this particular field constitute a primary source of revenues for the State (through tax collection) and also a critical source of expenses for the State since their operating expenses are demanding. Further, the particular public service (Inland Revenue Service) as mentioned above constitutes a primary source of complaints on the part of the customers served. As such, it is extremely interesting and important to gain more insight regarding the way in which services are provided and can be improved in the future.

3.2 SELECTION CRITERIA FOR USING CASE STUDY AS THE BEST APPROACH FOR THIS RESEARCH

A case study is a research method used to provide answers to "how and why questions about a contemporary set of events over which the investigator has little or no control" (Yin, 1994, p. 9). While case studies were regarded as research methods, that lack rigorousness and objectivity comparatively to other research methods, they are widely used and constitute research approaches that allow knowledge acquisition over research questions, where other methods such as bibliographical researches, scientific experiments or reviews are inadequate (Rowley, 2002). Case studies are appropriate for scientific areas where the research is in its early stages and where the existing theory is not adequate (Eisenhardt, 1989, p. 548-549). They can be based on both qualitative and quantitative data or on a combination of multiple primary data sources. This research used quantitative primary data which were acquired through questionnaires. Quantitative methods estimate something that has already happened or measure how often something happened within a specific time period. They also provide a clear distinction between facts and judgements compared to qualitative that are based on data collection from people where the involvement of the researcher is higher (Padgett, 2009). The absence of high personal involvement of the researcher in quantitative research can provide more unbiased results.

3.3 THE QUESTIONNAIRE

The research method used to collect data for the purposes of this study was a questionnaire, which is a popular method when a researcher wants to collect primary data that can be quantitative or qualitative (Christou, 1999). A questionnaire can cover different kinds of data like demographic and behavioral as well as intentions and propositions (Ambrose and Anstey, 2010). The purpose of the questionnaire in this research was to assess employee opinions regarding the service quality dimensions and the extent to which they are satisfied with and are loyal to the existing situation they experience in their working environment. All items in the questionnaire were adopted by the work of Munhurrun et al. (2010a), where a SERVQUAL model has been designed in order to measure service quality in a call center located in Mauritius. The questionnaire was adapted for the purposes of a study in the public services sector

in Greece. Specifically, 19 items regarding service quality dimensions, in the questionnaire have been acquired from the study of Munhurrun et al. (2010a), chosen out of the 22 items that were included in the initial SERVQUAL model of Parasuraman et al. (1985) which includes five dimensions of service quality. These dimensions are responsiveness, reliability, assurance, empathy and tangibles, constituting the key dimensions of service quality in the current study (see appendices). An initial pilot test was performed and questionnaires were distributed to academics and practitioners in order to examine the content, reliability and validity of it. In accordance, there were changes in the wording of the questions and a question that determines the loyalty variable was omitted in order to ensure greater congruence with the fact that the research was based on the public sector.

The first part of the questionnaire (Part A) includes general instructions and questions with regard to demographic characteristics of the respondents. These questions, taken from Munhurrun et al. (2010a), were modified in order to be suitable for Greek employees in the public sector. These modifications were conducted in the categories: job position into the service department; level of income; level of education (see appendices).

This specific questionnaire was used because it is a tested and valid approach in order to measure service quality in the field of services. The questionnaire consists of three columns. In the middle column there are questions-statements that describe the five dimensions of Parasuraman et al. (1985 and 1988) as they were discussed above. The column on the left side measures the expectations that employees have from an excellent service and on the right column the perceptions employees have from the service currently provided. The measurement is based on a five-point Likert-type: "1= strongly disagree 2=disagree 3=neither disagree nor agree 4= agree 5= strongly agree", as also used by Munhurrun et al. (2010a&b); Johns et al. (2004); Babakus and Mangold, (1992). There is controversy in the literature regarding the type of data Likert scale produces (Carifio and Perla, 2008). This controversy focuses on whether data are equally spaced (interval) or unequally spaced that can be ordered (ordinal). Since it has been shown that there is no statistical inconsistency in treating the data as interval using Likert scale (Madsen, 1989), in this study Likert scale was used and the data were treated as interval.

In the last section of the questionnaire, two more dimensions are included: employee satisfaction and loyalty, drawing on the Munhurrun et al. (2010a) work. However, the latter dimension, "loyalty", was adapted and only one parameter-question was added in it. This was done in order to adjust the appropriateness of the question to the standards of the public sector where loyalty can better be described by the intent to stay rather than apply to be transferred to another service. More specifically, only the item "I do intend to stay in my service and not to be transferred to another one" was included to capture the dimension pertaining to "loyalty". The question "I will recommend this company/service to someone who seeks my advice" that is the second in the variable "loyalty" in Munhurrun et al. (2010a) questionnaire was excluded, because in public services, the hiring procedures are usually based on exams, which take place rarely (perhaps every 3-4 years) and the time period between exams is quite extended.

3.4 THE PROCESS

The questionnaires were distributed to the employees in the period of June-July 2010. A pre-test as mentioned before indicated that the questionnaires were understandable and small adjustments were made with regard to the expression of the content of the questionnaire. From the 145 questionnaires that were distributed, 80 were collected. However, 70 were used for the purposes of the research as the rest were deemed inappropriate for statistical analysis, due to some unanswered questions included. Thus, the actual response rate amounts to 48.28%. The responses were analyzed with the aid of the statistical software SPSS 18 for Windows and paired t-tests were conducted in order to measure the service quality level of the financial services provided by the public sector. This analysis was based on gaps between perceptions and expectations of the employees as they were rated according to the answers provided by the respondents. The gaps between perceptions and expectations were calculated for each item of each service quality dimension. Gaps were also calculated for the dimensions in total using the unweighted means of the items of each dimension and for satisfaction and loyalty single-item scales. Paired t-tests for the gaps were performed in order to identify whether the gap mean differences were statistically important. Finally, in order to evaluate and measure the degree to which the dimensions of the model predict the variation of the variables "satisfaction" and "loyalty", two regression analysis models were performed. In the first model independent variables were the service quality five dimensions and the dependent variable was satisfaction. In the second model independent variables were the service quality five dimensions and satisfaction and the dependent variable was loyalty. Correlations were calculated in order to identify a connection between service quality dimensions, satisfaction and loyalty. The correlation analysis revealed strong connection between loyalty and satisfaction which led to an additional regression model in order to test better the variation of satisfaction. The independent variables were service quality dimensions and loyalty and the dependent variable was satisfaction. This model aimed at identifying whether the independent variables predict significantly the attribute "satisfaction".

4. CHAPTER 4: DATA ANALYSIS

4.1 RELIABILITY TEST

The reliability of the SERVQUAL model scale and the consistency of its dimensions, were tested using the *Cronbach's a* variable for the perceptions and the expectations of each dimension. The reliability scores are illustrated on Table 1. The reliability analysis has shown that the SERVQUAL instrument is satisfactory for public sector service setting. Specifically, the analysis revealed that *Cronbach's a* values range from 0.55 to 0.85 for employees of public sector services. Thus, the minimum requirement level of acceptable reliability is fulfilled, since reliability coefficients from 0.50 and above are considered sufficient (Nunnally, 1994). These values suggest that the measures have the desirable level of internal consistency. Therefore, all the items of the model contribute positively to the improvement of its reliability and the model seems to fit the data reasonably.

Table 1: Reliability Scores of SERVQUAL

Dimensions	Expectations (E)	Perceptions (P)
Reliability	0,6391	0,7336
Responsiveness	0,5938	0,5925
Assurance	0,5980	0,6296
Empathy	0,5518	0,5021
Tangibles	0,8581	0,8412

Table 1 presents Cronbach's a values for public sector employee expectations and perceptions. Reliability coefficients greater than or equal to 0.50 are sufficient (Nunally, 1994).

4.2 DESCRIPTIVE STATISTICS

The research findings reveal that the sample of employees consisted of 52.9% females and 47.1% males. Regarding the marital status, 70% of the respondents are married and only 30% are either single of divorced. In the questionnaire, the age variable is classified in four groups (see appendices). With respect to age, 45.7% of the population fell into the 46-55 age group, which is the respondents' highest proportion

followed by the 36-45 age group, which represents the 28.6% of the population. The age group of 26-35 and over 55 years follow with 12.9% respectively. The education variable is categorized in four groups (high school, university, master and PhD diploma) (see appendices). Approximately 68% of the respondents are university graduates, 24.3% are high school graduates and only 7.1% hold a master diploma. Regarding the employees' years of service 77.1% have been in service for more than 10 years followed by 11.4% for 3 to 5 years and 10% for 5 to 10 years of service. Only 1.4% have been working for 1 to 3 years. Regarding the respondents' position, 51.4% are auditors, 31.4% are administrators and 17.1% hold senior hierarchical positions, such as directors, subdivision heads and department supervisors. The income variable is categorized in the questionnaire in four groups (see appendices). The findings reveal that half of the sample (50%) earn between 2100-2500 Euros and 2.9% between 1100-1500 Euros.

