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DEVELOPING LONGITUDINAL RELATIONSHIPS WITH CUSTOMERS IN THE PHARMACEUTICAL SECTOR

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To Victoria, Athina and Alexander

“He is a wise man who does not grieve for the things which he has not, but rejoices for those which he has.” — Epictetus

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Gratitude is not only the greatest of virtues, but the parent of all others. ~ **Cicero**

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Abstract

As firms seek ways to manage customer relationships over the long term, understanding the dynamics of the service provider-customer relationship becomes a key priority. The purpose of this empirical investigation is to examine the relationship(s) among service quality and customer – oriented organizational citizenship behavior with customer satisfaction and customer commitment in the community pharmacy. The study was conducted in five different community pharmacies, all located in the city of Thessaloniki, in Greece. The study population consisted of the customers of those five pharmacies. The researcher chose a convenience sample of the customers, who visited those pharmacies during the period of the study, which consists of 250 respondents. The main questions in this survey are: 1.Is there a positive relationship between service quality and customer commitment? 2. Is there a positive relationship between service quality and customer satisfaction? 3. Is there a positive relationship between customer-oriented organizational citizenship behavior and customer commitment? 4. Is there a positive relationship between customer-oriented organizational citizenship behavior and customer satisfaction?

In order to achieve the objectives of the study, a questionnaire was designed, consisting of 68 items. The Statistical Package for Social Sciences (SPSS) program was used to examine the hypotheses.

The results of this study stated that there are significant statistical relationships among service quality and customer – oriented organizational citizenship behavior with both customer satisfaction and customer commitment.

Keywords: community pharmacies, service quality, customer satisfaction, customer commitment, customer-oriented organizational citizenship behavior.

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Introduction

The retail pharmacy sector remains, across the European Union, one of the last bastions of tight government regulations and widespread resale price maintenance (Ploch and Schmidt, 2001). Successful marketing requires that managers understand how customers' relationships with an organization change over time. The dynamic nature of customer relationships is especially important in industries that offer continuously provided services, such as public utilities, health care, financial services, computing services, insurance, and other professional, membership, or subscription services. In these industries, customers choose future service usage levels based on their evaluations of their current service experiences, and these usage levels have a substantial impact on the long-term profitability of the organization.

The role of relational benefits is significant. Customers are likely to receive benefits derived simply from their being in a relationship, beyond the core service performance. These benefits have been labeled ‘‘Relational Benefits’’, and are the result of having cultivated long-term relationships with a service provider (Gwinner et al., 1998; Hennig-Thurau et al., 2002). Gwinner et al. (1998) offer an extensive study on relational benefits from the customer’s perspective, providing a typology consisting in three categories: (1) Social benefits refer to the strength of personal bonds between customers and their service employees, and include a sense of belonging, empathy, understanding, feelings of familiarity and even friendship. Customer–provider interaction may be as important to the achievement of customer loyalty as crucial marketing considerations such as value for money (2) Confidence benefits are psychological benefits related to comfort or feeling of security, reduced anxiety and trust in having developed a relationship with a provider. (3) Special treatment benefits combine economic and customization benefits. The former relate to discounts or price breaks for those customers who have developed a relationship with a provider, and also include nonpecuniary benefits such as a quicker service or time saved in searching for another provider. The latter include customers’ perception of preferential treatment, extra attention and special services not available to other customers.

Customer commitment is crucial in most types of businesses. In Greece, there is no free competition between pharmacies. At this point, Greece is one of the few developed countries where drugs are exclusively sold in pharmaceutical establishments. However, the government has announced a partial liberalization of this sector. Which means that the over- the-counter (OTC) drugs, which need no medical prescription, could be sold in the supermarkets, in the

near future. Thus, this is the moment to capture the grade of commitment with no liberalization and compare it with the post liberalization one.

Customer satisfaction is also considered a fundamental requirement for building a competitive advantage in any organization, which has arisen as a result of the hypercompetitive business environment that companies face; therefore an enhanced customer satisfaction is believed to be significantly associated with greater customer commitment, increased sales and productivity, high new-product success and innovation leading to a more sustainable competitive advantage (Wang and Lo, 2003). Many studies have tried to highlight the importance of customer satisfaction of the service provided by community pharmacies (Kucukarslan and Schommer , 2002; Panvelkar et..al., 2009; White and Klinner, 2011) Therefore, pharmacies must try to differentiate their pharmaceutical care and try to cater for patients' needs. They also have to focus on building long-term relations with the patients by building trust and loyalty (Jambulingam, et..al. 2009).

In order to retain current customers and acquire new ones, the focus should be on the quality of service provided, as service quality is essential in enabling the organizations to achieve competitiveness. Whether the organization is a service or a manufacturing one, it should direct its attention to applying service quality into its products or services (Voon, 2006).Studies have discussed the importance of service quality and emphasized its direct positive relationship with customer satisfaction. (Levesque & McDougall, 1996; Dahiyat et..al., 2011; Rehman, 2012). For example, some factors like employees' attitudes, customer expectations and customer's intention to deal with the same organization in the future will certainly be affected by service quality, which will be reflected on customer's satisfaction (Dahiyat et.al., 2011)

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Successful organizations need to emphasize the quality of services offered to both internal and external customers (Marzie et..al., 2013). Such organizations must be smart enough to predict the changing needs of their customers, focus on their organizational capability, offer high-quality services, and see the quality of internal and external service as a tool to gain competitive advantage (Rehman, 2012). It is widely acknowledged that successful organizations need to have a customer-oriented business culture. In fact, during the four decades since the introduction of the marketing concept, customer orientation has been identified as a cornerstone of the theory and practice of marketing management. It is important to identify those key factors in customer orientation which allow the company to differentiate themselves from the competition (Singh and Koshy, 2012).Being customer oriented is essential to quality

management, and means maintaining good relationship with your customers as well as putting the customer first in the decision-making process so as to be successful within the hypercompetitive market (Sit et al., 2009). One important way to achieve this is to perform as a pharmacist a behavior characteristic, which is called customer – oriented organizational citizenship behavior. It is non- mandated and arises from independent individual initiative, but research has shown that independent individual initiatives on the part of the service provider affect customer satisfaction (Bienstock et al., 2003).

Community pharmacies play a major role in delivering safe and effective medicines to the consumers. The role of the pharmacists goes way beyond dispensing the drug; it also covers advising, counseling, managing long-term conditions, close follow up with the patient and offering him sufficient information to assure him and guarantee his well-being. All of these services provided nowadays are known by the name "Pharmaceutical Care" (Jacobs et..al., 2011). Therefore, in order to be in the lead, commitment becomes important. (Perepelkin et..al., 2011) states, "The community pharmacy industry is an increasingly competitive sector, where independent pharmacies must compete with national and multinational chains for market share. Each pharmacy seeks to differentiate and earn customer trust."

The main purpose of the current thesis is to investigate how longitudinal relationships can be developed in the pharmaceutical sector and if there is a relationship between service quality (SQ) and customer-oriented organizational citizenship behavior (CO-OCB), which are performed by community pharmacies, and the customer commitment and customer satisfaction, which are experienced by the customers of the above pharmacies. This thesis intends to contribute theoretically and practically. First, it enriches the study of CO-OCB. A significant contribution to any service organization, such as community pharmacies, in order for them to improve their service quality. Second, it enriches the research of customer satisfaction and customer commitment in the community pharmacies' sector. The results will help us see, if there is meaning to improve and develop the first two factors (SQ and CO-OCB), in the services provided by the community pharmacies. In addition, highlight the importance of the role, which those pharmacies play, in the everyday life of their customers. Therefore, the main questions are: 1.Is there a positive relationship between service quality and customer commitment? 2. Is there a positive relationship between service quality and customer satisfaction? 3. Is there a positive relationship between customer-oriented organizational citizenship behavior and customer commitment? 4. Is there a positive relationship between customer-oriented organizational citizenship behavior and customer satisfaction?

This thesis is structured as follows. There are six sections in this thesis. The introduction refers to the main variables and the purpose of this study. The first chapter is based on a review of the literature, and outlines the construct of customer commitment, customer satisfaction, service quality and customer – oriented organizational citizenship behavior. The second chapter describes the community pharmacies sector across the world and how it is evaluated in connection to the services it provides. The third chapter describes the methodology and our hypotheses. The fourth chapter of this paper provides the findings. Finally, the fifth chapter consists of the conclusion, limitations and suggestions for future studies.

1. THE THEORETICAL FRAMEWORK

1.1 Customer commitment

One of the central concepts in the relationship-marketing paradigm is that of customer commitment (Dwyer, Schurr, and Oh 1987; Wetzels, de Ruyter, and Lemmink, 2000). There have been many definitions of the commitment concept appearing in the fields of psychology, organizational behavior, and marketing. These definitions all reflect that commitment to a relationship involves both a psychological state (e.g. a binding force; a link; a pledge; or a dedication) and a motivational phenomenon (e.g. to maintain a relationship; to repurchase; or to remain with an organization). Much of what is currently understood about commitment stems from research in psychology and organizational behavior.

It has been variously defined as "an implicit or explicit pledge of relational continuity between exchange partners" (Dwyer et al., 1987) or as the "psychological attachment" to an organization (Gruen et al., 2000), as an attitude that reflects the desire to maintain a valued relationship (Moorman, Zaltman, and Deshpande, 1992). Moorman, Zaltman, and Deshpande (1992, p. 316) define commitment as an ‘‘enduring desire to maintain a valued relationship.’’ Dwyer, Schurr, and Oh (1987, p. 19) define it as ‘‘an implicit or explicit pledge of relational continuity between exchange partners.’’Gustafsson, Johnson, and Roos (2005, p. 211) conclude commitment can ‘‘create a ‘stickiness’ that keeps consumers loyal to a brand or firm even when satisfaction may be low.’’ Commitment is an internal force that binds an individual to a course of action or target, and is often conceptualized as an attitude that reflects feelings such as attachment, identification or loyalty (Cohen, 2003). Meyer and Herscovitch (2001) defined commitment as a force that binds an individual to a course of action of relevance to one or more targets.

Many of these definitions assume that commitment is an attitudinal construct (Gilliland and Bello, 2002). This enables researchers in the area to focus on the relationship between customer commitment attitude and a number of relational intentions and/or behaviors. Commitment has been viewed as an implicit or explicit pledge of continuity between relational partners (Dwyer et al., 1987). It has also been defined as mutuality and the forsaking of alternatives (Gundlach et al., 1995). Others have defined commitment as an enduring desire to maintain a valuable relationship (Moorman et al., 1992). Commitment is viewed as a force of psychological attachment (O'Reilly and Chatman, 1986) and as a central construct in the relationship

marketing literature (Morgan and Hunt, 1994).As a result there are various views about the nature of the construct.

Organizational behavior and social psychology suggest that commitment is a multifaceted construct (Adams and Jones, 1997; Meyer and Allen, 1997; Meyer and Herscovitch, 2001; O'Reilly and Chatman, 1986).Commitment has been treated as a multidimensional construct in marketing research, although almost exclusively in business-to-business, not consumer, relationships (Gruen et al., 2000; Gundlach et al., 1995; Wetzels et al., 2000; for exceptions, see Harrison-Walker, 2001; Verhoef et al., 2002). Research in these areas and in marketing has led to three generalizations about the commitment construct (e.g. Adams and Jones, 1999; Allen and Meyer, 1990; Bansal et al., 2004; Bove and Johnson, 2001; Garbarino and Johnson, 1999; Gruen et al., 2000; Irving et al., 1997; Johnson, 1991):

1. ***People become committed to different things***. In other words, commitment is directed at a specific target. Fehr's (1999) prototyping study finds that people can express being committed to over 200 different targets including people, organizations, goals, pets, groups, and ideals. Organizational behavior researchers have distinguished between commitment to an organization, a profession, a work team, a supervisor, and a colleague (Hunt and Morgan, 1994). Recent work in marketing has distinguished between commitment to the service provider (i.e. the person) and commitment to the service organization (Hansen et al., 2003). In the present research, the target of commitment is a service organization (e.g. a bank, a hair salon, a real estate company).

2. ***People experience commitment in different forms***. In other words, commitment has multiple dimensions. Three dimensions of commitment are typically discussed in psychology (e.g. Adams and Jones, 1999), organizational behavior (e.g. Allen and Meyer, 1990), and marketing (e.g. Bansal et al., 2004; Gruen et al., 2000). Affective commitment reflects an individual's desire to remain in a relationship – here a positive emotional bond to a service organization. Normative commitment is a feeling of obligation to a relationship. Continuance commitment reflects a consumer's perception of the sacrifice associated with terminating the relationship with a service organization. These three dimensions (or components) of commitment are loosely known as “want to stay,” “should stay,” and “have to stay” (Gruen et al., 2000) or as the emotional, moral, and rational forms of commitment (Johnson, 1991).

3. ***These different dimensions of commitment generate different effects on various relationship-related outcomes***. Recent work in organizational behavior distinguishes between focal and discretionary employee responses (e.g. Snape and Redman, 2003). Organizational commitment measures were developed for the purposes of predicting employee retention. Staying with the organization is thus the focal outcome, while organizational citizenship behaviors, job performance, positive word-of-mouth, and socializing with others would be considered discretionary responses (Meyer et al., 2004). Affective commitment seems to be predictive of both focal and discretionary responses in organizational behavior settings; whereas, normative and continuance commitments are typically predictive of some discretionary responses (Meyer et al., 2004; Snape and Redman, 2003). Marketing poses similar customer responses that can be categorized as either focal or discretionary. Repurchase intentions and relative attitude are considered focal responses because they are endemic to the exchange relationship between customer and service organization and are the two key elements of what can be considered customer loyalty (Dick and Basu, 1994; Jones and Taylor, 2007). Discretionary customer responses in marketing are those that customers may choose to do, that may represent higher forms of customer loyalty, and may indirectly benefit a firm (Jones and Taylor, 2007; Reichheld, 2003), such as advocacy (word-of-mouth), fidelity (exclusive purchase), willingness to pay more, and altruism (helping without direct recompense). The predictive power of affective, normative, and continuance commitments on both focal and discretionary responses requires further examination in a marketing context.

Customer commitment is defined as an enduring attitude or desire for a particular brand or firm (Moorman, Zaltman, and Deshpande, 1992). Committed customers are motivated to maintain the relationship because of a feeling of attachment and sincerity in their personal attitudes. Customer commitment is vital to the creation and preservation of marketing relationships. Commitment represents the key attitudinal facet of customer loyalty, and it is a customer's commitment that provides the essential basis for distinguishing between genuine and spurious customer loyalty (Jacoby and Chestnut 1978; Jacoby and Kyner, 1973).

Meyer and Herscovitch (2001), in a comprehensive review of the workplace commitment literature, found that despite the use of different labels, considerable research support has been established for three dimensions of commitment originally proposed by Meyer and Allen (1997)--**affective, continuance (calculative), and normative**--and that these dimensions were appropriate regardless of the target of commitment. Meyer and Herscovitch (2001) also

suggested that these dimensions of commitment reflect different underlying psychological states concerning one's relationship with the target of interest. Therefore, these dimensions of commitment develop in different ways and, with the exception of their links with intentions to maintain a relationship with the target of that commitment, have potentially different implications for behavior. As such, cornmitment is distinguishable from exchange-based forms of motivation and from target-relevant attitudes and can influence behavior even in the absence of intrinsic motivation or positive attitudes.

In extending (Meyer and Allen, 1997; Meyer and Herscovitch, 2001) three-component model to a consumer setting, **commitment** can be conceptualized as a ***force that binds an individual to continue to purchase services (i.e.,to not switch) from a service provider.***

This force refers to different underlying psychological states that reflect the nature of the individual's relationship with the target of interest and that have implications for the decision to continue that relationship (Meyer and Allen, 1997). These psychological states can be categorized as **three distinguishable components.**

a. ***Affective commitment*** refers to a desire-based attachment to the organization (i.e., employees remain with the organization because they ***want*** to).

Affective commitment "reflects an emotional attachment to, identification with and involvement in an organization" (Meyer and Smith, 2000:320). In a consumer context, this affective force binds the consumer to the service provider out of desire. It reflects an individual's "psychological bond" (Gruen et al., 2000:37) with a service provider and is similar to "loyalty commitment" described by Gilliland and Bello (2002).

b. ***Continuance (calculative) commitment*** refers to a cost-based attachment where an employee feels he or she has to stay with the organization (i.e., employees remain with the organization because they ***need*** to).

A customer who experiences a high level of continuance commitment has, by definition, given thought to the lack of alternatives – i.e. they have considered the relative benefits of remaining with their current service providers and have determined that the costs (e.g. search costs) of finding a suitable alternative outweigh any potential gains. This continuance commitment is conceptually similar to the type of channel member dependence (informed by transaction cost

economics) that occurs in marketing channel relationships (Kim and Frazier 1997). In the consumer marketing literature, this commitment has also been labeled "calculative commitment" (Wetzel et al.1998) or "cognitive commitment" (Henning-Thurau and Klee, 1997) implying that this form of commitment is more of a rational bond versus its more emotional (i.e. affective) or moral (i.e. normative) counterparts.