4.3 DATA ANALYSIS OF SERVICE QUALITY

Table 2 illustrates the means and the corresponding standard deviations of expectations, perceptions, and the differences between them, for the five dimensions of service quality and for satisfaction and loyalty variables additionally. The gap scores of each variable were calculated as the differences (variations) between the perceptions mean and expectations mean for each dimension. Negative gaps indicate that employee perceptions of service quality where below their expectations. Additionally, the gap score for tangibles (-2.93) is significantly higher than the rest of the service quality dimensions. Assurance, responsiveness, empathy and reliability follow with gap scores (-1.62), (-1.61), (-1.50) and (-1.43) respectively. Satisfaction has a greater gap between perceptions and expectations than loyalty.

Paired t-tests and t-statistics were conducted to test the statistical significance of the differences between expectations and perceptions, regarding the variables of reliability, responsiveness, assurance, empathy, tangibles, satisfaction and loyalty. The findings indicate statistically significant differences in:

- reliability with t(69) = -18.24, p< 0.001
- responsiveness with t(69) = -18.02, p< 0.001

- assurance with t(69) = -19.48, p<0.001
- empathy with t(69) = -18.67, p< 0.001
- tangibles with t(69) = -30.53, p<0.001
- satisfaction with t(69) = -22.27, p< 0.001
- loyalty with t(69) = -9.57, p < 0.001

The overall gap score (-1.61) was statistically significantly different with t(69)=-30.13, p<0.001. This result indicates that overall, employee perceptions of service quality were significantly lower than their expectations.

Table 2: Expectations' and Perceptions' Gap Mean differences and Paired t-tests

Dimensions	Expect Scores	ation	Percep Scores		Gap (P-E)	Scores	t-value
	Mean	SD	Mean	SD	Mean	SD	
Reliability When we promise to do something by a certain time, we do so	4.37 4.34	0.33 0.50	2.94 3.00	0.55 0.81	-1.43 -1.34	0.65 0.99	-18.24*** -11.33***
We show sincere interest on solving citizens' problems	4.54	0.50	3.08	0.81	-1.45	0.91	-13.37***
We perform services right the first time	4.18	0.54	2.78	0.69	-1.40	0.85	-13.65***
We provide services at the time required/ promised	4.10	0.59	2.57	0.69	-1.52	0.89	-14.26***
We provide correct /accurate information to citizens	4.70	0.46	3.27	0.93	-1.42	0.98	-12.12***
Responsiveness We provide prompt services to citizens	4.41 4.58	0.44 0.49	2.80 2.88	0.57 0.67	-1.61 -1.70	0.75 0.89	-18.02*** -15.97***
We are always willing to help citizens	4.65	0.47	3.18	0.88	-1.47	1.04	-11.77***
We are never too busy to respond to citizens' requests	4.01	0.78	2.32	0.75	-1.68	1.08	-13.01***
Assurance Citizens' behavior instill confidence in us	4.36 4.14	0.41 0.70	2.74 2.22	0.53 0.72	-1.62 -1.91	0.69 1.04	-19.48 *** -15.31***
We can be trusted by citizens	4.38	0.64	2.54	0.77	-1.84	1.002	-15.38***
We are consistently courteous to citizens	4.52	0.55	3.25	0.86	-1.27	0.97	-10.89***
We have the required knowledge to answer citizens' questions	4.41	0.55	2.94	0.75	-1.47	0.91	-13.49***
Empathy We give individual attention to citizens	4.33 4.41	0.40 0.55	2.83 2.92	0.52 0.80	-1.50 -1.48	0.67 0.89	-18.67*** -13.86***
We have citizens' best interest at heart	4.20	0.67	2.68	0.73	-1.51	0.88	-14.39***
We understand the specific needs of citizens	4.48	0.58	2.91	0.77	-1.57	0.92	-14.20***
We have convenient working hours	4.24	0.66	2.80	0.98	-1.44	1.16	-10.38***
Tangibles We have up-to-date equipment	4.55 4.61	0.50 0.59	1.61 1.77	0.57 0.66	-2.93 -2.84	0.80 0.84	-30.53*** -28.14***
The materials used in the workplace are visually appealing	4.51	0.58	1.57	0.64	-2.94	0.97	-25.21***
The working environment is comfortable and attractive	4.52	0.53	1.51	0.65	-3.01	0.92	-27.27***
Overall Service Quality (combined Scores from all items)	4.41	0.28	2.65	0.37	-1.61	0.45	-30.13***
Satisfaction Overall I am satisfied with the services, the service department I work offers	4.52	0.50	2.30	0.62	-2.22	-0.83	-22.27***
Loyalty I intend to stay in this service department and not to apply for transfer to another	4.57	0.55	3.25	0.94	-1.31	-1.14	-9.57***

Table 2 (adapted from Munhurrun et al., 2010a) illustrates public sector employees (unweighted) means and standard deviations of expectations, perceptions and gap scores regarding the five dimensions of the SERVQUAL model. Gap Mean= Perceptions Mean-Expectations Mean.. SD= Standard Deviation.***Significant level at p<0.001.

In order to examine the degree to which reliability, responsiveness, assurance, empathy, tangibles, satisfaction and loyalty are connected, correlations were computed for expectations and perceptions separately.

Table 3: Correlations of Expectations

	EX_SAT	EX_LOY	EX_REL	EX_RES	EX_ASS	EX_EM	EX_TAN
EX_SAT	1.000						
EX_LOY	0.670**	1.000					
EX_REL	0.202	0.174	1.000				
EX_RES	0.288*	0.208	0.387**	1.000			
EX_ASS	0.183	0.254*	0.463**	0.378**	1.000		
EX_EM	0.236*	0.214	0.373**	0.383**	0.400**	1.000	
EX_TAN	0.566**	0.497**	0.171	0.293*	0.330**	0.255*	1.000

^{**} Correlation is significant at the 0.01 level (2-tailed).

The findings reveal that:

With regard to expectations,

a statistically significant correlation has been established between the following:

- Satisfaction and loyalty and tangibles.
- Loyalty and tangibles.
- Reliability and responsiveness, assurance and empathy.
- Responsiveness and assurance and empathy.
- Assurance and empathy and tangibles.

^{*}Correlation is significant at the 0.05 level (2-tailed).

Table 4: Correlations of Perceptions

	DED GAM	DED LOW	DED DEI	DED DEG	DED AGG	DED EM	DED TAN
	PER_SAT	PER_LOY	PER_REL	PER_RES	PER_ASS	PER_EM	PER_TAN
PER_SAT	1.000						
PER_LOY	0.410**	1.000					
PER_REL	0.236*	0.295**	1.000				
PER_RES	0.291*	0.291*	0.551**	1.000			
PER_ASS	0.201	0.146	0.137	0.439**	1.000		
PER_EM	0.389**	0.315**	0.459**	0.576**	0.495**	1.000	
PER_TAN	0.218	0.140	0.031	0.122	0.254*	0.086	1.000

^{**} Correlation is significant at the 0.01 level (2-tailed).

The findings reveal that:

With regard to perceptions,

a statistically significant correlation has been established between the following:

- Satisfaction and loyalty and empathy.
- Loyalty and reliability and empathy.
- Reliability and responsiveness and empathy.
- Responsiveness and assurance and empathy.
- Assurance and empathy.

4.4 REGRESSION ANALYSIS

In order to examine the predictability of satisfaction from reliability, responsiveness, assurance, empathy and tangibles, regression analysis was used. For the first regression model the dependent variable was satisfaction and the independent variables were the five dimensions of service quality. The regressions analysis R was 0.44 which is statistically significantly different from zero, F(5, 64) = 3.978, p<0.05. Overall, 19.4% of variation in satisfaction can be predicted by reliability, responsiveness, assurance, empathy and tangibles (see table 5). The results indicate

^{*}Correlation is significant at the 0.05 level (2-tailed).

that only two of the service quality dimensions contributed significantly to the prediction of satisfaction. Empathy explained 5% of the variation with Beta= 0.26, (t= 1.91, p<0.05) and tangibles explained 12% of the variation with Beta= 0.38, (t= 3.08, p<0.01). The two independent variables (empathy and tangibles) jointly explained 2.4% of the total variation. Responsiveness and assurance appear to have negative unstandardized B coefficients which indicates decreasing level of satisfaction. On the contrary reliability, empathy and tangibles have positive unstandardized B coefficients.

Table 5: Regression Analysis for employee satisfaction variation

Independent Variable	Coefficient ^a	Beta	t-values
(Constant)	1.614		2.437
Reliability	0.092	0.77	0.591
Responsiveness	-0.055	-0.051	-0.367
Assurance	-0.196	-0.170	-1.234
Empathy	0.307	0.264	1.916*
Tangibles	0.407	0.384	3.084**

Note: $R^2 = 0.194$; ** Significant at 0.01 level; * Significant at 0.05 level

Table 5 illustrates the regression analysis results of the service quality dimensions on employee satisfaction; a= unstandardized B coefficients.

Satisfaction and loyalty were found to be significantly correlated (see tables 3 and 4). To the best of my knowledge loyalty has not been included as an explanatory independent variable of the regression model in the research of Munhurrun et al. (2010a). Thus, in order to examine further the predictability of satisfaction from loyalty and the service quality dimensions, the regression analysis was repeated. Satisfaction was the dependent variable and the service quality five dimensions and loyalty served as independent variables.

R was 0.56 which is statistically significantly different from zero F(6, 63)=4.81, p<0.001. Overall, 31.4% of the variation of satisfaction can be predicted by reliability, responsiveness, assurance, empathy, tangibles and loyalty (see table 6). R^2 adjusted was 24.9% whereas in the first model it was 13.1%. R^2 and R^2 adjusted were greater in the model with loyalty as independent variable. This suggests that loyalty increases the explanatory value of the model. The results indicate that three dimensions

(empathy, tangibles and loyalty) contributed significantly to the prediction of satisfaction. Empathy explained 3% of the variation of satisfaction with Beta= 0.22, (t=1.73, p<0.05), tangibles explained 10.7% of the variation with Beta= 0.36, (t=3.14, p<0.01). Loyalty explained 12% of the variation with Beta= 0.35, (t=3.33, p<0.01). The three independent variables (empathy, tangibles and loyalty) jointly explained 5.7% of the total variation. From this regression model we can observe that loyalty actually explains with statistical significance the variation of satisfaction.

Table 6: Regression Analysis for employee satisfaction variation (loyalty is independent variable in the model)

Independent Variable	Coefficient ^a	Beta	t-values
(Constant)	0.976		1.514
Reliability	0.02	0.018	0.143
Responsiveness	-0.008	-0.008	-0.059
Assurance	-0.211	-0.184	-1.435
Empathy	0.259	0.223	1.730*
Tangibles	0.385	0.363	3.140**
Loyalty	0.262	0.356	3.330**

Note: $R^2 = 0.314$; ** Significant at 0.01 level; * Significant at 0.05 level

Table 6 illustrates the regression analysis results of the service quality dimensions and loyalty on employee satisfaction; a= unstandardized B coefficients.

A regression model was run in order to examine the predictability of the dependent variable loyalty from the independent variables reliability, responsibility, assurance, empathy, tangibles and satisfaction. The regression analysis R was 0.43 which is statistically significantly different from zero, F(6, 63) = 2.5, p < 0.05. Overall, 19.3% of the variation of loyalty could be explained by satisfaction with Beta= 0.42 and t= 3.33, p < 0.01, since only this variable was a significant predictor of the dependent variable loyalty (see table 7).

Table 7: Regression Analysis for loyalty variation

Independent Variable	Coefficient ^a	Beta	t-values
(Constant)	1.513		1.592
Reliability	0.219	0.77	1.020
Responsiveness	-0.146	-0.051	-0.713
Assurance	0.172	-0.170	0.784
Empathy	0.008	0.264	0.038
Tangibles	-0.151	0.384	-0.777
Satisfaction	0.571	0.420	3.330**

Note: R^2 = 0.193; ** Significant at 0.01 level
Table 7 illustrates the regression analysis results of the service quality dimensions and satisfaction on employee loyalty; a= unstandardized B coefficients.

5. CHAPTER 5: DISCUSSION

Chapter 5 aims at examining the relationships between the five dimensions of service quality, employee satisfaction and their predictive power over the loyalty of public sector services employees. In this research the items included in the SERVQUAL questionnaire were adopted from Munhurrun et al. (2010a), who used Parasuraman et al. (1985) SERVQUAL model after modification of its items in order to assess their research service setting. The poor literature on the field of public services quality and satisfaction in Greek service settings makes this research an important (though not distinct), contribution to the public services quality scientific knowledge through the research questions this survey raised and answered. The results suggest the quality elements that can increase employee satisfaction and the level of service quality. They can also be beneficial for the administrators of the public sector (Inland Revenue Service) to make the right decisions when they devote significant portion of resources to the improvement of the internal service setting.

In the next paragraphs, the research hypotheses are going to be supported or not and the relative research questions and findings are going to be analyzed in order of appearance and with reference to the literature presented in the relative chapter. The research hypotheses testing results are illustrated in the following table:

Table 8: Hypothesis Testing Results

Hypothesis	Description	Result
H_1	Perceptions>Expectations	Not Supported
H_2	SERVQUAL dimensions+ Loyalty Satisfaction	Partially Supported
H_3	SERVQUAL dimensions+ Satisfaction → Loyalty	Partially Supported

Adapted by Lassk et al. (2004), p. 101.

5.1 DISCUSSION OF THE FINDINGS

5.1.1 Discussion of the First Research Question- H₁: Employee Perceptions of Service Quality, Satisfaction and Loyalty are Greater than their Expectations.

Data analysis showed that public sector employee perceptions of service quality, were lower than their expectations. This indicates that, employee expectations of service quality, satisfaction and loyalty were not being met which does not provide support for hypothesis 1, at p<0.001 statistical level (Table 2). The gaps between perceptions and expectations were negative and statistically significant at p<0.001 which revealed that public sector perceived service quality (in the specific service setting of the Inland Revenue Service), is poor. Other researchers have found that service quality dimensions presented gaps implying that quality needs improvement in several attributes different in every service setting (Rita and Ganesan, 2010; Nejatia et al., 2007). The aforementioned statement suggests that the administration of public service sector (in the specific service setting), could focus on narrowing the variation between perceptions and expectations in order to achieve a superior service quality level and improve the effectiveness of each department.

5.1.1.1 The Dimension "tangibles"

The service quality dimensions that showed the greater mean differences between employee perceptions and expectations, were tangibles and assurance followed by responsiveness, empathy and reliability. Regarding the dimension "tangibles" employee perceptions were not being met in relation to the comfort and attractiveness of their working environment. The results also showed great gaps between perceptions and expectations, regarding the same dimension, in the items of "we have up-to-date equipment" and "the materials used in the workplace are visually appealing". Overall, employee expectations regarding the dimension "tangibles" were not being met indicating that employees are dissatisfied with the current condition of the equipment, the materials and the furniture in their service departments. This is an observed phenomenon, especially in Greek public services where the resources constraints (Soltani et al., 2010) and the poor mechanisms in order to use the limited resources effectively (Philippidou et al., 2004) do not serve in

favor of improvement of public sector service quality. The resources constraints which set obstacles to the development of an appealing working environment could be explained by the unfavorable financial position of Greece and the dysfunctional and money-consuming Greek public sector (Atkins, 2010). As presented in the introductory chapter and in the literature review the appropriate working environment produces efficient outcomes in terms of employee performance (Nejatia et al., 2007; Lusch and Serpkenci, 1990; Kelly et al., 1981). In a working environment which is up-to-date equipped and appealing, employee job satisfaction is higher and employees are more committed (Dean, 2004; Brief, 1998; Lawler et al., 1995), as presented in 2.2 subchapter of the literature review.

5.1.1.2 The Dimension "assurance"

The "assurance" dimension presented the second greater gap between perceptions and expectations. The items with the greater gaps were "citizens' behavior instill confidence in us" followed by the item "we can be trusted by citizens". Employee expectations regarding these items were not being met because in service procedures where the interaction degree between employees and customers and the possibility for mistakes in the service delivery process are both significantly high (as analyzed in 2.1), a service breakdown can occur (Akbar et al., 2010). All these, are common citizens beliefs towards public sector employees, which combined with the fact that public sector employees are regarded as "lazy" and "non-productive" or even "selfserving" (Wright, 2001, p. 560), indicate that citizens present the tendency to mistrust public sector employees and demonstrate a behavior that does not instill confidence towards them. This is reasonable because in public sector services, where procedures are bureaucratic and information flow is poor (Skelcher, 1992), citizens are more likely to mistrust employees. The other two items of the "assurance" dimension; specifically "we have the required knowledge to answer citizens' questions" and "we are consistently courteous to citizens" present negative but lower gaps between perception and expectations compared with the previous two. This could be explained by the fact that employees do not admit easily their potential lack of knowledge or that they are not courteous enough to citizens. The fact that they hold higher job responsibility positions than employees of private sector (Wang and Xie, 2008) and the fact that the majority of them are university graduates (68% in this service settingpresented in 4.2), might be functioning as factors that make employees believe they possess adequate knowledge to serve citizens. This explains the relative lower negative gaps between perceptions and expectations compared to the other items of "assurance". However, these gaps are negative which indicates that their expectations were unmet something supported by the literature which suggests that there is lack of well-trained and qualified employees in the public sector (Philippidou et al., 2004).