The calculative component consists of two dimensions – negative and positive. The negative dimension means locked-in values, such as the committed person being aware that relationship-specific investments already made in time, effort, money, knowledge etc. may be lost, that new costs may arise and that new relationship specific investments must be made ('switching costs') if the relationship concerned comes to an end. The positive dimension relates to future values, such as anticipating future gains in terms of time, effort, money, knowledge etc. (Sharma, Young and Wilkinson, 2006; Bansal, Irving and Taylor, 2004). These two dimensions are closely linked to past and present investment and returns. Empirical studies in both organizational and market research indicate that if the committed person feels that there are locked-in and future values or that there is a lack of alternative relationship partners, this gives rise to calculative commitment (Bansal, Irving and Taylor, 2004).

c. Finally, ***normative commitment*** refers to an obligation-based attachment to the organization (i.e., employees remain with the organization because they ***ought*** to---it is the "right thing to do").

Normative commitment develops primarily due to the individual's conformity to social norms. Individuals develop a sense of obligation to respond in certain ways (i.e. they have high normative commitment) because they feel that they "ought to" respond in this manner.

The underlying basis of this force may be:

1. **affective** (binding the consumer to the service provider out of ***desire***),
2. **normative** (binding the consumer to the service provider out of perceived ***obligation***), or
3. **continuance** (binding the consumer to the service provider out of ***need***) in nature.

The three components should be regarded as components and not as different types of commitment (Anderson and Weitz, 1992; Martin, 2008; Rylander, Strutton and Pelton, 1997). The same person has elements of all the components at the same time of commitment. It is

therefore not meaningful to regard them as separate forms, only as components. A committed person may, for example, have both an emotional (affective) and business (calculative/continuance) commitment to preserve a particular relationship, but may at the same time not feel a particular moral duty (normatively) to the relationship. And another person may be less committed in terms of business, but all the more so emotionally and morally. Considering commitment in this perspective implies that variations of commitment affect the relationships in question in different ways (Meyer and Allen, 1991). Research findings suggest that in long-term and lasting relationships the affective component is stronger and plays a more important role than the other two components (Meyer and Allen, 1991; Sharma, Young and Wilkinson, 2006).

The broadened five-component commitment model consists of:

Affective commitment is characterized by strong emotions in the relationship between customer and provider. The positive association between affective commitment and repurchase intentions is well documented.(Bansal, Irving, and Taylor, 2004;Fullerton ,2005).

Normative commitment is based on the recognition by a customer that she and the brand share important norms and values (internal or external) which the customer upholds through intentions and behaviors enacted toward the brand, for example, repurchase. Recent research shows consumers are willing to engage in behaviors to reinforce their identities and norms in several consumption contexts (Reed et al., 2012).That is, norm consistent behavior enables consumers to reinforce their salient identities (Reed, 2004; Reed et al., 2012).

Economic commitment is based on cognitive appraisals of investments made in a brand and corresponds to the sacrifice dimension of calculative commitment (Meyer, Allen, and Gellatly, 1990). Over time, consumers accumulate benefits such as reward points and preferred access/status, which may be forgone if the relationship is terminated. Consumers may also incur other explicit costs upon termination (e.g., fees). Research has shown that a higher level of perceived sacrifice, whether in the form of increased effort (Kivetz and Simonson, 2003) or price paid (Shiv, Carmon and Ariely, 2005), can enhance behavioral commitment through increased consumption and usage of services (Gourville and Soman, 2002). High perceptions of economic sacrifices increase commitment via a variety of psychological processes including enhanced cognitive ability, product enjoyment, and realized and perceived product efficacy, as well as emotional enjoyment (Price, Finniss and Benedetti, 2008).

Forced commitment occurs when consumers perceive an absence of alternatives. It may be a function of structural factors in an industry (e.g., high concentration) or consumer related issues (e.g., distance from available providers). Though the customer may continue using the product or service, the lack of choice negatively influences satisfaction and repurchase intentions (Davis et al., 1995). A lack of acceptable alternatives, while forcing the customer to stay in the relationship, may result in spurious loyalty and progressively more negative attitudes and lower intentions to remain in the relationship despite continuance of relationship (i.e., retention; Dick and Basu 1994). Consequently, while forced commitment should be positively related to repurchase behavior, it should be negatively associated with repurchase intentions.

Habitual commitment is context-specific and arises in settings when consumption behavior is performed repetitively, automatically, and with inertia. As reported by Shah, Kumar, and Kim (2014), habituation is a key factor explaining customer equity and loyalty. Over time, habituation increases the likelihood of repeat consumption by making consumption easier (Murray and Haubl 2007) and reducing deliberation, particularly in the information search process (Shugan 1980). As such, loyalty behaviors may be performed automatically, without supporting intentions. Conceptually, the idea is similar to the notions of habitual loyalty (Aksoy, Keiningham and Oliver, 2014) and hand loyalty (Nordhielm and Bradford, 2007).

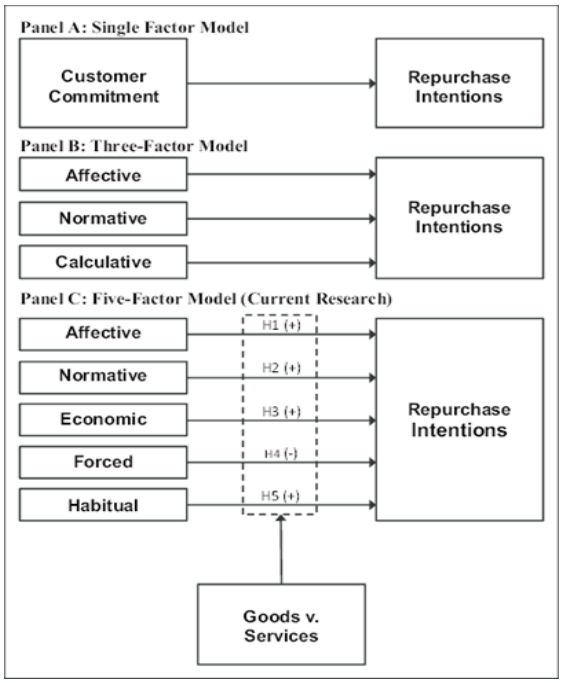


Figure 1.*Conceptual model of the association between commitment dimensions and repurchase intentions. (Keiningham et.al., 2015).*

Affective commitment is positively related to repurchase intentions. A positive relationship between normative commitment and repurchase intentions is not supported. Economic commitment is positively related to repurchase intentions. Forced commitment is negatively associated with repurchase intentions. Habitual commitment is positively associated with repurchase intentions (Keiningham et.al. 2015). Affective, normative, and habitual commitment exhibit stronger positive effects on repurchase intentions for goods than for services; the opposite pattern is found for economic commitment.

There are two important reasons for considering these distinct bases of commitment. First, there is evidence in the organizational behavior literature to suggest that the strength of relations between commitment and turnover varies with the form of commitment (Meyer et. al., 2002). Second, it is possible that the basis for one's commitment has implications for discretionary behaviors on the part of the individual, perhaps because individuals whose commitment is based on the mind-set of desire (affective commitment) may be more inclined to engage in behaviors that benefit the target than will those whose commitment is based on obligation (normative) or the avoidance of costs (continuance) (Meyer and Herscovitch 2001).

The position that customer commitment has both an affective and continuance component has support in the marketing literature (Bansal et al., 2004; Fullerton, 2003; Gilliland and Bello, 2002; Gruen et al., 2000; Harrison-Walker, 2001). For the most part, commitment in marketing scholarship has been operationalized as affective commitment (Fullerton, 2003). In their important study on the roles of trust and commitment in marketing relationships, Morgan and Hunt (1994) substantially operationalized commitment as affective commitment by adapting their measure of commitment from the Allen and Meyer (1990) affective commitment scale.

Affective commitment in marketing relationships has its base in shared values, trust, benevolence and rationalism (Fullerton, 2003; Garbarino and Johnson, 1999; Gilliland and Bello, 2002; Gruen et al., 2000; Morgan and Hunt, 1994). Affective commitment exists when the individual consumer identifies with and is attached to their relational partner (Fullerton, 2003; Gruen et al., 2000). Overall, consumers should be viewed as being affectively committed to a service provider when they like their service provider, regardless of the type of the service that is being consumed.

Continuance (calculative) commitment in marketing relationships is rooted in switching costs, sacrifice, lack of choice and dependence (Bendapudi and Berry, 1997; Dwyer et al., 1987;

Fullerton, 2003; Gilliland and Bello, 2002; Gundlach et al., 1995; Heide and John, 1992). In part, continuance commitment has its base in Becker's (1960) theory of side-bets where the consumer is bound to a relational partner because of the potential that extra-relational benefits would be lost in the event of a switch. At the same time, scarcity of alternatives is also an important causal antecedent of the psychological state of continuance commitment (McGee and Ford, 1987). Continuance commitment may well explain why consumers sometimes feel trapped in marketing relationships when they cannot easily exit the relationship (Fournier et al., 1998). The nature of continuance commitment is that customers can be committed to the relationship because they feel that ending the relationship involves an economic or social sacrifice or because they have no choice but to maintain the current relationship. The psychological state of continuance commitment represents what has been termed by some as the dark-side of relationship marketing (Fournier et al., 1998).

Affective commitment and continuance commitments are not orthogonal constructs and individuals may feel both psychological states at any point in time (Allen and Meyer, 1990). Continuance commitment has been shown to undermine the positive effects of affective commitment in marketing relationships. Fullerton (2003) found that continuance commitment moderated the relationship between affective commitment and both customer retention and advocacy. The nature of this interactive effect was such that the relationship between affective commitment and both customer retention and advocacy became less positive as customers experienced higher levels of continuance commitment (Fullerton, 2003). The conceptual rationale for this position is that consumer feelings about being stuck in the relationship come to over-ride any positive feelings emerging from identification and attachment. Even if consumers like a relational partner, they may hope to get out of a relationship if they feel partly trapped in that relationship. Others who have examined the effects of variables that are conceptually similar to affective and continuance commitment in organizational buyer-sell relationships have found evidence that the constructs interact in their effects on relational dependent variables (Izquierdo and Cillan, 2004; Joshi and Arnold, 1997).

There is significant evidence in the organizational behavior literature that all three bases of commitment are negatively associated with employee turnover intentions, which are presumably antecedent to turnover behavior, the focal behavior of organizational commitment (Meyer and Herscovitch 200t). In other words, regardless of the underlying psychological state that reflects the nature of employees' relationship with the organization (desire based, cost based, or obligation based), commitment reduces the likelihood that employees will leave their

organizations. Just as turnover involves a termination of the relationship between the employee and the employer, switching involves a termination of the relationship between the customer and the service provider.

Accordingly, marketing scholars should regard customer commitment as a psychological force linking the consumer to the selling organization. The above definitions in the organizational behavior literature view commitment as a construct that links the employee to the employing organization (Allen and Meyer, 1990; Mathieu and Zajac, 1990; O'Reilly and Chatman, 1986). This is relevant because a number of marketing scholars have directly borrowed from the organizational commitment literature to inform our understanding of the nature of customer commitment (Fullerton, 2003; Gilliland and Bello, 2002; Gruen et al., 2000; Gundlach et al., 1995; Harrison-Walker, 2001; Morgan and Hunt, 1994). The dominant position in the organizational behavior literature is that commitment contains at least an affective component and a continuance component (Allen and Meyer, 1990; O'Reilly and Chatman, 1986). To construct the scale for customer commitment one popular scale was proposed by Fullerton (2005). The scale measures the three dimensions of commitment: affective commitment, continuance commitment and normative commitment.

1.2 Customer satisfaction

Recently new developments have caused services to improve with a high speed. In fact, today, service sector has the highest share in the economy of societies (Mirghafuri and Maleki, 2008). Customer satisfaction is a complex construct and has been defined in various ways (Besterfield, 1994; Barsky, 1995; Kanji and Moura, 2002; Fecikova, 2004). Customer satisfaction is the feeling or attitude towards a particular product or service after using it. Satisfaction and service quality are often considered as functions of customer perceptions and expectations. Customer satisfaction is determined by the customer's perception of quality and his/her expectations and preferences (Siadat, 2008). "Satisfaction is the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over-fulfillment" (Oliver 2010). Customer satisfaction is defined as a customer's overall evaluation of the performance of an offering to date. This overall satisfaction has a strong positive effect on customer loyalty intentions across a wide range of product and service categories (Gustafsson, 2005). A clear decision on the fundamental nature of the satisfaction construct is needed. In accordance with the majority of research being done on the satisfaction construct, we opt for the latter view and define a purchasing manager's satisfaction with a supplier as an affective state of mind resulting from the appraisal of all relevant aspects of the business relationship (Geyskens et al., 1999, p. 223).

Oliver (1996) defined satisfaction as a judgment that a product or service provides "a pleasurable level of consumption-related fulfillment." In other words, the consumer makes a judgment as to how well a service was provided, and if the consumer judges the service to have been pleasurable, he or she will feel satisfied; if the judgment is displeasure, he or she will feel dissatisfied (Oliver ,1996; Kucukarslan and Schommer ,2002).

Because of its potential influence on consumer behavioral intentions and customer retention (Anderson and Fornell, 1994; Anderson and Sullivan, 1993; Bolton and Drew, 1994; Cronin and Taylor, 1992; Fornell, 1992; Oliver, 1980; Oliver and Swan, 1989), consumer satisfaction has been the subject of much attention in the literature (Bitner and Hubbert, 1994; Cardozo, 1965; Oliver, 1977, 1980, 1981; Olshavsky and Miller, 1972; Olson and Dover, 1979; Rust and Oliver, 1994). Satisfaction is described as "an evaluation of an emotion" (Hunt, 1977, pp. 459–460), suggesting that it reflects the degree to which a consumer believes that the possession and/or use of a service evokes positive feelings (Rust and Oliver, 1994).

Recently, researchers have argued that there is a distinction between customer satisfaction as related to tangible products and as related to service experiences. This distinction is due to the inherent intangibility and perishability of services, as well as the inability to separate production and consumption. Hence, customer satisfaction with services and with goods may derive from, and may be influenced by, different factors and therefore should be treated as separate and distinct (Veloutsou et al., 2005).

Customer satisfaction research is mainly influenced by the **disconfirmation paradigm** (Parasuraman et al., 1988). This paradigm states that the customer's feeling of satisfaction is a result of a comparison process between perceived performance and one or more comparison standard, such as expectations. The customer is satisfied when he/she feels that the product's performance is equal to what was expected (confirming). If the product's performance exceeds expectations, the customer is very satisfied (positively disconfirming), if it remains below expectations, the customer will be dissatisfied (negatively disconfirming).

Although most scholars agree on the disconfirmation paradigm, the nature of satisfaction remains ambiguous. On the one hand, satisfaction clearly arises from a cognitive process comparing perceived performance against some comparison standards. On the other hand, the feeling of satisfaction essentially represents an affective state of mind. Consequently, some satisfaction scales tap the cognitive dimension of satisfaction, while others capture its affective nature. The extent to which a satisfaction scale focuses on the cognitive or the affective dimension, however, should have an impact in terms of both the antecedents that affect satisfaction and the consequences fostered by satisfaction.

Two additional issues that need to be clarified when researching customer satisfaction in services is whether satisfaction is conceptualized as facet (attribute specific) or as overall (aggregate); and whether it is viewed as transaction-specific (encounter satisfaction) or as cumulative (satisfaction over time) (Hoest and Knie- Andersen, 2004). In the present paper, satisfaction is conceptualized as an overall, customer attitude towards a service provider (Levesque and McDougall, 1996).

While practitioners usually use the terms satisfaction and quality as synonymous, researchers agree that the two constructs are distinct (Parasuraman et al., 1988; Spreng and McKoy, 1996; Taylor and Baker, 1994; Woodside, Frey and Daly, 1989). According to Zeithaml and Bitner

(2003), "satisfaction is the consumer fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provides a pleasurable level of consumption-related fulfillment" (p. 86). The same authors suggested that satisfaction is a broader concept, whereas service quality judgments are specific, and its assessment focuses specifically on dimensions of service quality. This view suggests that service quality perceptions influence customer satisfaction. A customer who has positive perceptions about the interaction, physical environment, and outcome components of service quality is likely to report high levels of satisfaction. However, satisfaction is also influenced by factors, which are not related to service quality, such as situational (e.g., the weather) or personal (e.g., mood). These factors might moderate the relationship between service quality and satisfaction. There have been very limited attempts to investigate the relationship between service quality and satisfaction in the sport service industry (Alexandris et al., 2001).

However, a number of studies in the services marketing literature have reported that these two constructs are strongly related (e.g., Caruana, 2002; Cronin and Taylor, 1992; Spreng and Chiou, 2002; Spreng and McKoy, 1996; Woodside et al., 1989).

The expectancy-disconfirmation paradigm: most customer satisfaction research is based on the expectancy-disconfirmation model of satisfaction (Oliver 1980) where confirmation or disconfirmation of consumers' expectations is the key determinant of satisfaction (Oliver 1980; Wirtz and Mattila 2001). According to the expectancy disconfirmation paradigm, consumers evaluate the service performance they have experienced and compare it to their prior expectations. Consumers with such perceptions are more likely to make repeat purchases, remain loyal to the service provider, and spread positive word of mouth (Wirtz and Chew 2002; Liang et al. 2009). thus, satisfaction is related to important post-purchase attitudes and behavior such as consumer loyalty (Yang and Peterson 2004; Vazquez-Carrasco and Foxall 2006), frequency of service use (Bolton and Lemon 1999), repurchase intentions (Cronin et al. 2000), service recommendations to acquaintances (Zeithaml et al. 1996), and compliments to service providers (Goetzinger et al. 2006).

The attribute-based approach: argues that both cognitive (expectations) and affective (desires-motives associated with personal objectives) elements should be considered when examining the consumer satisfaction formation process (Bassi and Guido 2006; Oliver 2000, p. 250). Moreover, the affective component of satisfaction is expected to be greater in services

than in goods due to the interactive and experiential nature of the former (Oliver 2000, p. 252). Recent empirical evidence supports the significance of service attributes in influencing overall satisfaction (Mittal et al. 1999; Akhter 2010).

An integrative model of service satisfaction: using the general living systems theory, Mittal et al. (1999) propose that a consumption system consists of attribute-level evaluations, satisfaction and behavioral intentions and several subsystems. Their study shows that evaluations of a number of attributes lead to an overall level of satisfaction, which in turn influences customers' behavioral intentions. Akhter's (2010) recent study also supports the view that a service encounter is a multi-attribute experience comprising satisfaction with service attributes such as the provider, the offering, the location, information, and facilitation, which together form overall satisfaction. Overall satisfaction reflects the level of satisfaction with the overall service experience, and is a global evaluation of a specific service consumption experience. ". Lags and Fernandes (2005) suggest that any evaluation of a service provider is made at four abstract levels of a hierarchy comprising simple attributes of the service offering, transactional service quality, value, and more complex personal values. The present model proposes that in addition to attribute satisfaction, transaction quality and service values are further antecedents of overall satisfaction with services.

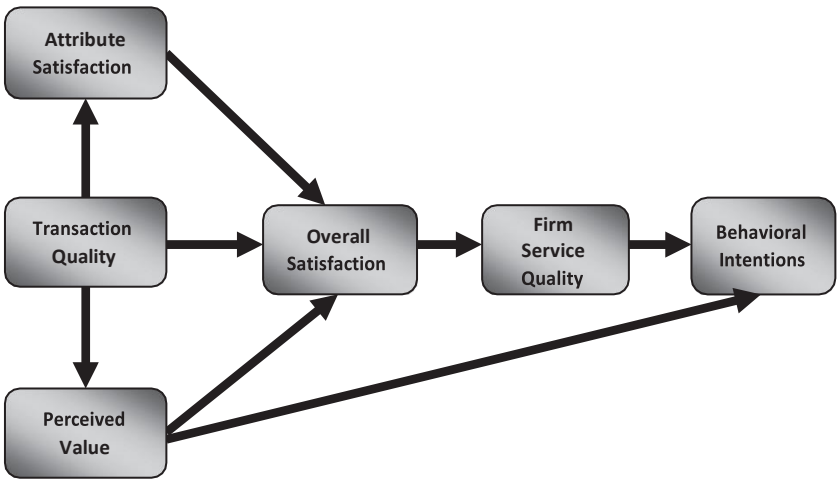


Figure 2.*An integrative model of consumer satisfaction in services (Tsiotsou and Wirtz 2012, p169).*

Customer satisfaction is considered one of the most important outcomes of all marketing activities in a market – oriented firm. The obvious need for satisfying the firm's customer is to expand the business, to gain a higher market share and to acquire repeat and referral business,

all of which lead to improved profitability (Barsky,1992). Studies conducted by Cronin and Taylor (1992) in service sectors such as banking, pest control, dry cleaning and fast food; found that customer satisfaction has a significant effect on purchase intentions in all four sectors. Similarly, in the health-care sector, McAlexander et al. (1994) found that patient satisfaction and service quality have a significant effect on future purchase intentions.

Studies in the services marketing literature have suggested that satisfaction is related to positive behavioral intentions and customer loyalty (Spreng and Chiou, 2002; Taylor and Baker, 1994). Customers who express positive evaluations about service quality and / or being satisfied by the performance of services are more likely to express an intention to remain loyal and say positive things about the organization to others (Zeithaml et al., 1996).

However, the relationships among satisfaction, service quality and behavioral intentions are more complex. Models proposed in the literature have treated satisfaction as an intervening variable between service quality and behavioral intentions (e.g., Caruan, 2002; Cronin and Taylor, 1992; Spreng and McKoy, 1996; Zeithaml and Bitner, 2003). In this case, service quality perceptions do not influence customer behavioral intentions directly. There are also studies, which reported that service quality perceptions could have a direct influence on behavioral intentions (e.g., Baker and Crompton, 2000; Bloemer et al., 1999; Tian-Cole, Crompton and Wilson, 2002; Zeithaml et al., 1996).

Psychological commitment has been suggested as one of the constructs that describes the attitudinal component of loyalty (Park & Kim, 2000; Pritchard, Howard & Havitz, 1992), and predicts behavioral loyalty (Iwasaki and Havitz, 1998). Iwasaki and Havitz (1998) suggested that both personal and social-situational factors influence the development of psychological commitment. In the present study, we argue that participants' perceptions about service quality can also be important moderators. Studies in the area of psychological adherence in sports (e.g., Milne, 1999) have included facilities related aspects, and factors related to the behavior of the coach and the sport scientists (human element) within the environmental determinants of sport and exercise adherence. Research on the relationships between service quality, customer satisfaction, and customer loyalty in the sport service industry is still limited. There is some evidence that service quality perceptions are related to positive behavioral intentions, and positive word-of-mouth (Alexandris et al., 2001).

Measuring customer satisfaction has become increasingly popular in the last two decades and today represents an important source of revenue for market research firms (Oliver, 1999, p. 33; Perkins, 1993). The satisfaction construct has gained an important role in the marketing literature. It is widely accepted among researchers as a strong predictor for behavioral variables such as repurchase intentions, word-of-mouth, or loyalty (Ravald and Gronroos, 1996; Liljander and Strandvik, 1995). In the construction of the scale for customer satisfaction, we adopted the scale proposed by Hennig-Thurau (2004), which consists of four items. The disconfirmation of expectations model that Oliver described, has been tested and validated by various researchers. In his conceptual article, Oliver described the disconfirmation of expectations model, in which a consumer's level of satisfaction is the result of his or her comparison of his or her expectations of the service with the actual service experience. This gap between expectation and experience impacts how one feels about the service experience, or one's satisfaction with the service (Kucukarslan and Schommer (2002).

Among the more popular measures, two widely employed approaches are transaction-specific and cumulative or overall satisfaction. The transaction-specific approach defines customer satisfaction as an emotional response by the consumer to the most recent transactional experience with an organization (Oliver, 1993). The associated response occurs at a specific time following consumption, after the choice process has been completed. The affective response varies in intensity depending upon the situational variables that are present. On the other hand, the overall satisfaction perspective views customer satisfaction in a cumulative evaluation fashion that requires summing the satisfaction associated with specific products and various facets of the firm. Some researchers (Cronin and Taylor, 1992; Parasuraman, Zeithaml, and Berry, 1988) consider overall satisfaction to be primarily a function of perceived service quality. Compared to transactional-specific satisfaction, overall satisfaction reflects customers' cumulative impression of a firm's service performance. In turn, it may serve as a better predictor of customer loyalty.

Customer satisfaction literature indicates that there are two dominant approaches being used to measure it. First, expectations and disconfirmation approach (Parasuraman et al., 1988), in which expectations for service performance represent a priori standard that consumers bring to a consumption experience. Second, perceived performance (Cronin and Taylor, 1992) in which expectations are compared to perceived performance in order to arrive at an evaluation. Previous research of customer satisfaction has used both approaches and each one has its own strengths and weaknesses. For example, several authors have found that the expectations and

disconfirmation approach suffers from some conceptual, methodological, reliability and validity problems (e.g., Carman, 1990; Newman, 2001). On the other hand, the perceived performance approach relies heavily on measuring customers' satisfaction based on the actual performance of a product or service from customers' perspectives (Cronin and Taylor, 1992; Gilbert et al., 2004). Therefore, customer satisfaction is a cumulative construct that is affected by service expectations and performance perceptions in any given period and is affected by past satisfaction from period to period. Performance here refers to the customers' perceived level of service quality relative to the price they pay as well as other elements such as area coverage. This approach seems relatively to have stable reliability and validity and does not suffer from many methodological problems. In addition, this approach has been used in leading studies of customers satisfaction (Cronin and Taylor, 1992; Gilbert et al., 2004; Bennett and Rundle-Thiele, 2004; Keiningham et al., 2005). Consequently, this construct included customer satisfaction in relation to overall satisfaction with expectation, satisfaction with price, service quality, pre-purchased expectations and coverage area.

1.3 Service quality

Quality is an elusive and indistinct construct. Often mistaken for imprecise adjectives like "goodness, or luxury, or shininess, or weight" (Crosby, 1979), quality and its requirements are not easily articulated by consumers (Takeuchi and Quelch, 1983). According to the prevailing Japanese philosophy, quality is "zero defects-doing it right the first time." Crosby (1979) defines quality as "conformance to requirements."

The word ***quality*** means different things to people according to the context (Lovelock and Wirtz, 2007). David Garvin identifies ***five perspectives*** on quality:

1. The **transaction view** of quality is synonymous with innate excellence: a mark of uncompromising standards and high achievement. This viewpoint is often applied to the performing and performing of visual arts. It is argued that people learn to recognize quality only through the experience gained from repeated exposure and managers or customers will know quality when they see it is not very helpful.

2. The **product- based approach** sees quality as a precise and measurable variable. Differences in quality, it is argued, reflect differences in the amount of an ingredient or attribute possessed by the product or service. Because this view is totally objective, it fails to account for differences in the tests, needs, and preferences of individual customers or even entire market segments.

3. **User based definitions** starts with the premise that quality lies in the eyes of the beholder. These definitions equate quality with maximum satisfaction. This subjective, demand oriented perspective recognizes that different customers have different wants and needs.

4. The **manufacturing based approach** is supply based and is concerned primarily with engineering and manufacturing practices, quality is operation driven.

5. **Value based definitions** define quality in terms of value and price. By considering the tradeoff between perception and price, quality comes to be defined as “affordable”.

Knowledge about goods quality, however, is insufficient to understand service quality. Service quality has been the focus of many studies in the field of services marketing (Karatepe, 2011); nevertheless, there is no universally agreed upon definition of service quality (Legcevic, 2008), although most of them are close in meaning.

Service quality is a measure of how well the service level delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis. (Lewis and Booms 1983). Gronroos (1982) developed a model in which he contends that consumers compare the service they expect with perceptions of the service they receive in evaluating service quality. Overall service quality has been regarded as being similar to an attitude because it was thought to be an overall evaluation of the service based on its perceived goodness (Iacobucci, 1998). Attitudes are summary evaluations of objects on a positive to negative continuum, which direct intentions and behavior (Petty et al., 1997). Osman and Un (2002) define service quality as the degree of difference between the customers' perceptions and expectations of the services (Mishkin, 2001).

Three well documented characteristics of services-intangibility, heterogeneity, and inseparability- must be acknowledged for a full understanding of service quality.

Most services are **intangible** (Bateson, 1977; Berry, 1980; Lovelock, 1981; Shostak, 1977). Because they are performances rather than objects, precise manufacturing specifications concerning uniform quality can rarely be set. When purchasing goods, the consumer employs many tangible cues to judge quality: style, hardness, color, label, feel, package, fit. When purchasing services, fewer tangible cues exist. In most cases, tangible evidence is limited to the service provider's physical facilities, equipment, and personnel.

Services, especially those with a high labor content, are **heterogeneous**: their performance often varies from producer to producer, from customer to customer, and from day to day. Consistency of behavior from service personnel (i.e., uniform quality) is difficult to assure (Booms and Bitner 1981) because what the firm intends to deliver may be entirely different from what the consumer receives.

Production and consumption of many services **are inseparable** (Carmen and Langeard 1980; Gronroos, 1978; Regan, 1963; Upah, 1980). Therefore, quality in services is not engineered at the manufacturing plant, and then delivered intact to the consumer. The service firm may also

have less managerial control over quality in services where consumer participation is intense (e.g., haircuts, doctor's visits) because the client affects the process.

Because of the above, we come to three conclusions, which are:
(Parasuraman, Zeithaml and Berry, 1985)

1. Service quality is more difficult for the consumer to evaluate than goods quality.
2. Service quality perceptions result from a comparison of consumer expectations with actual service performance.
3. Quality evaluations are not made solely on the outcome of a service; they also involve evaluations of the process of service delivery.

Lehtinen and Lehtinen's (1982) basic premise is that service quality is produced in the interaction between a customer and elements in the service organization. They use three quality dimensions: **physical quality**, which includes the physical aspects of the service (e.g., equipment or building); **corporate quality**, which involves the company's image or profile; and **interactive quality**, which derives from the interaction between contact personnel and customers as well as between some customers and other customers. If I invest in service quality, will it pay off for my company? How will service quality pay off? How much should we invest in service quality to receive the best return? In addressing such questions, researchers (Fomell and Wernerfelt, 1987, 1988; Rust and Zahorik, 1993; Zahorik and Rust, 1992) distinguish between offensive effects (capturing new customers) and defensive effects (retaining customers).

Parasuraman et al. (1985) concluded that consumers evaluated service quality by comparing expectations with perceptions on ten dimensions: tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding/knowing customers and access.These ten dimensions were subsequently collapsed into five generic service-quality dimensions, as follows:
(1) ***tangibles*** (measured by four items): the appearance of physical facilities, equipment, and personnel.
(2) ***reliability*** (five items): the ability to perform the promised service dependably and accurately
(3) ***responsiveness*** (four items): the willingness to help customers and provide prompt service

(4) ***assurance*** (four items): the knowledge and courtesy of employees and their ability to inspire trust and confidence and
(5) ***empathy*** (five items): the level of caring and individualized attention the firm provides to its customers.

Delivering quality service is considered an essential strategy for success and survival in today's competitive environment (Dawkins and Reichheld 1990; Parasuraman, Zeithami, and Berry 1985; Reichheld and Sasser 1990; Zeithaml, Parasuraman, and Berry 1990). Service quality is known as one of the effective ways to achieve strategic benefits such as customer retention rate, increasing efficiency and achieving operating profit (Sadiq Sohail and Shaikh, 2008).

The topic of service quality is increasingly being recognized as one of the key strategic values of organizations in both the manufacturing and service sectors, which has accordingly led to considering the delivery of superior service quality as a prerequisite for a firm to achieve success in today's business environment (Lai et al., 2007).

The rapid development of the service industries and their growing importance in world economies have shed the light on the issue of quality in service provision, thus making service quality of fundamental importance (Coulthard, 2004; Mahadeo and Durbarry, 2008).

Service quality has a close relationship with customer satisfaction. Improving service quality increases the likelihood of customer satisfaction, which leads to behavioral outcomes such as commitment, desire to stay, bidirectional link between the service provider and the customer, increasing positive advertisement and customer's tolerance toward deficiency in service delivery (Arasli, Katircioglu and Samadi, 2005).

Given this conceptualization, service-marketing scholars have logically attempted to draw a link between service quality evaluations and relevant behavioral intentions and/or behaviors. For the most part, service quality has been regarded as a construct that makes a positive impact on customer loyalty (Zeithaml, 2000).

Service quality is proposed to have a direct, positive relationship with customer satisfaction (Lai et al., 2008), in that as service quality improves, the probability of customer satisfaction increases. This, in turn, may lead to either positive or negative behavioral intentions depending on the degree of service quality perceived and degree of satisfaction (Cronin and Taylor, 1992;

Brady and Robertson, 2001). As such, increased customer satisfaction leads to favorable behavioral outcomes such as commitment and intent to stay (customer retention) (Goode and Moutinho, 1995; Reichheld, 1996; Heskett et al., 1997; Newman, 2001).