5.1.1.3 The Dimension "responsiveness"

The greatest gaps regarding "responsiveness" were in the items "we provide prompt services to citizens" and "we are never too busy to respond to citizens' requests". An also negative but relatively lower gap was in the item "we are always willing to help citizens". Public sector employees, though willing to help citizens with their financial affairs, are constrained by time and resource limitations as discussed above. Their already increased workload (Tambi et al., 2008), justifies the statistically significant negative gap in the item "we are never too busy to respond to citizens' requests", meaning that they in fact are busy to correspond to the appropriate rate to citizens requests. The fact that employees are willing to help citizens (lower negative gaps between perceptions and expectations in the relative item) can make their work more effective and contribute to a more discharged and pleasant environment which will be more organized and productive (see 2.1.3). This situation can be prevented by the aforementioned resource constraints both in tangibles and in well-trained staff that can confront any possible service delivery problem or breakdown.

5.1.1.4 The Dimension "empathy"

Statistically significant negative gaps in this dimension highlight the fact that employee perceptions were not being met in the framework of empathy towards citizens needs. Employees were not satisfied with the level of their department's service quality in terms of empathy towards citizens needs. The items "we understand the specific needs of citizens" and "we have citizens' best interest at heart" have the greater negative gaps followed by the items "we give individual attention to citizens" and "we have convenient working hours". The first two items with the greater

negative gaps reveal the failed effort of public sector to understand the fact that citizens are in uncomfortable and disadvantaged position when requested to transact with the public in order to pay taxes or when they have to dedicate their personal time for bureaucratic procedures. While it would be expected that employees would have lower negative gaps or even positive in terms of empathy towards citizens problems meaning that they believe their services involve empathy, they demonstrated a completely different behavior. In fact, employees do seem to understand that public service departments do not perform well in terms of understanding the uncomfortable situation citizens are involved in. The last two items are not much different from the first two in rating indicating that employees believe that the working hours of their service department are not satisfactory and that the public sector fails to provide individual attention to citizens. This is connected to the fact that public sector is characterized by lack of resources, mission and vision, and attention on rules and regulations (Philippidou et al., 2004), bureaucracy (Skelcher, 1992), and failed efforts for restructuring public sector in order to make it more quality and customer oriented (Wright, 2001; Themelis, 1990).

5.1.1.5 The Dimension "reliability"

This dimension presented the smaller negative gaps between employee perceptions and expectations. Further, it presented similar breadth of rating with the dimension "empathy". These two dimensions were also found to be statistically significantly correlated for both perceptions and expectations. The items of this dimension that can be described generally by in time service, sincere interest on solving citizens problems and accurate information to citizens have content and rating that reveal similar employees' approach with "empathy's" items. Public sector services (in the specific service setting of the Inland Revenue Service) fail to provide in time services when the latter are requested which could be connected with the public sector workload congestion (Tambi et al., 2008). Employee expectations were also not being met concerning the item "we provide correct/accurate information to citizens" which is in accordance with the literature where public services are presented as lacking accurate and correct information (Skelcher, 1992).

5.1.1.6 Overall Service Quality, Satisfaction and Loyalty

Overall, service quality was poor since the gap between employee perceptions and expectations was negative and statistically significant at p<0.001 and, therefore, employee expectations for all the service quality dimensions were not being met. Irving and Montes (2009) and Louis (1980) believe that employee expectations about their jobs are usually positive. Thus, it is difficult for an organization to meet these expectations (Irving and Montes, 2009). This is reflected on the negative gaps which overall service quality, satisfaction and loyalty presented meaning that public sector employees regard their departments as offering services of poor quality. They are not satisfied with the current situation and they are prompt to request to be transferred to another organization which verifies what Irving and Montes (2009) suggested (see 2.2.2). However, the fact that loyalty presented the smallest negative gap between perceptions and expectations might be due to the fact that employees of Greek public sector do not feel comfort to leave their jobs in the unstable and unsecured environment of the Greek economy. All these remarks, explain why public sector services are characterized from inadequate communication, equipment (tangibles), and other attributes such as assurance, empathy, responsiveness and reliability.

5.1.2 Discussion of the Second Research Question- H₂: Service Quality Dimensions and Loyalty explain Satisfaction Variation.

For the purposes of this hypothesis two regression models were run. In the first, loyalty was not used as an independent variable. The correlation coefficients for expectations and perceptions showed a significant correlation between satisfaction and loyalty at the 0.01 level. This result has made a compelling case for a second regression model in order to examine further the predictability of satisfaction from service quality dimensions and loyalty. In the second regression model, which is more integrated due to its greater explanatory value (see 4.4), two out of five service quality dimensions (empathy and tangibles) and loyalty explain satisfaction variation. So, hypothesis 2 is partially supported. Loyalty is more important than the service quality dimensions since it explains more significantly in statistical terms the variation of satisfaction. It is correlated to satisfaction something that verifies the literature where these two attributes are presented to be strongly connected (Irving and Montes, 2009;

Silvestro and Cross, 2000) resulting that loyalty is a measure of how satisfied employees are with their jobs. There is also the possibility that in the particular service setting of the Inland Revenue Service employees are more privileged than civil servants in other services regarding payments, bonuses and status. In addition, it is relatively hard in times of recession (Atkins, 2010) to change job or service. The aforementioned facts urge employees to stay in their departments (loyalty), trying to be as much satisfied as possible with the existing condition. Empathy and tangibles were found to explain significantly the satisfaction variation as well. Satisfaction is correlated with empathy and tangibles regarding employee expectations (Table 3). This statement suggests that attributes such as advanced and appealing equipment (tangibles) and empathy towards citizens problems which determine the level of service quality (Table 2) determine also employee satisfaction (Ravichandran et al., 2010). Philippidou et al. (2004) state that employee satisfaction and its link to service quality and loyalty is not a priority in the public sector where focus on improvement of service quality dimensions should be a priority in order to have satisfied employees. Indeed there was no correlation between satisfaction and tangibles regarding perceptions indicating that employees perceived an unsatisfactory condition in the equipment in their service departments.

5.1.3 Discussion of the Third Research Question- H3: Service Quality Dimensions and Satisfaction explain Loyalty Variation.

In the regression model that was conducted in order to identify the predictability of service quality dimensions and satisfaction over loyalty only satisfaction was found to be an important predictor of loyalty. Thus, hypothesis 3 is partially supported. Irving and Montes (2009) suggest that satisfaction is linked to employee perceptions (that is the way they experience their work), and it is further related with employee commitment and loyalty (in this service setting loyalty is being translated into avoidance of transferring to another service).

In services with organizational attributes including communication, training, trust, climate of unity and pleasant environment (i.e. service quality) employees are satisfied (Lawler et al., 1995; Nadler and Gerstein, 1992). Satisfied employees produce better results, are more innovative and thus service quality is being improved

(Lee and Chang, 2008). So, service quality dimensions (reliability, responsibility, assurance, empathy and tangibles) do not predict directly employee loyalty but determine their satisfaction and other attributes such as trust and communication which make them loyal to their department and motivate them to improve their performance. This behavioral sequence leads to better service quality and since this is linked to satisfaction and loyalty, it leads to the improvement of these attributes too.

6. CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 CONCLUSION

The aim of this dissertation was to measure the service quality level in the Greek public sector through employee perceptions, which is a challenging field. The study utilized regression analysis in order to enrich the understanding of the attributes and to identify the areas where managers of the Inland Revenue Service and of other service departments could focus in order to improve performance and thus gain a direct positive result on employee satisfaction and loyalty. The present study did not aim at developing potential new research instruments or testing the existing theory.

The data required for this study were acquired in Thessaloniki, Greece during a 2 month period, June- July 2010, through questionnaires (see appendices) that were distributed to the employees of the Financial Services of Greece (Inland Revenue Service) of the Ministry of Economics. Into the context of this dissertation, research questions were developed in order to identify and examine potential relationships between the attributes of the hypotheses being investigated. The analysis of the primary data (through SPSS statistical package), led to the following conclusions which are generally consistent with the literature as presented in discussion:

- The five dimension SERVQUAL scale is reasonably valid for the Greek public sector environment and it could be applied in other service industries.
- The service quality negative gaps indicate that the Greek public sector service department failed to meet employee expectations. Specifically, the dimension "tangibles" and "assurance" had the greater negative gaps followed by "responsiveness", "empathy" and "reliability".
- Overall, the level of perceived service quality is poor, indicating that the gaps between perceptions and expectations should be reduced.

- Two service quality dimensions (empathy and tangibles) and loyalty were found to be significantly (positively) related to employee satisfaction.
- Employee satisfaction was found to account for loyalty variation.

The analysis indicates that public sector services forfeit up-to-date, comfortable and appealing equipment ("tangibles") and also well-trained and qualified employees. Employees do not have, in an environment with these characteristics, the courage and the time to devote in order to provide in time services ("reliability", "responsiveness"), care for citizens problems ("empathy") and correct and adequate information to citizens ("assurance"). Therefore, employee satisfaction is negatively affected, a case which can create an unpleasant and disorganized climate in the service department. As a consequence employees might not be committed and productive or, though willing to offer and serve citizens, they are constrained by limitations of resources.