While some suggest that satisfaction drives quality, the preponderance of evidence indicates that quality drives satisfaction (Dabholkar, 1995; Lai et al., 2008). Yieh et al. (2007) explain the reason for this by building on the argument forwarded by Oliver (1999), in that an evaluation of quality is usually required for a customer to decide if a service is satisfactory. Overall, the service quality-satisfaction causal order receives considerable support and empirical validation (Gotlieb et al., 1994; Brady and Robertson, 2001; Lai et al., 2008).

In the study of service relationships, service quality is a natural independent variable because of the dominant position that it holds in the services marketing literature (Iacobucci, 1998). Customer retention (Bansal and Taylor, 1999; Cronin and Taylor, 1992; Fullerton and Taylor, 2002; Gottlieb et al., 1994; Keaveney, 1995; Olsen and Johnson, 2003; Rust et al., 1995; Zeithaml et al., 1996) and advocacy (Anderson, 1998; Fullerton and Taylor, 2002; Zeithaml et al., 1996) have been well-investigated loyalty-related behavioral consequences of service quality. For both behavioral consequences, researchers have found that service quality makes a positive impact. The service quality literature has put forward that consumers respond to favorable service quality evaluations by continuing to purchase services from that provider (Parasuraman et al., 1988). At the same time, customers who are pleased with the level of quality delivered by a service provider are willing to recommend that organization to other customers (Anderson, 1998; Zeithaml et al., 1996). These findings are entirely consistent with the service quality as attitude proposition in that the service quality evaluation/attitude brings forward intentions regarding future behavior with respect to the service provider (Bansal and Taylor, 1999; Cronin and Taylor, 1992; Fullerton and Taylor, 2002; Zeithaml et al., 1996).

Service quality is one of the most investigated constructs in the history of marketing scholarship and it is clearly the most investigated construct in the field of services marketing (Iacobucci, 1998).

Service quality is an overall evaluation of the perceived level of service performance (Parasuraman et al., 1988). There has been considerable discussion in the literature about the proper operationalization of the service quality construct (Brady and Cronin, 2001; Carman, 1990; Cronin and Taylor, 1992; Parasuraman et al., 1988). This continues to be an ongoing

debate but it is clear that service quality is a complex construct, determined by a number service related antecedent evaluations including **responsiveness to waits** (Hui and Tse, 1996; Taylor, 1994), **the interaction with service personnel** (Brady and Cronin, 2001), **the empathy of service personnel** (Parasuraman et al., 1988), **responsiveness to service failures** (Keaveney, 1995; Parasuraman et al., 1988), **the service environment and atmospherics** (Brady and Cronin, 2001; Parasuraman et al. 1988) and **the reliability of the service** (Parasuraman et al., 1988). Most researches on service quality have tested this variable with SERVQUAL model or its modified model.

Service quality is frequently conceptualized and measured as an overall, evaluative attitude-like construct (Brady and Cronin, 2001; Taylor, 1994; Taylor and Baker, 1994), regardless of the number of distinct antecedent evaluations formally leading to the overall evaluation. Even though the service quality as attitude proposition has not been subjected to much empirical and conceptual debate, the conventional wisdom is that the overall evaluative nature of service quality makes it an attitude or attitude-like construct (Cronin and Taylor, 1992). Garvin (1983) measures quality by counting the incidence of "internal" failures (those observed before a product leaves the factory) and "external" failures (those incurred in the field after a unit has been installed). The traditional SERVQUAL or ‘‘gap analysis model’’ was developed by Parasuraman, Zeithaml and Berry in the early 1980s, which is based on the view that customers assess service quality by comparing expectations of services provided with perceptions of the actual service received from a particular service provider. A set of five service quality dimensions (namely: tangibles, reliability, responsiveness, assurance, and empathy) across a broad spectrum of service industries is identified. Even though currently there is a lack of consensus in the literature, the SERVQUAL model has been the most extensively and successfully used service quality measurement in the twenty-first century (Tsoukatos and Rand, 2006).

Others researchers have asserted that difference scores do not provide any additional information beyond that already contained in the perceptions component of the SERVQUAL scale. For example, Babakus and Boller (1992) found that the perceptions score was the dominant contributor to the gap scores (perception-minus-expectation scores) because consumers have a tendency to rate expectations more highly (Buttle, 1996).

Carman (1990) and Peter et al. (1993) also questioned the difference between expectation scores and perception scores; these authors recommended that SERVQUAL research perception-

minus-expectation differences should be collected directly in a combined format. Cronin and Taylor (1992) stated that perception-only scores (as in the SERVPERF model) are superior to the perception-minus-expectation difference scores (as in the SERVQUAL model) in terms of reliability and convergent validity; according to these authors, there is little (if any) theoretical or empirical evidence to support the expectation-perception gap as the basis for measuring service quality. Cronin and Taylor (1992) also noted that using perception-only scores reduces the required number of items in the questionnaire from 44 to 22. Cronin and Taylor (1992) developed a performance only measurement of service quality called SERVPERF, by illustrating that service quality is a form of consumer attitude and that the performance only measure of service quality is an enhanced means of measuring service quality. In particular, they maintained that performance instead of 'performance-expectation' determines service quality. As such, service quality is evaluated by perceptions only without expectations.

However, Carrillat et al. (2007) used data from 17 studies to compare the predictive validity of the SERVQUAL model and the SERVPERF model; the authors reported that the two models were equally valid predictors of overall service quality.

In summary, although the perception-only measure has been shown in several empirical studies to possess impressive convergent and predictive validity, the gap model appears to have better diagnostic capabilities (Kilbourne et al., 2004)

Cronin and Taylor (1992) stated that perception-only scores (as in the SERVPERF model) are superior to the perception-minus-expectation difference scores (as in the SERVQUAL model) in terms of reliability and convergent validity; according to these authors, there is little (if any) theoretical or empirical evidence to support the expectation-perception gap as the basis for measuring service quality. Cronin and Taylor (1992) also noted that using perception-only scores reduces the required number of items in the questionnaire from 44 to 22. Brady et al. (2002) replicated and extended Cronin and Taylor's (1992) research and confirmed their belief in the superiority of SERVPERF over SERVQUAL as an appropriate methodology for measuring service quality.

More recently, Carrillat et al. (2007) used data from 17 studies to compare the predictive validity of the SERVQUAL model and the SERVPERF model; the authors reported that the two models were equally valid predictors of overall service quality.

The Service Quality Model Proposed by Brady and Cronin

Brady and Cronin (2001) supported this conceptualization in proposing a three-dimensional model of service quality consisting of interaction quality, physical environment quality, and outcome quality. Brady and Cronin (2001) proposed a model in which service quality was constituted by three primary dimensions, each of which included three sub-dimensions.

The primary dimensions and their sub-dimensions were:

(1)"Interaction quality" (with sub-dimensions of "attitude", "behavior", and "expertise");
(2) "Physical environment" ("ambient conditions", "design", and "social factors"); and
(3) "Outcome quality" ("waiting time", "tangibles", and "valence").

More recently, Wilkins et al. (2007) proposed and validated a hierarchical model for the hotel industry in which service quality was composed of three primary factors ("physical product", "service experience", and "quality food and beverage"); these three factors were defined by seven sub-factors. Finally, Caro and Garcia (2007) empirically validated a third-order model in which service quality was explained by four dimensions ("personal interaction", "design", "physical environment", and "outcome"); nine sub-dimensions represented these dimensions.

Brady and Cronin (2001) proposed a multi-level model. In the first, level three dimensions measure service quality: interaction quality, physical environment quality and outcome quality.

Interaction quality: Interaction quality refers to the interpersonal interactions between customers and staff that take place during service delivery. Brady and Cronin (2001) proposed that three sub-dimensions constitute customers' perceptions of interaction quality: staff attitude, behavior, and expertise. A variety of studies in different service industries has proved the important role of the human element of service organizations on the quality of service delivery (Brady and Cronin, 2001; Gremler and Gwinner, 2000). This is more evident in industries, where services are intangible and heterogeneous (Zeithaml and Bitner, 2003).

Physical Environment Quality: Physical environment quality refers to the tangible element of the organisation. Brady and Cronin (2001) further proposed that the physical environment quality consists of three sub-dimensions: ambient conditions, facility design, and social factors.

Ambient conditions refer to the non-visual aspect, such as temperature, scent, and music, while facility design refers to the layout of the facility. Finally, social conditions refer to the interaction among the customers. A variety of studies emphasized the importance of the physical environment on customers' evaluations of service quality (Bitner, 1992; Wakefield and Blodgett, 1996).

Outcome Quality: The term technical quality has also been introduced in the literature to describe outcome quality (Gronroos, 1984). Technical quality was defined as "what the customer is left with when the production process is finished" (Gronroos, 1984, p.2). In cases where the service is highly intangible and "professional" (e.g., doctors, consultants, college professors) customers might have difficulties to judge the outcome (Zeithaml and Bitner, 2003). Once again, Brady and Cronin (2001) reviewed a variety of studies, which supported the role of technical quality on customers' service evaluations. There has been no empirical evidence in the marketing literature on possible sub-dimensions that constitute the outcome quality. Based on qualitative research, Brady and Cronin (2001) developed and proposed three sub-dimensions: waiting time, tangible elements, and valence. The later refers to the "attributes that control whether customers believe the experience" (p.40). This is usually not controllable by the organization. Brady and Cronin (2001) developed the above definition of valence based on the attitudinal literature (Fishbein, 1963).

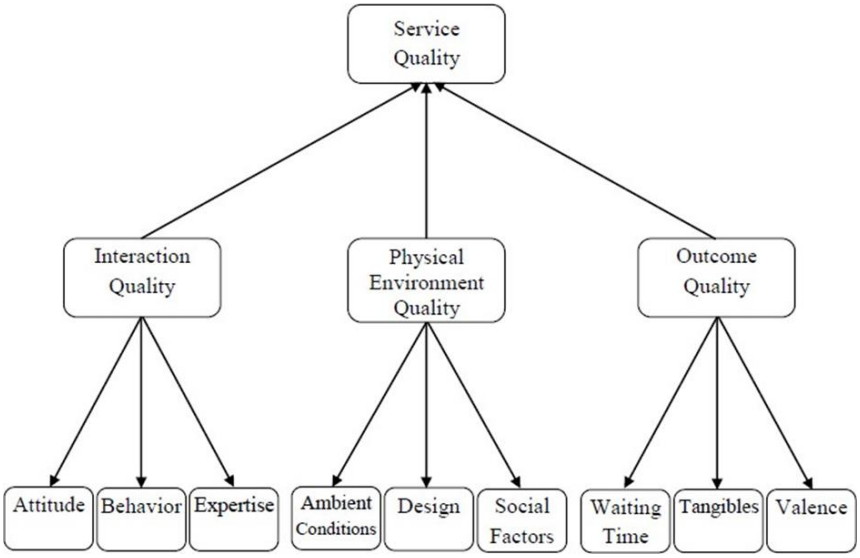


Figure 3. Hierarchical model (Brady & Cronin, 2001)

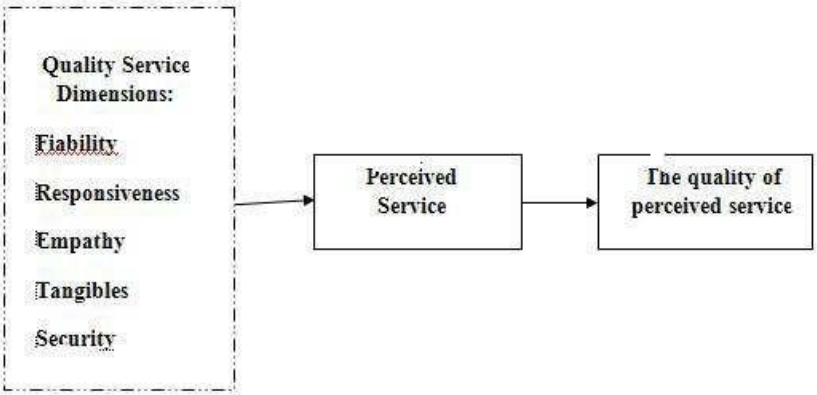


Figure 4. Servperf model (Cronin & Taylor, 1992)

1.4 Customer-oriented organizational citizenship behavior (CO-OCB)

According to Robbins (2005) "Today, for their success, organizations need employees who serve beyond their functions, that is, people who represent beyond expectation performance". Organizations need to express behaviors by their staff through interacting with their customers that are not officially prescribed by the organization but influence the quality of delivering services to customers. Therefore, customer–oriented organizational citizenship behavior must be considered as a main concern of service organizations (McKenzie, 1997).

The concept of organizational citizenship behavior was first discussed in the organizational behavior literature in the early 1980s (Bateman and Organ, 1983; Smith et al., 1983). The primary interest of OCB was the identification of employee behaviors that were not explicitly defined in job descriptions but, nonetheless, enhanced organizational effectiveness. Thus, the original construct of OCB generally referred to **extra-role behavior** (Smith et al., 1983). Being customer oriented is essential to quality management, and means maintaining good relationship with your customers as well as putting the customer first in the decision-making process to be successful within the hypercompetitive market (Sit et al., 2009). Homburg et al., (2011) suggest two different dimensions, the functional customer orientation which is the task-related behaviors that the sales person undertakes in order to help the customer make the right purchase decision and the relational customer orientation which is the salesperson behaviors that could help in building a long-term relationship with the customer. Customer-oriented organizational citizenship behavior (CO-OCB) is a constellation of non-mandated and individual-initiated behaviors, which make great efforts to enhance customer satisfaction and service delivery (Dimitriades, 2007). It is a branch of organizational citizenship behavior (OCB) theory.

According to Gonzalez and Garazo (2006), the dimensions most widely acknowledged were those proposed by Organ (1988):

Altruism, "helping other members of the organization in their tasks" (e.g. voluntarily helping less skilled or new employees, and assisting co-workers who are overloaded or absent and sharing sales strategies);

Courtesy, "preventing problems deriving from the work relationship" (e.g. encouraging other co-workers when they are discouraged about their professional development);

Sportsmanship, "accepting less than ideal circumstances" (e.g. petty grievances,real or imagined slights);

Civic virtue, "responsibly participating in the life of the firm (e.g. attending meetings/functions that are not required but that help the firm, keeping up with changes in the organization, taking the initiative to recommend how procedures can be improved); and

Conscientiousness, "dedication to the job and desire to exceed formal requirements in aspects such as punctuality or conservation of resources" (e.g. working long days, voluntarily doing things besides duties, keeping the organization's rules and never wasting work time).

However, subsequent development of the OCB construct (Graham, 1991; Van Dyne et al., 1994) argued that the in-role/extra-role distinction interferes with logically clarifying the OCB's definition, because "what is considered in-role versus extra-role behaviors may be inconstant across time, employees, organizations, and situations" (Bienstock et al., 2003). Indeed, Graham (1991) proposed that OCB would be more accurately defined from the standpoint of civic or political citizenship. In this framework, OCB is typified by the following characteristics:

1. The behavior is non-mandated, the behavior is based on independent individual initiative, and
2. The behavior contributes to the best interests of the organization.

Specifically, three categories of **behavior** capture the OCB construct as conceptualized by Graham (1991):

1. Organizational obedience,
2. Organizational loyalty and
3. Organizational participation.

Organizational obedience is characterized by behavior that recognizes and accepts the necessity and desirability of rational rules and regulations governing organizational structure, job descriptions, and personnel policies. Obedience can be demonstrated by employees' respect for organizational rules and instructions, punctuality in attendance, completion of assigned tasks and responsible handling of organizational resources. These types of behaviors are

frequently measured in a typical employee performance evaluation (Bienstock et al., 2003). **Organizational loyalty** is loyalty to the organization as a whole, as contrasted with loyalty to oneself or others, and is indicated by behaviors that defend the organization against threats, contribute to its good reputation, and exhibit collaboration with others to serve its interests (Van Dyne et al., 1994). **Organizational participation** is characterized by involvement in organizational governance. Representative activities include attending non-required meetings, sharing new ideas with others and staying informed about organizational affairs (Bienstock et al., 2003; Van Dyne et al., 1994).

Padsakoff and McKenzie (1997) divided employees' behaviors in terms of the orientation toward organizations, customers and their inter/cross–roles into five groups. Considering such categorization of customer–oriented organizational citizenship behavior, cross–role is a behavior that its orientation is associated with both organization and customers.

Table A: *Employees' behavior forms*

Behaviors	**Orientation towards organizations**	**Orientation toward customers**
Inter-role	Job and task – oriented behaviors	Service and sale – oriented behaviors
Cross-role	**Organizational citizenship behaviors**	**Customer – oriented** behaviors
	Contradictory citizenship behaviors	

Due to the fact that organizational citizenship behavior has been found to affect overall organizational effectiveness (Walz and Niehoff, 1996), it has been studied in-depth during the last several years both to determine its antecedents as well as its consequences. Previous studies indicate that CO-OCB will make customers produce identification of organization and employees (Zhang, 2010).