6.2 RECOMMENDATIONS FOR IMPROVEMENT

SERVQUAL model can enable public sector administrators to measure the functional quality of their service departments and improve it by reducing the greater gaps in service quality dimensions. The service delivery process could be adapted to meet employee expectations (Parasuraman et al., 1985). They can also evaluate quality in different time periods or before and after a new monitoring or reward system has been applied in the service. Therefore, they will be able to identify whether functional quality was improved and which are the attributes that influence to a greater extent service quality and employee satisfaction. It will enable the public sector administration to understand employee expectations and needs and solve underlying problems resulting from service quality dimensions negative gaps. The measurement of employee perceptions and expectations and the gaps between them provide an insight concerning problems that in the service setting of this study entail the lack of qualified employees with adequate training; the lack of assurance in procedures that are bureaucratic; the lack of reliability and employee responsiveness; and the disorganized environment that fosters mistrust and employee dissatisfaction. Public

sector financial services (Inland Revenue Service) could focus on acquiring advanced equipment, creating comfortable working environments and also provide training that focuses on employee ability to provide prompt, reliable and correct services. They could also motivate employees to show empathy towards citizens problems, to be courteous, to provide the service they promise and not just perform their work "mechanically". Employees could be motivated to improve their skills in order to correspond to their tasks fast and accurately. All these can improve public sector service quality and gain the taxpayers trust, since employee perceptions of service quality and employee satisfaction were found to be connected with customers/citizens satisfaction and perceptions of service quality (Reichheld and Sasser, 1990). In other service settings the problems could be identified in different dimensions, or positive gaps could be observed proving that service quality presents no shortfalls and that SERVQUAL model could be used in order to monitor effective and problematic environments as well.

6.3 LIMITATIONS AND FUTURE RESEARCH

The limitations of this research are that it was conducted for one specific service department of the Greek public sector and it would be arbitrary to generalize these findings for other public service departments without in depth analysis. This model could also be used in other locations in Greece, in other industries, and it could be used for the measurement of customer perceptions regarding service quality for the Inland Revenue Service or for other public sector departments. The SERVQUAL model validity in other service settings could be tested with multiple reliability and validity measures. Future research could also use a different model in order to measure functional quality of a service department such as SERVPERF and SERVQUAL and comparisons could be performed. In addition, the study used singleitem measures for employee satisfaction and loyalty. Future research could be conducted by using more items in order to measure satisfaction and loyalty. Also, additional research could take place in order to generate more items and dimensions for the SERVQUAL model and use them in order to capture employee perceptions and expectations of service quality. This study calculated unweighted means for the dimensions of service quality. Further research could use weighted means only or unweighted as well and perform relative comparisons.

References

- Abdullah, D.N.M.A. and Rozario, F. (2009) Influence of Service and Product Quality towards Customer Satisfaction: A Case Study at the Staff Cafeteria in the Hotel Industry. *World Academy of Science Engineering and Technology* 53, pp. 185-190.
- Akbar, S., Som, M. P.A., Wadood, F. and Alzaidiyeen, N.J. (2010) Revitalization of Service Quality to Gain Customer Satisfaction and Loyalty. *International Journal of Business and Management* 5(6), pp. 113-122.
- Albrecht, K. and Zemke, R. (1985) Service America: Doing Business in the New Economy, Homewood, IL: Dow Jones-Irwin.
- Ambrose, D.M. and Anstey, J.R. (2010) Questionnaire Development: Demystifying the Process. *International Management Review* 6(1), pp. 83-90.
- Asubonteng, P., McCleary, K.J. and Swan, J.E. (1996) SERVQUAL Revisited: A Critical Review of Service Quality. *Journal of Services Marketing* 10(6), pp. 62-81.
- Babakus, E., Bienstock, C.C. and Scotter, J.R.V. (2004) Linking Perceived Quality and Customer Satisfaction to Store Traffic and Revenue Growth. *Decision Science* 35(4), pp. 713-737.
- Babakus, E. and Boller, W.G. (1992) An Empirical Assessment of the SERVQUAL Scale. *Journal of Business Research* 24, pp. 253-268.
- Babakus, E. and Mangold, W.G. (1992) Adapting the SERVQUAL Scale to Hospital Services: An Empirical Investigation. *Health Services Research* 26(6), pp. 767-786.
- Barney, J. (2002) *Gaining and Sustaining Competitive Advantage*, Upper Saddle River: Prentice Hall, Second Edition.
- Beatson, A., Lings, I. and Gudergan, S. (2008) Employee Behavior and Relationship Quality: Impact on Customers. *The Service Industries Journal* 28(2), pp. 211-223.
- Behn, R.D. (1995) The Big Questions of Public Management. *Public Administration Review* 55(4), pp. 313-324.
- Berry, L.L. (1995) Relationship Marketing of Services: Growing Interest, Emerging Perspectives. *Journal of the Academy of Marketing Science* 23(4), pp. 236–245.
- Bitner, M.J. (1990) Evaluating Service Encounters: The Effect of Physical Surrounding and Employee Responses. *Journal of Marketing* 54(2), pp. 69-81.

- Bolton, R.N. and Drew, J.H. (1991a) A Longitudinal Analysis of the Impact of Service Changes on Customer Attitudes. *Journal of Marketing* 55(January), pp. 1-9.
- Boulding, W., Ajay, K., Staelin, R. and Zeithaml, V. (1993) A Dynamic Process Model of Service Quality: From Expectations to Behavioral Intentions. *Journal of Marketing Research* 30(February), pp. 7-27.
- Bowen, D.E. (1986) Managing customers as human resources in service organizations. *Human Resources Management* 25, pp. 371–383.
- Brown, T.J., Churchill, G.A.Jr. and Peter, P.J. (1993) Improving the Measurement of Service Quality. *Journal of Retailing* 69(Spring), pp. 127-139.
- Brady, K.M. and Cronin Jr., J.J. (2001) Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierarchical Approach. *Journal of Marketing* 65(July), pp. 34-49.
- Brief, A.P. (1998) *Attitudes in and Around Organizations*, Thousands Oaks, CA: Sage Publications, pp. 86.
- Brysland, A. and Curry, A. (2001) Service Improvements in Public Services Using SERVQUAL. *Managing Service Quality* 11(6), pp. 389-401.
- Cardwell, R. and Bolon, D. (1996) Strategic alliances and hospitals: A U.S. perspective. *Journal of Management in Medicine* 1(2), pp. 40–46.
- Carman, J.M. (1990) Consumer Perceptions of Service Quality: An Assessment of the SERVQUAL Dimensions. *Journal of Retailing* 66(1), pp. 33-55.
- Carifio, J. and Perla, R. (2008) Resolving the 50-year Debate Around using and misusing Likert Scales. *Medical Education* 42(12), pp. 1150-1152.
- Caron, D.J. and Giauque, D. (2006) Civil Servant Identity at the Crossroads: New Challenges for Public Administrations. *International Journal of Public Sector Management* 19(6), pp. 543-555.
- Christou, E.S. (1999) *Έρευνα Τουριστικής Αγοράς*, Εκδοτικός Οίκος Interbooks, (Available only in Greek).
- Chu, K.K., Li, C.H. and Chiu, P.H. (2010) A Study of the Quality of Police Services in Exercising Public Power in Taiwan. *Total Quality Management* 21(5), pp. 537-551.
- Cronin, J.J.Jr. and Taylor S.A. (1992) Measuring Service Quality: A Reexamination and Extension. *Journal of Marketing* 56(July), pp. 55-68.

- Dean, A.M. (2004) Links Between Organizational and Customer Variables in Service Delivery: Evidence, Contradictions, and Challenges. *International Journal of Service Industry Management* 15(4), pp. 332-350.
- de Chernatony L. and Segal-Horn S. (2001) Building on Services' Characteristics to Develop Successful Services Brands. *International Journal of Marketing Management* 17(7), pp. 645-669.
- Devlin, S.J., Dong, H.K. and Brown M. (1993) Selecting a Scale for Measuring Quality. *Marketing Research: A Magazine of Management and Applications* 5(3), pp. 12-17.
- Edwards, J.R. and Rothbard, N.P. (1999) Work and Family Stress and Well-Being: An Examination of Person-Environment Fit in the Work and Family Domains. *Organizational Behavior and Human Decision Processes* 77, pp. 85-129.
- Eisenhardt, K.M. (1989) Building Theories from Case-Study Research. *Academy of Management Review* 14(4), pp. 532-550.
- Greising, D. (1994) Quality: How to Make It Pay. *Business Week* (August 8), pp. 54-59.
- Gronroos, C. (1990) Service Management and Marketing, Lexington Books, Lexington, M.A.
- Gronroos, C. (1984) A Service Quality Model and Its Marketing Implications. *European Journal of Marketing* 18(4), pp. 36-44.
- Hamer, L.O. (2003) A Pragmatic View of Perceived Service Quality Management. Services Marketing Quarterly 24(3), pp. 29-42.
- Hamer, L.O., Ben Shaw-Ching Liu and Sudarshan, D. (1999) The Effects of Intraencounter Changes in Expectations on Perceived Service Quality Models. *Journal of Service Research* 1(February), pp. 275-289.
- Hart, C.W.L., Heskett, J.L. and Sasser, W.E.J. (1990) The profitable art of service recovery. *Harvard Business Review* 68(4), pp. 148-156.
- Irving, P.G. and Montes, S.D. (2009) Met expectations: The effects of Expected and Delivered Inducements on Employee Satisfaction. *Journal of Occupational and Organizational Psychology* 82, pp. 431-451.
- Jain, S.K. and Gupta, G. (2004) Measuring Service Quality: SERVQUAL vs SERVPERF Scales. *Vikalpa* 29(2), pp. 25-37.
- Johns, N., Avci, T. and Karatepe, O.M. (2004) Measuring service quality of travel agents: evidence from northern Cyprus. *The Service Industries Journal* 24(3), pp. 82-100.