The definition of OCB behaviors according to Organ (1988, p. 4), is highly descriptive of many customer-contact employees' service behaviors. "The first characteristic of OCB is that the behavior is non-mandated. Multiple aspects of services require non-mandated employee

behaviors that can be critical to customer service. Service delivery behaviors frequently involve personal interactions. These interactions, be they brief or prolonged, develop relationships with customers that help employees understand customers' needs, may in some cases enable the service to be customized, and in small or large ways, make customers feel important. However, the exact specification for a job description of how to interact with customers is difficult. While some behaviors can be explicitly defined (e.g. call the customer by his/her first name), many others are more abstract and are dependent on employee attitudes and motivations (e.g. make the customer happy, make the customer feel at home). Thus, to foster positive interactions, employees must engage in a constellation of behaviors, some of which are difficult to specifically mandate" (Bienstock et al., 2003, p. 362).

A second characteristic of OCB is that the behavior arises from independent individual initiative and research has shown that independent individual initiatives on the part of the service provider affect customer satisfaction (Bienstock et al., 2003, p. 362). The final attribute of OCB is that the behavior contributes to the best interests of the organization. "When interacting with customers, contact employees often can choose from a variety of responses with varying levels of contribution to customer satisfaction and organizational benefits . . . Clearly, service firms want their contact employees to choose behaviors and solutions that are in the best interests of the organization, in other words, display organizational citizenship behaviors. It appears then that OCB behaviors can positively affect successful service delivery and, in fact, are those types of behaviors that lead to delivery of service according to organizational requirements", resulting in enhanced customer service (Bienstock et al., 2003, pp. 362-3).

Indeed, literature on service excellence indicate that employees engage in behaviors that are not formally required but that lead to high levels of customer satisfaction, entailing such activities as helping customers in creative ways when unique problems arise (Bitner et al., 1990; Carlson, 1987), helping others within the organization so that they are able to deliver high customer service (Gronroos, 1985), and offering creative suggestions for quality improvement (Bowen and Lawler, 1992). These activities correspond to Organ (1988) dimensions of conscientiousness, involving discretionary behavior that goes well beyond minimum role requirements; altruism, helping others with organizationally relevant tasks or problems; and civic virtue, indicating willingness to participate responsibly in the life of the organization. Studies have found a significantly positive relation between customer orientation and customer satisfaction (Homburg et..al., 2011; Ooi et..al., 2011) and have listed the suggested measures for evaluating the effect of customer orientation on customer satisfaction.

The findings of different researches demonstrate that organizations with customer–orientation compared with organizations without such orientation are more likely to satisfy their customers and meet their long terms aims (Brady and Cornin, 2001). Searching relevant literature shows that expressing customer-oriented behaviors would lead into profitable results for organization, customers and employees. The results are summarized in Table B.

Table B: *The results of expressing customer – oriented organizational citizenship behavior by employees*

For employees	For customers	For organizations
Developing long term relations with customers (Kelley, 1992)	Rising customer satisfaction (Dunlap et al, 1988)	Employees' performance improvement (Dimitriades, 2007)
Giving creative suggestions to improve the quality by employees (Bowen and Lawler, 1992)	Developing long term relations with organization (Kelley, 1992)	Satisfaction feeling (Dimitriades, 2007; Knox, 2007)
Service quality improvement (Hartline et al, 2000)	Improved service quality (Dimitriades, 2007)	Aiding each other in the organization to provide excellent services (Gronrros, 1985)
Higher profitability (Hartline et al, 2000)	Employees' aid to assess the needs ,to make satisfied decisions and to meet the needs (Hoffman and Ingram, 1992)	

A variety of OCB measures abound in the literature (Smith et al., 1983; Organ, 1988; Podsakoff et al., 1990; Van Dyne et al., 1994). OCB has been shown to contribute favorably to organizational outcomes, in particular service quality (Bettencourt and Brown, 1997; Kelley and Hoffman, 1997; Bell and Menguc, 2002) and overall business performance (Podsakoff and McKenzie, 1997). Moreover, three basic types of antecedents have been found to predict organizational citizenship: personal factors comprising personality characteristics and work-related attitudes, namely job satisfaction (McKenzie et al., 1988; Bettencourt et al.,2001), organizational commitment (Podsakoff et al., 1996; McKenzie et al., 1988) and job involvement (Hoffi-Hofstetter and Mannheim, 1999); situational factors, consisting of employee perceptions of workplace variables (Moorman, 1991; Netemeyer et al., 1997); and

positional factors, including job and/or organizational tenure and hierarchical level (Van Dyne et al., 1994). However, "what has not been studied as extensively is the applicability of OCB in other cultures" (Paine and Organ, 2000, p. 46). It is possible that the cultural context itself will encourage or dissuade OCB-type performance, thus attenuating the effect of established antecedents of OCB found in North American studies. Moreover, it is likewise conceivable that the meaning, perceptions and dimensions of OCB may not be similar to those typically used and/or found in the U.S. For example, culture might moderate the effects of antecedents that in the US have been interpreted as having direct effects on OCB (Paine and Organ, 2000, p. 46).

1.5 Related studies

Rehman (2012) aimed to investigate the relationship between customer satisfaction and service quality in Islamic banks of Pakistan, the United Kingdom and United Arab Emirates. The researcher used (CARTER model) that defines six dimensions of service quality, i.e. compliance, assurance, responsiveness, tangible, empathy, and reliability. The findings revealed that customers in Pakistan and UK Islamic banks consider assurance, reliability and empathy as significant factors for customer satisfaction, whereas in UAE customers consider assurance and tangibility as significant dimensions of satisfaction. Degirmenci et..al, (2012) aimed to evaluate customer satisfaction at Turkish Airlines. The factors affecting customer's experience were analyzed using weighted SERVQUAL methodology. In addition, the gap between Turkish Airline's current service quality and 5-star service quality defined by SKYTRAX (an accepted airline quality rating organization) was measured. In determining the factors affecting customer's experience, SKYTRAX customer satisfaction criteria were considered. Factor analysis grouped the questions included in the survey into six factors (dimensions): ground handling, employees, in-flight services, e-commerce, image and empathy. The results suggested that image dimension has the highest customer satisfaction level; employees and empathy dimensions followed the image. E-commerce has the lowest satisfaction level; in-flight services and ground handling service followed that. Another result is that meals and passenger transferring services have the highest impact on customer satisfaction. Malik (2012) aimed to find out the perceived service qualify using SERVQUAL and then the role of perceived value as a mediating variable in the service sector of Pakistan, Perceived value was found strongly correlated with satisfaction. Results suggested that perceived value is an important factor in customers' evaluation of satisfaction. Kucukarslan and Schommer **(**2002) tried to identify whether prior experiences, ideal referents, or market-based expectations (e.g. wait time, personality of pharmacist, pharmacist's skill, pharmacist's willingness to help) affect patients' satisfaction with pharmacy services. In the disconfirmation of expectations paradigm, patients use their expectations for a given service as the basis for judging that service in the present. How, their present experience compared with their expectations, yields a measure of satisfaction. The results show the viability of using these expectations to evaluate the quality of pharmacy services and explain patient satisfaction with experience at the pharmacy.

Kouvelas et al. (2002) investigated the service quality in community pharmacies of Northern Greece, by measuring patient care and health facility indicators, which were established by the World Health Organization in 1995. The results showed that there was room for developing the

service quality provided by the community pharmacies. The influence of service quality on customer satisfaction was not investigated. It did not refer to co-ocb, neither examined if service quality and co-ocb could influence the customers' satisfaction and commitment.

Lacey (2007) aimed to propose a relationship drivers model, for linking key motivations (economic, social and resource drivers), regarding why customers engage in marketing relationships, to their level of commitment to the firm. This framework is examined across three different customer relationship levels in two business-to consumer (B2C) settings. Donavan, Brown and Mowen **(**2004) aimed to investigate the role customer orientation may play in driving performance, overall job satisfaction, commitment, and OCB-altruism. Their results, obtained across three studies in two different services industries, reveal that CO positively influences job satisfaction, commitment, and the performance of OCB-altruism.

There have been limited studies, concerning the influence of service quality and customer-oriented organizational citizenship behavior in community pharmacies in Greece. Since Greek pharmacies play a major role in providing high-level health services among the population, it would be interesting to investigate how important the above qualities of the community pharmacies' are for their customers. This information could be useful in the future, in order to understand the specific needs of the community pharmacies' customers. It is not only the dispensed medication or another product, which are important to those who visit pharmacies. However, it is expected that, in many cases, people actually form a special relationship with their community pharmacists. This thesis attempts to show the reason for the above behavior and how it can be strengthened.

Moreover, the situation in Greece is a bit more complicated due to the lack of necessary legislation. For example, Greek community pharmacies perform many services, which are free of charge but are incorporated in the national health system as other professionals' duties. In addition, it is vital that we understand, how exactly, those who are customers and patients at the same time, view our services and our behavior towards them. This thesis attempts to investigate if there is a relationship between service quality and co-ocb with customers' satisfaction and commitment in community pharmacies in Greece.

So it investigates the below hypotheses:

H_1. It is expected that there is a positive relationship between service quality and customer satisfaction.

H_2. It is expected that there is a positive relationship between service quality and customer commitment.

H_3. It is expected that there is a positive relationship between customer-oriented organizational citizenship behavior and customer satisfaction.

H_4. It is expected that there is a positive relationship between customer-oriented organizational citizenship behavior and customer commitment.

Figure 5: Proposed Model I

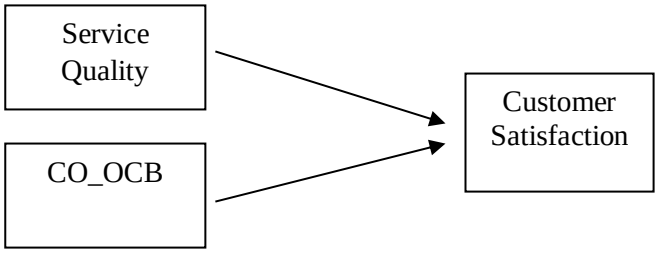
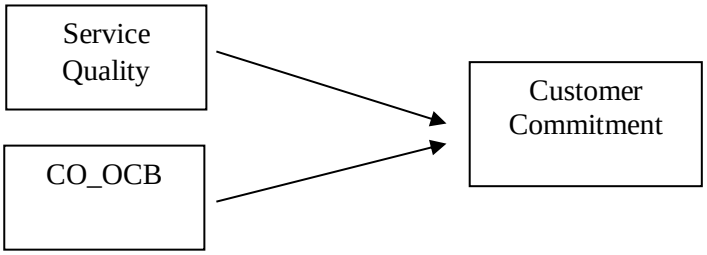


Figure 6: Proposed Model II



2. The role of the community pharmacies in delivering service quality combined with CO-OCB and thus enhance customer satisfaction and customer commitment

The role of pharmacists has been defined as promoting and supporting the safe, effective, and rational use of medicines. However, this role takes different forms in different parts of the world and even between practice sites within the same country. In community practice, the pharmacist's role is often dictated by the regulatory, economic, and organizational contexts in which he or she works; these conditions differ between countries. In more recent years, the pharmacist's role in many countries has shifted from the preparation and supply of medicines to assessing and managing patients' drug therapy needs.

The shift from a product focus to patient-centered care is consistent with the principles of pharmaceutical care as proposed by Hepler and Strand in the early 1990s. A central tenet of pharmaceutical care is that pharmacists accept responsibility for ensuring safe and appropriate drug therapy. Researchers have reported the importance of relationships between pharmacists and patients. McCullough et al. found that knowledge of the patient, increased trust between clinical pharmacists and their patients. Similarly, older patients' perceptions of a quality relationship with the pharmacist was associated with greater pharmacist participation in the relationship and feelings of being patient-centered.

Pharmacies play an important role in the delivery of healthcare services (Gebauer, 2008). Pharmaceutical drug expenditures account for approximately 10 percent of healthcare costs in the USA (Rizzo and Zeckhauser, 2009). In Canada, pharmaceutical drug expenditures in 2008 accounted for 17.4 percent of healthcare costs, or $29.8 billion (Canadian Institute for Health Information, 2009).

Many researchers have paid close attention to community pharmacies, and seen them as a special category within the retail industry. A prior study has even revealed that many pharmacists would perceive that consumers view them as being analogous to grocers (Kisa et al., 2007). In the broader retail industry context, researchers have documented, early on, the move from small independent retail stores to large superstores and hypermarkets (Whimster, 1981). Parker (1985) noted that small independent retail stores faced considerable problems due to the rapid growth of multiple supermarket companies. Empirical evidence has

demonstrated that small independent retail stores can thrive in a fiercely competitive environment as long as they find an effective way to differentiate themselves from large competitors (Kiker and Kiker, 2008). More recently, the retail pharmacy industry has undergone a similar trend of consolidation. Deregulation and competition from supermarkets, mass merchandisers, and other corporate chains have placed great pressure on independent community pharmacies (Schmidt and Pioch, 2005). It has been argued that independent community pharmacies must move away from inward-looking reactive and short-term approaches, and instead make use of opportunities of differentiation (Schmidt and Pioch, 2005).

Location alone cannot promise a captured audience, as consumers are willing to travel longer distances to support stores that are perceived as better (Hodgson and Jacobsen, 2009). Many community pharmacists have undertaken the dual roles of retail businessperson and healthcare professional (Resnik et al., 2000). Because of this, researchers believe these community pharmacists are better positioned to understand the intrinsic relationship between satisfying customer needs and maintaining business profitability (Schulz and Brushwood, 1991). Many pharmacists prefer to work with independent community pharmacies as a prior study has shown that pharmacists who primarily work in independent pharmacies have a more positive association with professionalism, work environment, and self-image than their counterparts in chain stores (Szeinbach et al., 1994). Eventually, many pharmacists want to have their own independent pharmacies (Kisa et al., 2007).Therefore, it appears that even though the rapid growth of corporate chain pharmacies have put considerable pressure on independent community pharmacies, there is still a raison d'etre for independent community pharmacies because they are special. Considering the vast resources that the corporate chains possess***, the independents must develop unique and effective competitive strategies to differentiate themselves in order to survive.***

People need high-quality health care, including that offered by community pharmacy. International publications, legislation and pharmacy policy are placing increasing importance on the design and development of high-quality services and care to achieve good outcomes. This obligation to be accountable and to ensure and develop quality of care has prompted the development of instruments to assess quality in community pharmacy.

Many approaches to assessing quality are used internationally. In Australia, for example, the Quality Care in Pharmacy Program has been designed to 'continually enhance the professional and business practices in community pharmacy to deliver optimal health outcomes'. This

quality-assurance program accredits pharmacies when they meet a substantial set of professional and business standards. Assessments are conducted by trained assessors for the Pharmacy Guild of Australia, a voluntary national organization for pharmacy owners in Australia.

In the UK, clinical governance accreditation schemes have been used by primary care organizations (PCOs) to ensure that pharmacies have systems in place to provide safe and high-quality services. Clinical governance, the philosophy that organizations in the NHS are encouraged to embrace, attempts to ensure that pharmacies: manage risk; involve patients and the public in decisions about their care; use appropriate information to support delivery of health care; perform clinical audits; use clinical effectiveness programs; manage staff effectively; and encourage education, training and the personal and professional development of pharmacists and non-pharmacist staff. Indicators relating to systems in the pharmacy have been developed by PCOs, which pharmacies must demonstrate compliance with, when visited and assessed by the PCO.

In the US, UK, Germany, Canada and in many other countries, other approaches have been developed and used by various bodies, including pharmacies and pharmacy head offices. For example, practice audits have been used as a developmental approach to improving practice, by measuring the pharmacy against standards set either by the pharmacy or by external organizations.

However, to ensure minimum standards of care are provided and then improve quality of care, it is necessary to know what to provide, how to provide it, and what to assess. Characterizing quality would provide this common frame of reference. Campbell et al defined quality for primary health care in the United Kingdom. Their synthesis of existing health care quality frameworks argued that quality dimensions such as access, effectiveness, acceptability, efficiency, equity, relevance, and legitimacy could be subsumed within 2 dimensions of accessibility and effectiveness. Accessibility for individuals described whether a health structure or process of care was available to the person needing it and at the time it was needed. Effectiveness comprised interpersonal care and clinical care to achieve intended outcomes.

The inclusion of Donabedian's seminal systems-based framework of structures, processes, and outcomes within the framework proposed by Campbell et al was important because moving from defining quality to assessing it requires understanding the components comprising each

quality dimension before they can be examined. Structures describe the setting in which care occurs. These include the physical characteristics of the setting, staff characteristics, and the organizational structures. Processes of care describe what is done when giving and receiving care. Outcomes explain the consequences of care on the patient or the population, which include health status and **patient satisfaction** with care. Once a preexisting relationship is established in which a structure or process has been linked to an outcome, then using these components to assess a quality dimension is suggested to improve the assessment's validity.

The Campbell et al.'s (2002) definition for primary health care and any of the definitions developed for quality health care in general or even that describing service quality may seem to apply to community pharmacy. However, it has been argued that any definition of quality must reflect the outputs specific to that organization, such as in the case of community pharmacy, the provision of medicines, advice, and health care services. The definition must be also developed from the perspectives of those closest to the point of care, namely its patients, providers, or health care managers. Using another service's definition is risky as assessments could inadvertently explore outputs unrelated to community pharmacy and fail to capture the outputs that are unique to community pharmacy. More importantly, a bottom-up approach to the definition is crucial for service providers to have a meaningful foundation for providing these outputs.

Despite the importance placed on community pharmacy quality worldwide, no formal definition has been developed. A systematic review of community pharmacy organizational assessments used internationally found that none were based on a framework specific to quality in this setting. They were derived from a variety of other industries, health policies, or legislation. The increased use of community pharmacies with the subsequent importance placed on understanding the quality of health care provided from these settings, and the lack of a common frame of reference, led this study to aim to develop a conceptual framework to characterize quality healthcare specifically for the community pharmacy setting (Halsall et al., 2012).

Table C: A framework summarizing the attributes of quality in the community pharmacy setting

Structures	Processes	Outcomes
• Premises, equipment, and technology • Information and data • Patient information, medicines, and services • Pharmacy team (skills and numbers) • Communication systems • Management, professionalism, and internal • quality systems • Financial resources	Providing standardized care Providing individualized care	Patient-specific outcomes Pharmacy-specific outcome Societal outcomes Health status

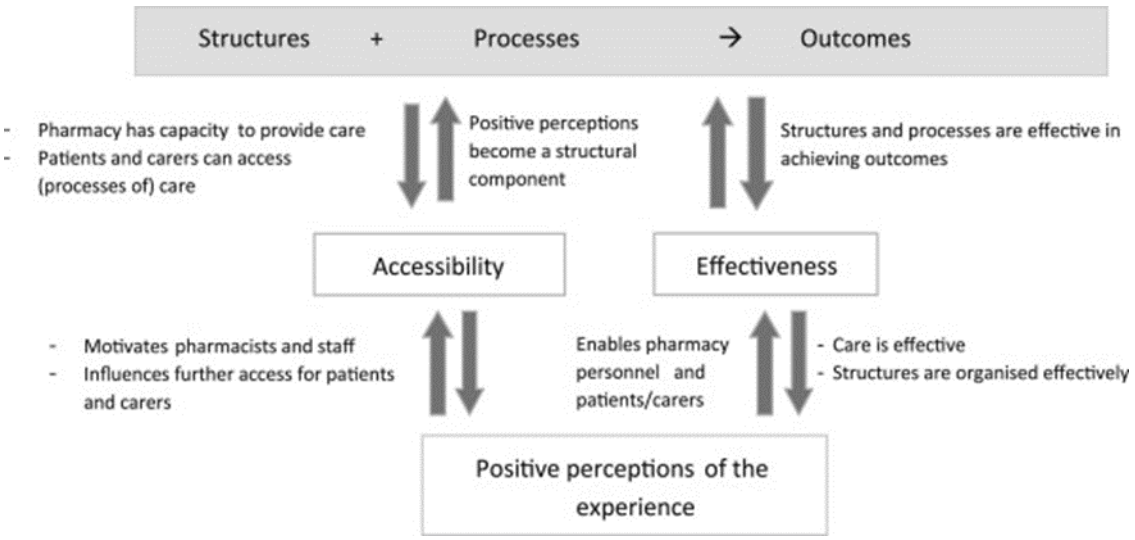


Figure 7. Halsall et al. / Research in Social and Administrative Pharmacy 8 (2012) 360–370

Moreover, patient satisfaction, a frequently reported humanistic outcome, serves as an important determinant of the viability and sustainability of health care services (Johnson et al.,1997). It can lead to more effective utilization of health care resources. There is evidence to show that satisfied patients are more likely to continue using health care services, value and maintain relationships with health care providers, adhere to treatment and have better health outcomes (Locker and Dunt, 1978; Pascoe, 1983; Aharony and Strasser, 1993; Schommer and Kucukarslan, (1997). Patient satisfaction is an important indicator of the quality of service delivered and is vital for continuous monitoring and quality improvement in health care delivery systems (Ford, Bach and Fottler,1997). Further, patient evaluations may help in identifying patient needs, perceptions, concerns and areas of service failure and may encourage health care

providers to be accountable for the quality of service delivered (Ford, Bach and Fottler, 1997). As community pharmacy-based services evolve in complexity and become an increasingly vital part of the health care system globally, identifying patient satisfaction with such pharmacy-based services becomes imperative for the purposes of their successful implementation, long-term viability, and quality management and for identifying areas for improvement.

3. Methodology

3.1 Sample description

The present self-administered survey was conducted during the first half of November 2018.The quantitative data was collected with the handing out of questionnaires to customers of five pharmacies located in one particular area, in the city of Thessaloniki, Greece. Customers were randomly asked to fill out a questionnaire and bring it back to the pharmacy. Out of four hundred and five hundred questionnaires (500), handed out, only two hundred and fifty (250) questionnaires were filled out and returned (50%).

The type of survey method chosen for this paper is the self-administered survey. This type of survey can be e-mailed, mailed, faxed or simply handed to the respondent. In the self-administered interview method, no interviewer is involved. Using a self -administered survey consists of identifying and locating potential study participants, deciding on the best way to get the questionnaire to those participants, and waiting for completed questionnaires to be returned. Substantively, the process is a series of distinct and often difficult decisions regarding the identification of study participants and the interview package (Aaker et al., 2013)

The main characteristics of the self-administered survey:

- The questionnaire is completed by the respondent
- The interviewer has no contact with the respondent.
- The environment plays no role in the data collection process.
- The least expensive form of data collection.

The advantages and disadvantages of the self-administered survey are as follows:

Advantages

Ease of presenting questions requiring visual aids.

Asking questions with long or complex response categories is facilitated.

Asking batteries of similar questions is possible.

The respondent does not have to share answers with an interviewer.

Relatively low cost.

Can be accomplished with minimal staff and facilities.

Provides access to widely dispersed samples and samples that for other reasons are difficult to reach by telephone or in person.

Respondents have time to give thoughtful answers, look up records, or consult with others.

Disadvantages

Especially careful questionnaire design is needed.

Open questions usually are not useful.

Good reading and writing skills are needed by respondents.

The interviewer is not present to exercise quality control with respect to answering all questions, meeting questions objectives, or the quality of answers provided.

Ineffective as a way of enlisting cooperation (depending on group to be studied).

Various disadvantages of not having interviewer involved in data collection.

Need for good mailing addresses for sample.

3.2 Research instrument

The collection of quantitative data was conducted with the help of a questionnaire, which was adjusted for the needs of the present survey. The final questionnaire consisted of 68 questions (items) and was divided into two sections. The first section named ‘‘Demographic Characteristics’’ included personal data (gender, age, education, monthly income, visit frequency to one’s community pharmacy). The second section named ‘‘Questions’’ included four scales, measuring: customer commitment, customer satisfaction, service quality and customer-oriented organizational citizenship behavior. The design of the questionnaire was based on multiple-item measurement scales that have been validated and found to be reliable in previous research. All items, in this section, were measured in seven-point Likert scales ranging from completely disagree to completely agree (1 – 7). Five questionnaires were distributed at first, in order to ensure that the respondents

Customer commitment

To measure customer commitment, we used the scale proposed by Fullerton (2005).The scale consists of 12 items and evaluates the three dimensions of customer commitment: affective, continuance (calculative) and normative commitment. In this survey, however, we only used the eight items that measure affective and continuance commitment.

Affective commitment arises when the committed person has feelings for, identifies himself or herself with and feels psychologically bound to the organization he or she has a relationship with (Bansal, Irving & Taylor, 2004, Fullerton, 2005, Gruen, Summers & Acito, 2000). This dimension is evaluated by four items, such as : <<I feel emotionally attached to pharmacy "X">>, <<Pharmacy "X" has a great deal of personal meaning for me>> and <<I have a strong sense of identification with pharmacy "X">>.

Calculative commitment is based on the committed person feeling more or less compelled to continue the relationship in question. In older behavioral-science literature, this component of commitment is usually called "***continuance commitment***", which means that the committed person will continue to be employed in the organization due to the costs (both economic and social) that arise in connection with the termination of employment. In many cases, the committed person therefore has no other choice than to continue, and consequently feels locked in (Meyer and Herscovitch, 2001; Sharma, Young and Wilkinson, 2006). The person who has a strong calculative commitment must, in other words, for business (economic and social) reasons try to preserve the relationship. This dimension is evaluated by four items , such as : <<It would be too costly to switch from pharmacy "X" right now >> and <<One of the major reasons I do not switch from pharmacy "X" right now is that leaving would require considerable personal sacrifice—another pharmacy may not match the overall benefits I have here>>.

Normative commitment refers to an obligation-based attachment to the organization (i.e., employees remain with the organization because they ought to---it is the "right thing to do"). However , in this survey it was not evaluated due to the fact that the questionnaire had already a lot of items and it would become time-consuming and complicated to the customers. One more issue was the hesitation that the specific dimension would not be easily distinguished from the affective one.

Customer satisfaction

To measure customer satisfaction, we used the scale proposed by Hennig-Thurau (2004). Customer satisfaction describes the consumer's fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over-fulfillment" (Oliver 2010). The scale consists of four items, which are : <<I am fully satisfied with pharmacy ''X''>>, <<Pharmacy ''X'' always fulfills my expectations>>, <<My experiences with pharmacy ''X'' are excellent>> and <<Pharmacy ''X'' has never disappointed me so far>>.

Customer-oriented organizational citizenship behavior

To measure customer – oriented organizational citizenship behavior we used the scale by Dimitriades (2007). Customer-oriented organizational citizenship behavior (CO-OCB) is a constellation of non-mandated and individual-initiated behaviors, which make great efforts to enhance customer satisfaction and service delivery (Dimitriades, 2007).The scale consists of seven items ,such as : "To serve customers, employees in this pharmacy volunteer for things that are not required" , "Employees of this pharmacy make innovative suggestions to improve customer service" , "The employees of this pharmacy expend considerable energy to come up with creative ways to assist customers facing problems" and "Employees of this pharmacy attend functions that are not required, but that help customer service".

Service quality

To measure service quality we used the scale proposed by Parasuraman et al. (1985) and Zeithaml et al. (1990). The scale consists of 22 items for expected and the same 22 items for perceived service quality, an overall of 44 items. The traditional SERVQUAL or ''gap analysis model'' was developed by Parasuraman, Zeithaml and Berry in the early 1980s, and is based on the view that customers assess service quality by comparing expectations of services provided with perceptions of the actual service received from a particular service provider. A set of five service quality dimensions (namely: tangibles, reliability, responsiveness, assurance, and empathy) across a broad spectrum of service industries is identified.

According to Parasuraman et al. (1985), customers' perceptions of service quality are influenced by five "gaps":

(1) Gap 1 represents the difference between customer expectations and management perceptions of customer expectations.

(2) Gap 2 is the difference between management perceptions of consumer expectations and the translation of these perceptions into service-quality specifications.

(3) Gap 3 is the difference between the service actually delivered by frontline service personnel on a day-to-day basis and the specifications set by management.

(4) Gap 4 represents the difference between service delivery and what is promised in external communications to consumers.

(5) Finally, Gap 5 is the difference between customer expectations and perceptions (that is, perceived service quality, as described above).

Gap 5 is influenced by Gaps 1-4, which are all within the control of an organization and therefore need to be analyzed to identify any changes that should implemented to reduce or eliminate Gap 5. Parasuraman et al. (1985) argued that such "gap analyses" are critical for identification of discrepancies between the provider's perceptions of service-quality dimensions and the consumers' perceptions of those dimensions. According to Engelland et al. (2000, p. 238), such gap analyses "[. . .] focus managers' attention on possible causes for each gap and on developing strategies to close each gap".

The SERVQUAL instrument is based on Gap 5. Parasuraman et al. (1985) concluded that consumers evaluated service quality by comparing expectations with perceptions on ten dimensions: tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding/knowing customers and access. These ten dimensions were subsequently collapsed into five generic service-quality dimensions, as follows:

(1) tangibles (measured by four items): the appearance of physical facilities, equipment, and personnel.
(2) reliability (five items): the ability to perform the promised service dependably and accurately
(3) responsiveness (four items): the willingness to help customers and provide prompt service

(4) assurance (four items): the knowledge and courtesy of employees and their ability to inspire trust and confidence and
(5) empathy (five items): the level of caring and individualized attention the firm provides to its customers.

These five dimensions are thus assessed by a total of 22 items. Each item is measured on the basis of responses to two statements that measure:

(1) the general expectations of customers concerning a service and

(2) the perceptions of customers regarding the levels of service actually provided by the company within that service category.

Such items are : <<Employees who have the knowledge to answer customer questions>>, <<Providing services at the promised time>>, <<Giving customers individual attention>> and <<Keeping customers informed about when services will be performed>>.

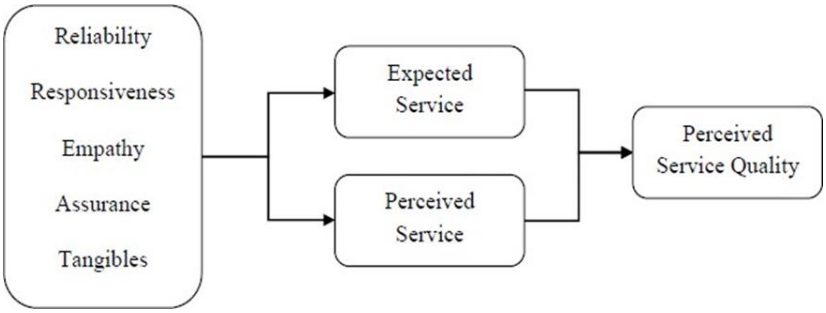


Figure 8. *SERVQUAL model (Parasuraman et al., 1988)*

4. Findings

4.1 Descriptive Statistics

Participants' demographic information (e.g., educational level, income and frequency of visit at pharmacy) is presented in Table 1. In brief, the total number of participants was 250, 116 (46.4 %) males and 134 females (53.6 %), while their age range was from 18 to 65 years and above. In terms of age groups, the highest proportion of the customers (37.2%) fell into the 35-49 years old group, followed by 50-64 years old (26.8%), and 19-34 years old (24.8%), respectively. In order to investigate the proposed hypotheses we used Exploratory Factor Analysis, Reliability Analysis, Correlational Analysis and Multiple Regression Analysis.

Table 1

Demographics Variables: Percentages and Frequencies

Variables	Frequencies	Percentages
Gender		
Male	116	46.4%
Female	134	53.6%
Age		
19-34 years old	62	24.8%
35-49 years old	93	37.2%
50-64 years old	67	26.8%
Above 65 years old	28	11.2%
Education		
High school	63	25.2%
Vocational training	31	12.4%
University degree	123	49.2%
Post university studies	27	10.8%
Other	6	2.4%
Income		
1-500 euros	51	20.4%
501-1000 euros	116	46.4%
1001-2000 euros	72	28.8%

Above 2001 euros	11	4.4%
Visit frequency		
1-3 times/month	140	56.0%
4-6 times/month	80	32.0%
7-9 times/month	22	8.8%
Over 10 times/month	8	3.2%

4.2 Exploratory Factor Analysis

An exploratory factor analysis (EFA) was performed examining the following factors: perceived and expected service quality, customer satisfaction, customer commitment, and CO-OCB.

A Principal Component Analysis (PCA) with a Varimax (orthogonal) rotation of 63 of the Likert scale questions from this survey questionnaire was conducted on data gathered from 250 participants. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.916, which is above the commonly recommended value of 0.65 (Table 2). The Bartlett's test of sphericity was significant [$\chi 2$ (1953) = 11115.261, $p < 0.05$). All communalities were above the recommended 0.3, specifically they ranged between 0.542 and 0.833 (Table 3). The initial eigenvalues showed that there are twelve factors with eigenvalues> 1 (Table 4). The results of the orthogonal rotation of the solution is shown in Table 5. Loadings less than 0.40 were excluded; the analysis yielded an eleven-factor solution with a simple structure (factor loadings =>0.40).