- Johnson, J.W. (1996) Linking Employee Perceptions of Service Climate to Customer Satisfaction. *Personnel Psychology* 49(4), pp. 831-851.
- Kelly, J.P., Gable, M. and Hise, R.T. (1981) Conflict, Clarity, Tension and Satisfaction in Chain Store Manager Roles. *Journal of Retailing* 57, pp. 27-42.
- Lambert, L.S., Edwards, J.R. and Cabic, D.M. (2003) Breach and Fulfillment of the Psychological Contract: A Comparison of Traditional and Expanded Views. *Personnel Psychology* 56, pp. 895-934.
- Lassk, F.G., Kennedy, K.N. and Goolsby, J.R. (2004) Exploring the Internal Customer Mind-Set of Marketing Personnel. *Journal of Relationship Marketing* (Best Business Books, an imprint of the Haworth Press, Inc.) 3(2/3), pp. 89-106.
- Lee, Y.D. and Chang, H.M. (2008) Relations between Team Work and Innovation in Organizations and the Job Satisfaction of Employees: A Factor Analytic Study. *International Journal of Management* 25(3), pp.732-739.
- Lawler, E.E., Mohrman, S.A. and Ledford C.E. (1995) *Creating High Performance Organizations*, San Francisco: Jossey-Bass.
- Lewis, R. and Booms, B. (1983) The Marketing Aspects of Service Quality. In: Berry, L., Shostack, L. and Upah, G. (Eds) *Emerging Perspectives on Services Marketing*. American Marketing Association, Chicago, IL, pp.99-107.
- Lewis, B.R. & Mitchell, V.W. (1990) Defining and measuring the quality of customer service. *Marketing Intelligence and Planning* 8(6), pp. 11-17.
- Locke, E.A. (1976) The Nature and Causes of Job Satisfaction. In: Dunnette, M. D. (Ed.) *Handbook of Industrial and Organizational Psychology*. Chicago, IL.: Rand-McNally, pp. 1297-1349.
- Lovelock, C.H. and Wirtz J. (2007) Services Marketing: People, Technology, and Strategy, Upper Saddle River, NJ: Prentice Hall.
- Louis. M.R. (1980) Surprise and sense-making: What Newcomers Experience in Entering Unfamiliar Organizational Settings. *Administrative Science Quarterly* 25, pp. 226-251.
- Lusch, R.F. and Serpkenci, R.R. (1990) Personal Differences, Job Tension, Job Outcomes and Store Performance: A Study of Retail Store Managers. *Journal of Marketing* 54 (January), pp. 85-101.
- Madsen, T.K. (1989) Successful Exporting Management: Some Empirical Evidence. *International Marketing Review* 6(4), pp. 42-57.

- Munhurrun, R.P., Naidoo, P. and Bhiwajee, S.D.L. (2010a) Measuring Service Quality: Perceptions of Employees. *Global Journal of Business Research* 4(1), pp. 47-58.
- Munhurrun, R.P., Naidoo, P. and Bhiwajee, S.D.L. (2010b) Service Quality in the public service. *International Journal of Management and Marketing Research* 3(1), pp. 37-50.
- Nadler, D.A. and Cerstein, M.S. (1992) Designing High-Performance Work Systems: Organizing People, Work, Technology and Information. In: Nadler, D. A., Cerstein, M. S., Shaw, R. B. and Associates (Eds) *Organizational Architecture*. San Francisco: Jossey-Bass, pp. 110-132.
- Ntungo, C. (2007) Quality Culture in Government: The Pursuit of a Quality Management Model. *Total Quality Management* 18, pp. 135–145.
- Nwabueze, U. and Mileski, J.P. (2008) The Three Dimensions of Quality Service: The Case of Service Quality Gaps in the U.K. National Health Service? *International Journal of Public Administration* 31, pp. 1328–1353.
- Nunally, J.C. (1994) *Psychometric Methods*, McGraw-Hill Book Company, New York, N. Y.
- Oliver, R.L. (1980) A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research* 17(November), pp. 460-469.
- Oliver, R.L. (1981) Measurement and Evaluation of Satisfaction Processes in Retail Settings. *Journal of Retailing*, 57(3), pp. 25–48.
- Ozdemir, V.E. and Hewett, K. (2010) The Effect of Collectivism on the Importance of Relationship Quality and Service Quality for Behavioral Intentions: A Cross-National and Cross-Contextual Analysis. *Journal of International Marketing* 18(1), pp. 41–62.
- Padgett, D.K. (2009) Qualitative and Mixed Methods in Social Work Knowledge Development. *Social Work* 54(2), pp. 101-105.
- Parasuraman, A., Berry L.L. and Zeithaml V.A. (1994) Reassessment of Expectations as a Comparison Standard in Measuring Service Quality: Implications for Future Research. *Journal of Marketing* 58(January), pp. 111-124.
- Parasuraman, A., Berry L.L. and Zeithaml V.A. (1991) Refinement and Reassessment of the SERVQUAL Scale. *Journal of Retailing* 67(Winter), pp. 420-450.
- Parasuraman, A., Berry L.L. and Zeithaml V.A. (1993) More on Improving Service Quality Measurement. *Journal of Retailing* 69(Spring), pp. 40-47.

- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1985) A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing* 49(Fall), pp. 41-50.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988) SERVQUAL: A multipleitem scale for measuring consumer perceptions of service quality. *Journal of Retailing* 64(1), pp. 12-40.
- Philippidou, S.S., Soderquist, K.E. and Prastacos, G.P. (2004) Towards New Public Management in Greek Public Organizations: Leadership vs. Management, and the Path to Implementation. *Public Organization Review: A Global Journal* 4, pp. 317-337.
- Pugh, S.D., Dietz, J., Wiley, J.W. and Brooks, S.M. (2002) Driving Service Effectiveness Through Employee-Customer Linkages. *Academy of Management Executive* 16(4), pp. 73-84.
- Ravichandran, K., Mani, B.T., Kumar, S.A. and Prabhakaran, S. (2010) Influence of Service Quality on Customer Satisfaction Application of Servqual Model. *International Journal of Business and Management* 5(4), pp. 117-124.
- Reichheld, F.F. and Sasser, W.E. (1990) Zero definitions: Quality Comes to Services. *Harvard Business Review* 68(5), pp. 105-111.
- Rita, S. and Ganesan, V. (2010) Assessment of QOS for Public Bus Transport System- A SERVQUAL Based Kano Approach. *Advances In Management* 3(4), pp. 32-42.
- Robinson, L. (2002) Is Quality Management Appropriate for Public Leisure Services? *Managing Leisure* 7, pp. 33-40.
- Rowley, J. (2002) Using Case Studies in Research. *Management research News* 25(1), pp. 16-27.
- Rowley, J. (1998) Quality Measurement in the Public Sector: Some Perspectives from the Service Quality Literature. *Total Quality Management* 9(2&3), pp. 321-333.
- Rust, R.T., Zahorik, A.J. and Keiningham, T.L. (1995) Return on Quality (ROQ): Making Service Quality Financially Accountable. *Journal of Marketing* 59(April), pp. 58-70.
- Sanderson, I. (1992) *Management of Quality in Local Government*, Longman, Harlow, pp. 7.
- Schneider, B. and Bowen, D. (1993) The Service Organization: Human Resources Management is Crucial. *Organizational Dynamics* 21(4), pp. 39-52.