Eight items loaded onto Factor 1 and represent the initial customer commitment scale of the questionnaire. The next eleven items loaded onto Factor 2 and represent both expected and perceived service quality scales. Then we have another eight items, which loaded on Factor 3 and represent the initial customer satisfaction scale mixed with three items from perceived service quality scale and one from co-ocb scale. Factor 4 consists of three items from perceived service quality scale and Factor 5 consists of seven items from the expected service quality scale. Three items loaded onto Factor 6, two from expected service quality scale and one from perceived service quality scale. Five items loaded onto Factor 7, they consist of three items from expected service quality scale and two from perceived service quality scale. Six items, all

from perceived service quality scale, loaded onto Factor 8. Four items, all from co-ocb scale, loaded onto Factor 9. Finally, two items loaded onto each of Factor 10 and Factor 11 respectively, and were from expected and perceived service quality scale. Only one item loaded onto Factor 12, it is not included for further measurement. Three items, (CO_OCB1, CO_OCB6, and ESQ_Tangible2) do not load on any factor. (Table 5). Finally, the following items load onto two factors at the same time (Table 5): PSQ_Assurance3, PSQ_Reliability4, PSQ_Empathy4, ESQ_Responsiveness1, PSQ_Empathy3, C_SAT3, ESQ_Reliability1, ESQ_Reliability3, ESQ_Empathy3 and ESQ_Tangible4.

Table 2

The Kaiser-Meyer-Olkin and Bartlett's test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.916
Bartlett's Test of Sphericity	Approx. Chi-Square	11115.261
	df	1953
	Sig.	.000

Table 3

Communalities		
Items	**Initial**	**Extraction**
CO_OCB1	1.000	0.588
CO_OCB2	1.000	0.675
CO_OCB3	1.000	0.655
CO_OCB4	1.000	0.650
CO_OCB5	1.000	0.685
CO_OCB6	1.000	0.694
CO_OCB7	1.000	0.722
C_SAT1	1.000	0.617
C_SAT2	1.000	0.683
C_SAT3	1.000	0.635
C_SAT4	1.000	0.739
Customer Commitment_Affective 1	1.000	0.717
Customer Commitment_Affective 2	1.000	0.715
Customer Commitment_Affective 3	1.000	0.687
Customer Commitment_Affective 4	1.000	0.730
Customer Commitment_Continuance 1	1.000	0.616
Customer Commitment_Continuance 2	1.000	0.756

Customer Commitment_Continuance 3	1.000	0.808
Customer Commitment_Continuance 4	1.000	0.690
ESQ_Tangible 1	1.000	0.618
ESQ_Tangible 2	1.000	0.542
ESQ_Tangible 3	1.000	0.687
ESQ_Tangible 4	1.000	0.721
ESQ_Assurance 1	1.000	0.653
ESQ_Assurance 2	1.000	0.662
ESQ_Assurance 3	1.000	0.695
ESQ_Assurance 4	1.000	0.596
ESQ_Reliability 1	1.000	0.653
ESQ_Reliability 2	1.000	0.678
ESQ_Reliability 3	1.000	0.802
ESQ_Reliability 4	1.000	0.796
ESQ_Reliability 5	1.000	0.682
ESQ_Responsiveness 1	1.000	0.649
ESQ_Responsiveness 2	1.000	0.639
ESQ_Responsiveness 3	1.000	0.682
ESQ_Responsiveness 4	1.000	0.719
ESQ_Empathy 1	1.000	0.678
ESQ_Empathy 2	1.000	0.767
ESQ_Empathy 3	1.000	0.613
ESQ_Empathy 4	1.000	0.757
ESQ_Empathy 5	1.000	0.631
PSQ_Tangible 1	1.000	0.813
PSQ_Tangible 2	1.000	0.833
PSQ_Tangible 3	1.000	0.774
PSQ_Tangible 4	1.000	0.746
PSQ_Assurance 1	1.000	0.710
PSQ_Assurance 2	1.000	0.662
PSQ_Assurance 3	1.000	0.699
PSQ_Assurance 4	1.000	0.638
PSQ_Reliability 1	1.000	0.604
PSQ_Reliability 2	1.000	0.685
PSQ_Reliability 3	1.000	0.786
PSQ_Reliability 4	1.000	0.658
PSQ_Reliability 5	1.000	0.709
PSQ_Responsiveness 1	1.000	0.758
PSQ_Responsiveness 2	1.000	0.660
PSQ_Responsiveness 3	1.000	0.694
PSQ_Responsiveness 4	1.000	0.580
PSQ_Empathy 1	1.000	0.701

PSQ_Empathy 2	1.000	0.701
PSQ_Empathy 3	1.000	0.707
PSQ_Empathy 4	1.000	0.741
PSQ_Empathy 5	1.000	0.731
Extraction Method: Principal Component Analysis.		

Table 4

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	19.567	31.059	31.059	19.567	31.059	31.059	6.624	10.515	10.515
2	4.768	7.568	38.627	4.768	7.568	38.627	6.269	9.950	20.465
3	3.579	5.681	44.308	3.579	5.681	44.308	5.543	8.798	29.263
4	3.055	4.849	49.157	3.055	4.849	49.157	4.150	6.587	35.850
5	2.493	3.957	53.114	2.493	3.957	53.114	4.133	6.560	42.410
6	2.041	3.240	56.354	2.041	3.240	56.354	3.344	5.307	47.718
7	1.822	2.892	59.245	1.822	2.892	59.245	3.142	4.988	52.705
8	1.618	2.569	61.814	1.618	2.569	61.814	3.003	4.767	57.472
9	1.335	2.120	63.934	1.335	2.120	63.934	2.518	3.997	61.469
10	1.155	1.833	65.767	1.155	1.833	65.767	1.784	2.832	64.300
11	1.085	1.722	67.489	1.085	1.722	67.489	1.733	2.750	67.051
12	1.053	1.672	69.160	1.053	1.672	69.160	1.329	2.110	69.160

Table 5

Rotated Component Matrix

	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
Customer Commitment_Continuance 2	**0.836**	0.007	0.040	0.141	0.075	0.063	0.102	0.053	0.093	0.036	0.010	0.050
Customer Commitment_Continuance 3	**0.831**	0.126	0.167	0.096	0.002	0.149	0.073	0.014	0.151	0.092	0.056	0.057
Customer Commitment_Affective 4	**0.785**	0.100	0.143	0.201	0.069	0.054	0.090	0.034	0.090	-0.031	0.048	0.117
Customer Commitment_Affective 3	**0.754**	0.170	0.154	0.149	0.079	0.092	0.003	0.135	0.064	0.039	0.059	0.047
Customer Commitment_Affective 2	**0.718**	0.138	0.362	0.119	-0.069	0.086	-0.029	0.061	0.130	0.003	0.038	0.010

Customer Commitment_Affective 1	**0.690**	0.234	0.220	0.106	0.075	0.235	0.002	0.082	0.094	-0.067	0.122	-0.176
Customer Commitment_Continuance 1	**0.665**	0.108	0.100	-0.025	-0.046	-0.127	0.022	0.162	0.106	0.065	-0.045	-0.298
Customer Commitment_Continuance 4	**0.596**	0.041	0.210	-0.069	0.156	-0.355	0.051	0.188	-0.028	0.204	-0.024	0.231
CO_OCB6	0.378	-0.169	0.328	-0.143	0.120	0.115	0.341	0.212	0.329	0.084	-0.080	0.291
ESQ_Reliability 4	0.108	**0.828**	0.079	0.136	0.100	0.153	0.052	0.019	0.042	0.044	-0.040	-0.177
ESQ_Empathy 2	0.204	**0.754**	0.213	0.170	0.099	0.235	-0.102	-0.042	0.040	0.044	0.043	0.031
ESQ_Empathy 4	0.050	**0.688**	0.119	0.229	0.074	0.251	0.064	0.130	0.020	-0.005	0.123	0.330
ESQ_Assurance 3	0.190	**0.639**	0.170	0.347	0.207	-0.011	0.064	0.012	0.009	0.015	0.174	0.155
ESQ_Assurance 2	-0.011	**0.593**	0.200	-0.024	0.216	-0.150	0.297	-0.005	0.066	-0.239	0.167	-0.153
PSQ_Empathy 2	0.219	**0.513**	0.372	0.219	-0.009	0.203	-0.041	0.380	0.076	0.071	0.034	0.069
PSQ_Assurance 3	0.267	**0.507**	0.253	**0.429**	0.074	-0.043	0.158	0.154	0.010	0.166	0.168	0.102
PSQ_Reliability 4	0.292	**0.486**	**0.427**	0.126	0.012	0.163	0.041	0.242	-0.082	0.196	0.073	-0.008
PSQ_Empathy 4	0.176	**0.485**	**0.419**	0.288	-0.053	0.208	0.136	0.329	-0.009	0.025	0.082	0.190
ESQ_Responsiveness 1	0.153	**0.464**	0.188	0.141	0.398	0.044	0.023	-0.008	0.073	**0.433**	-0.014	0.040
PSQ_Empathy 3	0.278	**0.462**	0.135	0.025	-0.008	0.065	0.352	**0.453**	0.095	0.124	0.158	-0.123
C_SAT4	0.172	0.334	**0.702**	0.059	0.152	-0.122	0.043	0.069	0.121	-0.009	-0.005	0.205
PSQ_Reliability 2	0.114	0.108	**0.702**	0.205	0.244	-0.024	0.078	0.168	-0.080	0.088	0.041	-0.124
C_SAT2	0.370	0.098	**0.694**	0.037	0.082	0.001	0.087	-0.009	0.147	-0.033	0.099	0.084
C_SAT1	0.278	0.257	**0.639**	0.080	-0.020	0.094	0.015	0.085	0.160	0.060	0.035	-0.105
CO_OCB5	0.274	0.099	**0.527**	-0.212	-0.008	0.071	0.011	0.247	0.311	0.337	-0.001	0.028
PSQ_Reliability 1	0.088	0.142	**0.514**	0.382	0.200	-0.029	0.062	0.278	-0.157	0.110	0.077	-0.023
PSQ_Assurance 2	0.179	0.235	**0.512**	0.208	0.005	0.153	0.001	0.384	0.309	-0.053	0.024	-0.008
C_SAT3	0.315	0.105	**0.507**	0.041	-0.117	**0.459**	0.014	0.056	0.100	-0.076	0.144	-0.035
CO_OCB1	0.145	0.375	0.397	0.266	0.028	0.100	-0.058	0.121	0.272	-0.051	0.203	-0.226
PSQ_Tangible 1	0.174	0.219	0.137	**0.780**	0.141	0.200	0.069	0.030	0.174	0.064	0.078	-0.023
PSQ_Tangible 2	0.222	0.294	0.104	**0.770**	0.070	0.134	0.111	0.063	0.216	0.015	0.064	0.055
PSQ_Tangible 4	0.159	0.291	0.130	**0.724**	-0.014	0.172	0.123	0.169	0.072	0.076	0.101	-0.028
ESQ_Assurance 1	-0.018	-0.013	0.221	-0.077	**0.689**	0.167	0.191	0.120	0.020	-0.038	0.203	0.036
ESQ_Reliability 2	0.143	0.326	0.282	0.047	**0.671**	-0.027	0.048	-0.005	-0.126	0.026	0.014	0.012
ESQ_Empathy 5	0.042	-0.005	-0.172	0.238	**0.623**	0.032	0.008	0.140	-0.028	0.109	0.116	0.328
ESQ_Reliability 1	-0.011	**0.412**	0.162	0.131	**0.593**	-0.056	0.251	-0.004	0.007	0.078	-0.115	-0.052
ESQ_Tangible 3	-0.026	0.326	0.001	0.219	**0.565**	-0.055	-0.019	0.195	0.363	-0.158	-0.011	0.126
ESQ_Assurance 4	0.035	-0.089	-0.025	-0.134	**0.549**	0.342	0.044	0.115	0.264	0.161	0.094	-0.173
ESQ_Tangible 1	0.137	0.318	0.099	0.325	**0.404**	0.191	0.083	-0.155	0.075	0.226	0.306	0.040
ESQ_Responsiveness 4	0.023	0.228	-0.104	0.294	0.010	**0.703**	0.116	0.101	0.074	-0.060	-0.137	0.151
ESQ_Responsiveness 2	0.045	0.165	0.077	0.062	0.265	**0.699**	0.091	0.105	0.067	0.041	0.097	-0.079
PSQ_Responsiveness 4	0.165	0.148	0.197	0.268	-0.142	**0.469**	0.175	0.310	-0.005	0.194	0.116	0.055
ESQ_Tangible 2	0.233	0.150	-0.100	0.219	0.283	0.389	0.121	-0.113	0.037	0.342	0.035	0.169
ESQ_Reliability 5	-0.042	0.076	-0.065	0.043	0.185	0.238	**0.739**	0.072	0.021	0.133	0.023	0.087
PSQ_Reliability 5	0.291	0.038	0.177	0.265	-0.113	0.024	**0.663**	0.114	0.087	0.086	0.113	0.166
ESQ_Reliability 3	0.036	0.034	-0.016	-0.082	**0.582**	0.027	**0.648**	-0.014	0.069	-0.048	-0.041	-0.151
PSQ_Reliability 3	0.179	0.184	0.330	0.242	0.204	0.052	**0.605**	0.273	-0.035	-0.174	-0.069	-0.177
ESQ_Empathy 3	0.009	**0.424**	-0.019	0.132	0.284	0.042	**0.460**	0.052	0.229	0.116	0.223	0.049

PSQ_Assurance 1	0.127	-0.110	0.321	0.293	0.277	-0.014	0.157	**0.592**	0.197	0.007	0.009	-0.045
PSQ_Responsiveness 2	0.215	0.040	0.136	0.017	0.106	0.477	0.138	**0.546**	0.055	0.133	0.074	0.105
PSQ_Responsiveness 3	0.261	0.008	0.321	-0.096	0.064	0.305	0.295	**0.493**	-0.002	-0.050	0.278	0.084
PSQ_Empathy 1	0.324	0.255	0.255	0.208	0.107	0.029	0.035	**0.456**	0.192	0.222	0.336	-0.044
PSQ_Tangible 3	0.141	0.367	0.322	0.293	0.259	0.077	0.029	**0.444**	0.243	-0.261	-0.171	0.055
PSQ_Assurance 4	0.084	0.219	0.250	0.079	0.292	0.307	0.066	**0.428**	0.305	-0.055	-0.225	-0.023
CO_OCB7	0.309	0.063	0.032	0.201	0.212	0.094	0.100	0.157	**0.683**	-0.105	0.118	0.002
CO_OCB3	0.359	-0.132	0.198	0.085	-0.017	0.131	0.170	0.065	**0.573**	0.169	0.230	0.028
CO_OCB4	0.315	0.252	0.291	0.319	0.008	-0.045	0.043	0.106	**0.521**	0.065	-0.099	0.000
CO_OCB2	0.342	0.330	0.165	0.347	-0.087	0.289	-0.009	-0.062	**0.445**	0.067	-0.031	0.057
PSQ_Responsiveness 1	0.316	0.147	0.432	0.173	0.131	-0.079	0.114	0.218	-0.064	**0.552**	0.086	-0.139
ESQ_Tangible 4	-0.064	-0.065	-0.013	0.097	0.033	0.407	**0.425**	0.026	0.061	**0.514**	0.219	0.196
ESQ_Empathy 1	0.072	0.315	0.101	0.084	0.171	0.109	0.177	0.052	0.119	0.285	**0.618**	-0.060
PSQ_Empathy 5	0.153	0.183	0.163	0.423	0.179	0.022	0.002	0.133	0.056	-0.144	**0.612**	0.144
ESQ_Responsiveness 3	0.101	0.292	-0.001	0.056	0.318	0.343	0.311	0.021	0.138	0.077	0.078	**0.486**

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 18 iterations.

ESQ: expected service quality

PSQ: perceived service quality

CO_OCB: customer-oriented organizational citizenship behavior

C_SAT: customer satisfaction

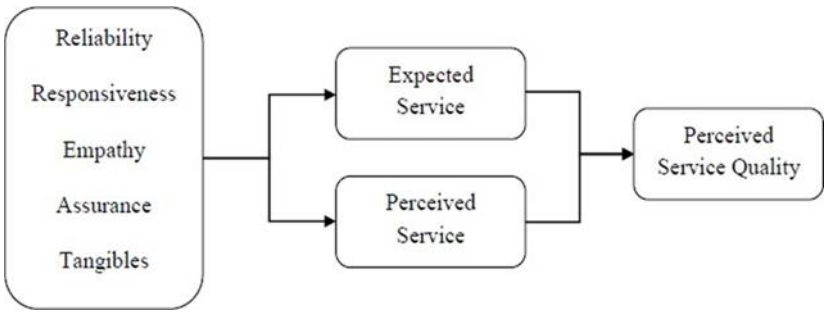


Figure 9. *SERVQUAL model (Parasuraman et al., 1988)*

According to Table 5 of exploratory factor analysis, all five dimensions, proposed by Parasuraman in the Servqual model, participate in the results. Specifically, in the final twelve factors that resulted from the analysis, we have:

Tangibles (PSQ_Tangible 1, PSQ_Tangible 2, PSQ_Tangible 3, PSQ_Tangible 4, ESQ_Tangible 1, ESQ_Tangible 3, ESQ_Tangible 4),

Assurance (ESQ_Assurance 1, ESQ_Assurance 2, ESQ_Assurance 3, ESQ_Assurance 4, PSQ_Assurance 1, PSQ_Assurance 2, PSQ_Assurance 3, PSQ_Assurance 4),

Empathy (ESQ_Empathy 1, ESQ_Empathy 2, ESQ_Empathy 3, ESQ_Empathy 4, ESQ_Empathy 5, PSQ_Empathy 1, PSQ_Empathy 2, PSQ_Empathy 3, PSQ_Empathy 4, PSQ_Empathy 5),

Responsiveness (ESQ_Responsiveness 1, ESQ_Responsiveness 2, ESQ_Responsiveness 3, ESQ_Responsiveness 4, PSQ_Responsiveness1, PSQ_Responsiveness 2, PSQ_Responsiveness 3, PSQ_Responsiveness 4).