- Schneider, B. and Bowen, D.E. (1985) Employee and Customer Perceptions of Service in Banks: Replication and Extension. *Journal of Applied Psychology* 70 (3), pp. 423-433.
- Schneider B., Wheeler, J.K. and Cox, J.F. (1992) A passion for Service: Using Content Analysis to Explicate Service Climate Themes. *Journal of Applied Psychology* 77, pp. 705-716.
- Schneider, B., White, S.S. and Paul, M.C. (1998) Linking Service Climate and Customer Perceptions of Service Quality: Test of a Casual Model. *Journal of Applied Psychology* 83(2), pp. 150-163.
- Silvestro, R. and Cross, S. (2000) Applying the Service Profit Chain in a Retail Environment: Challenging the Satisfaction Mirror. *International Journal of Service Industry Management* 11(3), pp. 244-268.
- Skelcher, C. (1992) Improving the Quality of Local Public Services. *The Service Industries Journal* 12(4), pp. 463-477.
- Smith, A.M (1995) Measuring Service Quality: is SERVQUAL now Redundant? Journal of Marketing Management 11, pp. 257-276.
- Soltani, E., Liaoa, Y.Y., Singhb, A. and Wang, W.Y. (2010) Managing service quality: The Managers' Orientations and their Consequences Case Study Evidence of Current Practice. *Total Quality Management* 21(6), pp. 673–685.
- Spector, P.E. (1997) *Job Satisfaction: Application, Assessment, Causes, and Consequences*, CA Sage: Thousand Oaks Publications.
- Tam, J.L.M. (2004) Customer Satisfaction, Service Quality and Perceived Value: An Integrative Model. *Journal of Marketing Management* 20, pp. 897-917.
- Tambi, A.M.B.A., Ghazali, M.C. and Rahim, N.A.B.A. (2008) Service Quality at an Inland Revenue Board's Branch Office In Malaysia. *Total Quality Management* 19(9), pp. 963-968.
- Teas, K.R. (1993) Expectations, Performance Evaluation and Consumers' Perceptions of Quality. *Journal of Marketing* 57(October), pp. 18-34.
- Themelis, N. (1990) Transformation of the Public Administration in Greece. In: report prepared by Ministry of Interior Public Administration & Decentralization (2000).
- Tzafrir, S.S. and Gur, A.B.A. (2007) HRM Practices and Perceived Service Quality: The Role of Trust as a Mediator. *Research and Practice in Human Resource Management* 15(2), pp. 1-20.
- Wang, X.H. and Xie, X.Q. (2008) Measuring Job Satisfaction of Employees in Chinese State-owned and Privately-owned Enterprises: An Empirical Study. *China-USA Business Review* 7(1), pp. 1-9.

- Wisniewski, M. (2001) Assessing Customer Satisfaction with Local Authority Services using SERVQUAL. *Total Quality Management* 12(7&8), pp. 995-1002.
- Whorton, J.W. and Worthley, J.A. (1981) A Perspective on the Challenge of Public Management: Environmental Paradox and Organizational Culture. *Academy of Management Review* 6(3), pp. 357-361.
- Wright, B.E. (2001) Public-Sector Work Motivation: A Review of the Current Literature and a Revised Conceptual Model. *Journal of Public Administration Research and Theory* 11(4), pp. 559-586.
- Yang, Z. and Peterson, R.T. (2004) Customer Perceived Value, Satisfaction and Loyalty: The Role of Switching Costs. *Psychology and Marketing* 21(10), pp. 799-822.
- Yee, R.W.Y., Yeung, A.C.L. and Cheng, T.C.E. (2008) The Impact of Employee Satisfaction on Quality and Profitability in high-contact Service Industries. *Journal of Operations Management* 25, pp. 651-668.
- Yin, R.K. (1994) Case Study Research: Design and Methods, CA Sage: Thousand Oaks Publications.
- Zeithaml, V.A., Berry, L.L. and Parasuraman, A. (1996) The Behavioral Consequences of Service Quality. *Journal of Marketing* 60 (April), pp. 31-46.

ELECRONIC RESOURCES

- Atkins, R. (2010) Eurozone: Greece effect cuts Europe down to size. In: *Financial Times Special Report- G20 Summit*. Frankfurt. pp. 1-6. Available: http://media.ft.com/cms/fbb51ce8-7dae-11df-a0f5-00144feabdc0.pdf [Published: June 25 2010 00:36].
- Central Intelligence Agency. (2010) *The World Fact Book*. United States of America. Available: https://www.cia.gov/library/publications/the-world-factbook/fields/2012.html [February 2010].
- European Academy of Standardization (EURAS). (2010) ISO work in the field of services standardization. *15th Annual Conference University of Lausanne*. Switzerland. pp. 1-23. Available: http://www.euras.org/uploads/2010presentations/Weissinger_services.pdf [August 2010].
- Nejatia, M., Nejatib, M. and Shafaeic, A. (2007) Using SERVQUAL to Measure Employee Satisfaction: An Iranian Case Study. *Proceedings of the 13th Asia Pacific Management Conference*. Melbourne. Australia. pp. 371-375. Available: http://infotech.monash.edu.au/research/centres/cdsesr/papers-pdf/a212.pdf [June 2010].

Appendix A: Questionnaire (Munhurrun et al., 2010a)

This is the Questionnaire that was distributed to the Inland Revenue Service employees in June-July 2010 for the acquisition of primary data for the purposes of this dissertation.

MEASURING SERVICE QUALITY IN THE PUBLIC SECTOR: PERCEPTIONS OF EMPLOYEES IN GREECE (A CASE STUDY)

Dear Sir/Madam

This questionnaire aims to gather data that will be used for academic research. The purpose of this survey is to measure the expectations that you would have as an employee, from your service if it was operating based on what you perceive as the ideal and your actual performance in the service based on your current situation. Please complete the questions with sincerity since your answers are very important for the analysis and they will be treated with anonymity and confidentiality.

Thank you for your cooperation.

<u>Part 1</u>

Please tick the appropriate box below

1.	Gende	er:					
		Male			Female		
2.	Marit	al Status:					
		Single		Married			Divorced
3.	Your	age group is:					
		18-25		36-45			55+
		26-35		46-55			
4.	Highe	est level of educatio	n:				
		High school certif	ficate			Univ	ersity diploma
		Master Diploma				PhD	Diploma
		Others					
	(specif	y:)			
5.	How 1	many years have yo	ou been v	working fo	or this so	ervice	e department?
		Less than 1 year		3 to 5 years	S	years	More than 10
		1 to 3 years		5 to 10 yea	rs		

6.	What is your income range?		
	Less than 1.000 Euro		
	From 1.100 to 1.500 Euro		
	From 1.600 to 2.000 Euro		
	From 2.100 to 2.500 Euro		
	More than 2.500 Euro		
7.	What is your position in your s	service dep	partment?
	Administrative officer		Subdivision head
	Auditor		Director
	Department supervisor		Others
		(Specify	:)

Part 2:

The central column contains questions that suggest features you would expect as an employee from your service if this service department was the ideal for you. There are two columns on each side (left and right) of the central. The column on the left measures your expectations from the "ideal" service and the column on the right, what you perceive as an employee from your work in your current situation. Please read each question and circle the number that represents your judgements.

service PERFI indicat or disa circlin Each n follow 1 = Str 2 = Di 3 = Ne 4 = Ag	e if it was ECT, a te to was gree was g the a number ing: rongly sagree either a gree	vas EXO s an en hat exto rith eac ppropri indica Disago	ree or disag	on by ber.	Questions	If you evaluated the servic quality of the department are working NOW, how would you rate the attribu given in the middle column using the scale: 1 = Strongly Disagree 2 = Disagree 3 = Neither agree nor disagree 4 = Agree 5 = Strongly Agree				t you utes
	1	l		1	Reliability When we promise to do something by a certain time,		l			1
					when we promise to do something by a certain time,					
1	2	3	4	5		1	2	3	4	5
4			4		We show sincere interest on solving citizens'	4			4	
1	2	3	4	5	problems	1	2	3	4	5
1	2	3	4	5	We perform services right the first time	1	2	3	4	5
			-		we perform services right the first time				-	
1	2	3	4	5	We provide services at the time required/ promised	1	2	3	4	5
1	1 2 3 4 5			5	We provide correct/ accurate information to citizens	1	2	3	4	5
	1	1		1	Responsiveness	1	ı			1
1	2	3	4	5	We provide prompt services to citizens	1	2	3	4	5
1	2	3	4	5	We are always willing to help citizens	1	2	3	4	5
1	2	3	4	5	We are never too busy to respond to citizens' requests	1	2	3	4	5
					Assurance					
1	2	3	4	5	Citizens' behavior instill confidence in us	1	2	3	4	5
1	2	3	4	5	We can be trusted by citizens	1	2	3	4	5
1	2	3	4	5	We are consistently courteous to citizens	1	2	3	4	5
1	2	3	4	5	We have the required knowledge to answer citizens' questions	1	2	3	4	5
	-				Empathy					
1	2	3	4	5	We give individual attention to citizens	1	2	3	4	5
1	2	3	4	5	We have citizens' best interest at heart	1	2	3	4	5

1	2	3	4	5	We understand citizens' specific needs	1	2	3	4	5	
1	2	3	4	5	We have convenient working hours	1	2	3	4	5	
		I	I		Tangibles		I				
1										5	
1	2	3	4	5	The materials used in the workplace are visually appealing	1	2	3	4	5	
1	2	3	4	5	The working environment is comfortable and attractive	1	2	3	4	5	
					Satisfaction						
1	2	3	4	5	Overall I am satisfied with the services the service department I work offers	1	2	3	4	5	
	Loyalty										
1	2	3	4	5	I intend to stay in my service and not ask to be transferred to another service department	1	2	3	4	5	

Appendix B: The questionnaire in Greek.
Αγαπητή/έ Κυρία/ε,
το παρόν ερωτηματολόγιο έχει σκοπό τη συλλογή δεδομένων τα οποία θα
χρησιμοποιηθούν σε ακαδημαϊκή έρευνα. Η έρευνα έχει ως αντικείμενο τη μέτρηση
των προσδοκιών που θα είχατε από την υπηρεσία σας σαν εργαζόμενος/η, αν και
εφόσον αυτή λειτουργούσε με βάση αυτό που αντιλαμβάνεστε εσείς ως ιδανικό και την πραγματική απόδοσή σας στην υπηρεσία σας με βάση την παρούσα κατάσταση.
Παρακαλείστε να συμπληρώσετε τις ερωτήσεις με ειλικρίνεια, καθώς οι απαντήσεις
σας είναι πολύ σημαντικές για την ανάλυση και θα αντιμετωπιστούν με ανωνυμία και
εμπιστευτικότητα.
Σας ευχαριστώ πολύ για την συνεργασία σας.

ΜΕΡΟΣ 1ο

Παρακαλώ σημαδέψτε με $\sqrt{}$ το κατάλληλο κουτάκι παρακάτω: 1. Φύλλο: Γυναίκα Άνδρας 2. Οικογενειακή κατάσταση: Ανύπαντρος/η Παντρεμένος/η Διαζευγμένος/η 3. Η ηλικία σας είναι μεταξύ: 18-25 36-45 55+ 26-35 46-55 4. Το υψηλότερο επίπεδο εκπαίδευσή σας είναι: Απόφοιτος Λυκείου Απόφοιτος ΑΕΙ/ΤΕΙ Κάτοχος Μεταπτυχιακού Κάτοχος Διδακτορικού Άλλο (προσδιορίστε:....) 5. Πόσα χρόνια εργάζεστε για την υπηρεσία; □ Λιγότερο από 1 έτος 🛘 3 έως 5 έτη Πάνω από 10 έτη

5 έως 10 έτη

🛘 1 έως 3 έτη

6. Ποιο είναι το επίπεδο του μηνιαίου εισοδήματός σας;										
	Κάτω από 1.000 Ευρώ									
	Από 1.100 έως 1.500 Ευρώ									
	Από 1.600 έως 2.000 Ευρώ									
	Από 2.100 έως 2.500 Ευρώ									
	Από 2.500 Ευρώ και πάνω									
7 П		osía ós								
/ . II(οια είναι θέση σας στην υπηρ	eoiu oi	ιου εμγαζεστε,							
	Διοικητικός υπάλληλος		Προϊστάμενος υπό- διεύθυνσης							
	Ελεγκτής		Διευθυντής							
	Προϊστάμενος τμήματος		Άλλο							
		(προσ	σδιορίστε:)							

MEPOΣ 20:

Η κεντρική στήλη περιέχει ερωτήσεις, οι οποίες υποδηλώνουν χαρακτηριστικά που θα περιμένατε εσείς ως υπάλληλος να έχει η υπηρεσία σας, αν και εφόσον αυτή ήταν η ιδανική για εσάς. Υπάρχουν δύο στήλες αριστερά και δεξιά της κεντρικής. Η στήλη που βρίσκεται στα αριστερά της κεντρικής μετράει τις προσδοκίες σας από την «ιδανική» υπηρεσία και η στήλη στα δεξιά ότι εσείς αντιλαμβάνεστε ως εργαζόμενος στην υπηρεσία σας με την παρούσα κατάσταση και συνθήκες. Παρακαλώ, διαβάστε κάθε ερώτηση και κυκλώστε τον αριθμό που αντιπροσωπεύει την κρίση σας.

υπηρες και εφ ΙΛΑΝΙ υποδεί διαφων κάθε ει κατάλλ υπόψη πιστεύ υπηρες Κάθε ς εξής: 1= Δια	τιών τι όσον α ΙΚΗ, σ ξτε σε νείτε ή ρώτησ ληλο α ότι απ ετε για σία ως αρωνώ αφωνώ τε δια ονώ μφωνώ	ης υπηρ υτή ήτι ταν εργ τι έκτο συμφο η κυκλ ριθμό, αντάτε την ιδ εργαζό ς υποδη έντον ό φωνώ	ονείτε με ώνοντας έχοντας με βάστ ανική ρμενος. ηλώνει το α	ις αν TH- ξ τον	Ερωτήσεις	Αξιολογώντας την ποιότητ υπηρεσιών της υπηρεσίας στην οποία εργάζεστε ΤΩ! ΜΕ ΤΙΣ ΠΑΡΟΥΣΕΣ ΣΥΝΘΗΚΕΣ, πώς θα βαθμολογούσατε τα χαρακτηριστικά που δίνον μέσω ερωτήσεων στην μεσ στήλη χρησιμοποιώντας τι κλίμακα: 1= Διαφωνώ έντονα 2= Διαφωνώ 3= Ούτε διαφωνώ ούτε συμφωνώ 4= Συμφωνώ 5= Συμφωνώ έντονα				ς ΩΡΑ ονται εσαία την
					Αξιοπιστία					
1	2	3	4	5	Όταν υποσχόμαστε να κάνουμε κάτι σε συγκεκριμένο χρόνο, το κάνουμε	1	2	3	4	5
1	2	3	4	5	Επιδεικνύουμε έντονο ενδιαφέρον για την επίλυση των προβλημάτων των πολιτών	1	2	3	4	5
1	2	3	4	5	Παρέχουμε την υπηρεσία την πρώτη φορά που θα ζητηθεί	1	2	3	4	5
1	2	3	4	5	Παρέχουμε την υπηρεσία την στιγμή που αυτή ζητείται	1	2	3	4	5
1	2	3	4	5	Παρέχουμε ακριβείς/σωστές πληροφορίες στους πολίτες	1	2	3	4	5
	1	1		1	Υπευθυνότητα			1		
1	2	3	4	5	Παρέχουμε γρήγορη και άμεση εξυπηρέτηση στους πολίτες	1	2	3	4	5
1	2	3	4	5	Είμαστε πάντοτε πρόθυμοι να βοηθήσουμε τους πολίτες	1	2	3	4	5
μην μ		5	Δεν είμαστε ποτέ τόσο απασχολημένοι ώστε να μην μπορούμε να απαντήσουμε στα αιτήματα των πολιτών		2	3	4	5		
		1			Διαβεβαίωση/Ασφάλεια					
1	2	3	4	5	Η συμπεριφορά των πολιτών φανερώνει ότι έχουν εμπιστοσύνη σε μας	1	2	3	4	5
1	2	3	4	5	Οι πολίτες μπορούν να μας εμπιστευθούν	1	2	3	4	5

					Οι πολίτες μπορούν να μας εμπιστευθούν					
1	2	3	4	5	Είμαστε συνεχώς ευγενικοί με τους πολίτες	1	2	3	4	5
1	2	3	4	5	Έχουμε τις κατάλληλες γνώσεις ώστε να μπορούμε να απαντήσουμε στις ερωτήσεις των πολιτών	1	2	3	4	5
	1			l	Συναίσθηση			1		1
1	2	3	4	5	Δίνουμε ξεχωριστή προσοχή/εξυπηρέτηση στους πολίτες	1	2	3	4	5
1	2	3	4	5	Έχουμε το συμφέρον των πολιτών στο επίκεντρο	1	2	3	4	5
1	2	3	4	5	Κατανοούμε τις ειδικές ανάγκες των πολιτών	1	2	3	4	5
1	2	3	4	5	Οι ώρες που λειτουργεί η υπηρεσία είναι βολικές για τους πολίτες	1	2	3	4	5
					Υλικά στοιχεία					
1	2	3	4	5	Έχουμε σύγχρονο εξοπλισμό	1	2	3	4	5
1	2	3	4	5	Τα υλικά (γραφεία, καρέκλες κ.λπ.), που χρησιμοποιούνται στο χώρο εργασίας είναι οπτικά ελκυστικά	1	2	3	4	5
1	2	3	4	5	Το εργασιακό περιβάλλον είναι άνετο και ελκυστικό	1	2	3	4	5
					Ικανοποίηση					
1	2	3	4	5	Γενικά είμαι ικανοποιημένος με την υπηρεσία και τις υπηρεσίες που αυτή παρέχει	1	2	3	4	5
					Πιστότητα					
1	2	3	4	5	Σκοπεύω να παραμείνω στην υπηρεσία μου και να μην πάω με μετάταξη σε άλλη υπηρεσία	1	2	3	4	5

Σας ευχαριστώ πολύ.