Reliability (ESQ_Reliability 1, ESQ_Reliability 2, ESQ_Reliability 3, ESQ_Reliability 4, ESQ_Reliability 5, PSQ_Reliability 1, PSQ_Reliability 2, PSQ_Reliability 3, PSQ_Reliability 4, ,PSQ_Reliability 5).

Both aspects of the model are found in the results, that is expected and perceived service quality are represented by their items. However, instead of giving separate factors organized by dimensions with separately put expected and perceived items, we find them being mixed in the results. For example, factor 7 consists of ESQ_Reliability 5, PSQ_Reliability 5, ESQ_Reliability 3, PSQ_Reliability 3 and ESQ_Empathy 3 (see Table 5). ESC_Reliability 3 and PSQ_Reliability 3 represent exactly the same question in the questionnaire, but from two different aspects, that is of what people expect and of what they finally find in the service quality provided to them (Table 7). The same applies for ESC_Reliability 5 and PSC_Reliability 5. But, instead of giving separate factors they end up forming one factor. That happens probably, because the people that participated in the survey treated the two aspects as one. Specifically, they ended up judging the two questions by their perceptions only. That is why the perceived service quality prevails in the model proposed in Figure 9. The same can be found in the rest of the twelve factors that are shown in Table 5.

4.3 Reliability Analysis

In order to assess the five sub-scales' internal consistency of the main questionnaire used in the current study, respective Cronbach's alpha coefficients were calculated (see Table 6 below). The internal consistency of all sub-scales is in very satisfactory level as the Cronbach's alpha

coefficients are between 0.697 and 0.915, which means they are around 0.7, which is certainly in the region indicated by Kline (1999), and indicates good reliability. According to Hutcheson and Sofroniou (1999), marvelous: values in the 0.90s, meritorious: values in the 0.80s and middling: values in the 0.70s. However, the Cronbach's α cannot be larger than one. This suggests that each sub-scale's statements are correlated with each other as they are testing the dimensions of expected SQ, perceived SQ, CO-OCB, customer satisfaction and customer commitment.

Moreover, in a reliable scale all items should correlate with the total. For these data, all data have item-total correlations above 0.3, which is encouraging, see column Corrected Item-Total Correlation. The values in the column labelled Cronbach′s Alpha if Item Deleted are the values of the overall α if that item is not included in the calculation. As such, they reflect the change in Cronbach's α that would be seen if a particular item was deleted. If the deletion of an item increases Cronbach's α then this means that the deletion of that item improves reliability. Therefore, any items that have values of α in this column greater than the overall α seen at Cronbach's Alpha column for each scale may need to be deleted from the scale to improve its reliability. None of the items here would increase alpha significally, if they were deleted (Table 6).We do not include items ESQT4 and PSQRS1 (a= 0.376), ESQE1 and PSQE5 (a= 0.550) which have low reliability.

Table 6

Reliability Analysis

Item	***Cronbach's Alpha***	***Corrected Item-Total Correlation***	***Cronbach's Alpha if Item Deleted***
Customer commitment	**0.911**		
CC_Affective1		0.700	0.901
CCA2		0.754	0.897
CCA3		0.761	0.896
CCA4		0.776	0.894
CC_Continuance1		0.584	0.911
CCC2		0.780	0.894
CCC3		0.832	0.889
CCC4		0.537	0.916

Customer Satisfaction	**0.865**		
C_SAT1		0.702	0.840
C_SAT2		0.687	0.840
C_SAT3		0.534	0.861
C_SAT4		0.690	0.840
PSQ_Reliability 1		0.514	0.859
PSQ_Reliability 2		0.635	0.846
PSQ_Assurance 2		0.642	0.847
CO-OCB5		0.564	0.855
Customer-oriented organizational citizenship behavior	**0.782**		
CO_OCB2		0.556	0.744
CO_OCB3		0.578	0.734
CO_OCB4		0.561	0.742
CO_OCB7		0.657	0.691
Service Quality E/P			
SQ_Factor2	**0.916**		
ESQ_Assurance 2		0.490	0.916
ESQ_Assurance 3		0.726	0.906
ESQ_Reliability 4		0.716	0.906
ESQ_Empathy 2		0.755	0.904
ESQ_Empathy 4		0.732	0.905
ESQ_Responsiveness 1		0.558	0.913
PSQ_Reliability 4		0.685	0.908
PSQ_Empathy 2		0.698	0.907
PSQ_Empathy 3		0.591	0.912
PSQ_Empathy 4		0.720	0.906
PSQ_Assurance 3		0.730	0.905
SQ_Factor4	**0.913**		
PSQ_Tangible 1		0.845	0.858
PSQ_Tangible 2		0.865	0.841
PSQ_Tangible 4		0.771	0.919

SQ_Factor5	**0.783**		
ESQ_Assurance 1		0.556	0.750
ESQ_Assurance 4		0.403	0.774
ESQ_Reliability 1		0.559	0.745
ESQ_Reliability 2		0.587	0.743
ESQ_Tangible 1		0.506	0.766
ESQ_Tangible 3		0.546	0.748
ESQ_Empathy 5		0.503	0.759
SQ_Factor6	**0.697**		
ESQ_Resp/veness 2		0.538	0.608
ESQ_Resp/veness 4		0.583	0.549
PSQ_Resp/veness 4		0.488	0.639
SQ_Factor7	**0.782**		
ESQ_Reliability 3		0.564	0.741
ESQ_Reliability 5		0.604	0.725
ESQ_Empathy 3		0.519	0.754
PSQ_Reliability 3		0.590	0.731
PSQ_Reliability 5		0.524	0.756
SQ_Factor8	**0.818**		
PSQ_Tangible 3		0.619	0.782
PSQ_Assurance 1		0.605	0.785
PSQ_Assurance 4		0.607	0.790
PSQ_Resp/veness 2		0.551	0.797
PSQ_Resp/veness 3		0.575	0.791
PSQ_Empathy 1		0.573	0.792

Table 7

Scale items

Item	Questionnaire	Cronbach's Alpha
Customer commitment		**0.911**
CC_Affective1	I feel emotionally attached to pharmacy "X"	
CCA2	Pharmacy "X" has a great deal of personal meaning for me	

CCA3	I have a strong sense of identification with pharmacy "X"	
CCA4	I think that it would be very difficult for me to become as attached to another pharmacy as I am to pharmacy "X"	
CC_Continuance1	It would be very hard for me to switch away from pharmacy "X" right now, even if I wanted to	
CCC2	My life would be disrupted if I switched away from pharmacy "X"	
CCC3	It would be too costly to switch from pharmacy "X" right now.	
CCC4	One of the major reasons I do not switch from pharmacy "X" right now is that leaving would require considerable personal sacrifice—another pharmacy may not match the overall benefits I have here	
Customer Satisfaction		**0.865**
C_SAT1	I am fully satisfied with pharmacy ''X''	
C_SAT2	Pharmacy ''X'' always fulfills my expectations	
C_SAT3	My experiences with pharmacy ''X'' are excellent	
C_SAT4	Pharmacy ''X'' has never disappointed me so far	
PSQ_Reliability 1	Providing services at the promised time	
PSQ_Reliability 2	Providing services as promised	
PSQ_Assurance 2	Employees who instill confidence in customers	
CO-OCB5	The employees of this pharmacy expend considerable energy to come up with creative ways to assist customers facing problems	
Customer-oriented organizational citizenship behavior		**0.782**
CO_OCB2	The employees of this pharmacy exchange ideas with colleagues on how to improve customer service	
CO_OCB3	To serve customers, employees in this pharmacy volunteer for things that are not required	
CO_OCB4	Employees of this pharmacy make innovative suggestions to improve customer service	
CO_OCB7	Employees of this pharmacy attend functions that are not required, but that help customer service	
Service Quality E/P		
SQ_Factor2		**0.916**
ESQ_Reliability 4	Showing sincere interest in solving customer problems	

ESQ_Resp/veness 1	Keeping customers informed about when services will be performed	
ESQ_Empathy 2	Employees who deal with customers in a caring fashion	
ESQ_Empathy 4	Employees who understand the needs of their customers	
ESQ_Assurance 2	Employees who instill confidence in customers	
ESQ_Assurance 3	Making customers feel safe in their transactions	
PSQ_Reliability 4	Showing sincere interest in solving customer problems	
PSQ_Assurance 3	Making customers feel safe in their transactions	
PSQ_Empathy 2	Employees who deal with customers in a caring fashion	
PSQ_Empathy 3	Having the customers' best interest at heart	
PSQ_Empathy 4	Employees who understand the needs of their customers	
SQ_Factor4		**0.913**
PSQ_Tangible 1	Visually appealing facilities	
PSQ_Tangible 2	Visually appealing materials associated with the service	
PSQ_Tangible 4	Modern equipment	
SQ-Factor5		**0.783**
ESQ_Assurance 1	Employees who have the knowledge to answer customer questions	
ESQ_Assurance 4	Employees who are consistently courteous	
ESQ_Reliability 1	Providing services at the promised time	
ESQ_Reliability 2	Providing services as promised	
ESQ_Tangible 1	Visually appealing facilities	
ESQ_Tangible 3	Employees who have a neat and professional appearance	
ESQ_Empathy 5	Having business hours convenient for their customers	
SQ_Factor6		**0.697**
ESQ_Resp/veness 2	Willingness to help customers	
ESQ_Resp/veness 4	Providing prompt service to customers	
PSQ_Resp/veness 4	Providing prompt service to customers	
SQ_Factor7		**0.782**
ESQ_Reliability 3	Providing services right the first time	
ESQ_Reliability 5	Good product variety	

ESQ_Empathy 3	Having the customers' best interest at heart	
PSQ_Reliability 3	Providing services right the first time	
PSQ_Reliability 5	Good product variety	
SQ_Factor8		**0.818**
PSQ_Tangible 3	Employees who have a neat and professional appearance	
PSQ_Assurance 1	Employees who have the knowledge to answer customer questions	
PSQ_Assurance 4	Employees who are consistently courteous	
PSQ_Resp/veness 2	Willingness to help customers	
PSQ_Resp/veness 3	Readiness to respond to customers' requests	
PSQ_Empathy 1	Giving customers individual attention	

4.4 Multiple regression Analysis

Forced entry (or *Enter* as it is known in SPSS) is a method in which all predictors are forced into the model simultaneously. Some researchers believe that this method is the only appropriate method for theory testing (Studenmund and Cassidy, 1987) because stepwise techniques are influenced by random variation in the data and so seldom give replicable results if the model is retested.

The values of Pearson′s correlation coefficient between every pair of variables are shown in *Table 8* and *Table 9.*The one-tailed significance of each correlation is displayed (all correlations are significant, $p < 0.001$). One way of identifying multicollinearity is to scan the correlation matrix of the predictor variables and see if any correlate very highly. If there is no multicollinearity in the data then there should be no substantial correlations ($r > 0.9$) between predictors. Our data does not have high correlations.

In the column labelled R are the values of the multiple correlation coefficient between the predictors and the outcome (*Table 10* and *Table 11*). The next column gives us a value of R^2, (R square) which is a measure of how much of the variability in the outcome is accounted for by the predictors. For customer commitment, its value is 0.425, which means the predictors

account for 42.5% of the variation in customer commitment. For customer satisfaction, its value is 0.442, which means the predictors account for 44.2% of the variation in customer satisfaction.

The adjusted R^2 gives us some idea of how well our model generalizes and ideally, we would like its value to be the same as, or very close to, the value of R^2. In our case the difference for the final model is small (in fact the difference between the values is 0.425 − 0.420 = 0.005 or 0.5% for customer commitment and 0.442 – 0.438 = 0.004 or 0.4% for customer satisfaction). This shrinkage means that if the models were derived from the population rather than a sample it would account for approximately 0.5 % and 0.4 % respectively less variance in the outcome.

The assumption that errors are independent is likely to be met if the Durbin–Watson statistic is close to 2 (and between 1 and 3). The closer to 2 the value is, the better, and for this data the value is 1.642 and 1.689, which is so close to 2 that the assumption has almost certainly been met.

Table 8

Correlations for customer commitment

		CC_MEAN	**CO_OCB_MEAN**	**SQ_MEAN**
Pearson Correlation	CC_MEAN	1.000	0.631	0.511
	CO_OCB_MEAN	**0.631**	1.000	0.604
	SQ_MEAN	**0.511**	0.604	1.000
Sig. (1-tailed)	CC_MEAN	.	0.000	0.000
	CO_OCB_MEAN	0.000	.	0.000
	SQ_MEAN	0.000	0.000	.
N	CC_MEAN	250	250	250
	CO_OCB_MEAN	250	250	250
	SQ_MEAN	250	250	250

Table 9

Correlations for customer satisfaction

		C_SAT_MEAN	**CO_OCB_MEAN**	**SQ_MEAN**
Pearson Correlation	C_SAT_MEAN	1.000	0.589	0.601
	CO_OCB_MEAN	**0.589**	1.000	0.604
	SQ_MEAN	**0.601**	0.604	1.000
Sig. (1-tailed)	C_SAT_MEAN	.	0.000	0.000
	CO_OCB_MEAN	0.000	.	0.000
	SQ_MEAN	0.000	0.000	.
N	C_SAT_MEAN	250	250	250
	CO_OCB_MEAN	250	250	250
	SQ_MEAN	250	250	250

Table 10

Model summary for customer commitment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	**Durbin-Watson**
1	0.652	**0.425**	0.420	0.97344	0.425	91.221	2	247	0.000	**1.642**

Table 11

Model summary for customer satisfaction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	**Durbin-Watson**
1	0.665	**0.442**	0.438	0.64346	0.442	97.964	2	247	0.000	**1.689**

An ANOVA tests whether the model is significantly better at predicting the outcome than using the mean as a ‘best guess’. The ANOVA also tells us whether the model is a significant fit of

the data overall (values less than 0.05 in the column labelled Sig.). Specifically, the *F*-ratio represents the ratio of the improvement in prediction that results from fitting the model, relative to the inaccuracy that still exists in the model. The F-ratio is calculated by dividing the average improvement in prediction by the model (MSM) by the average difference between the model and the observed data (MSR). If the improvement due to fitting the regression model is much greater than the inaccuracy within the model then the value of F will be greater than 1, and SPSS calculates the exact probability of obtaining the value of F by chance. For customer commitment's model the F-ratio is 91.221, $p < 0.001$ and for customer satisfaction's model the F-ratio is 97.964, $p < 0.001$ (*Table 12* and *Table 13*).

Table 12

ANOVA for customer commitment

Model		Sum of Squares	df	Mean Square	F	Sig.
1	**Regression**	172.881	2	86.441	91.221	0.000
	Residual	234.055	247	0.948		
	Total	406.937	249			

Table 13

ANOVA for customer satisfaction

Model		Sum of Squares	df	Mean Square	F	Sig.
1	**Regression**	81.122	2	40.561	97.964	0.000
	Residual	102.267	247	0.414		
	Total	183.389	249			

Another way of identifying multicollinearity is to scan VIF and tolerance. The VIF indicates whether a predictor has a strong linear relationship with the other predictor(s). Related to the VIF is the **tolerance** statistic, which is its reciprocal (1/VIF).

If the largest VIF is greater than 10 then there is cause for concern (Bowerman and O'Connell,1990; Myers, 1990). If the average VIF is substantially greater than 1 then the regression may be biased (Bowerman and O'Connell, 1990). Tolerance below 0.1 indicates a serious problem. Tolerance below 0.2 indicates a potential problem (Menard, 1995). In our data, however VIF < 10 and tolerance is above 0.4 (*Table 14* and *Table 15*). The variance proportions vary between 0 and 1, and for each predictor should be distributed across different dimensions

(or eigenvalues). For this model, we can see that each predictor has most of its variance loading onto a different dimension (co_ocb_mean has 74% of variance on dimension 2, sq_mean has 99% of variance on dimension 3, *Table 16*).

Table 14
Coefficients for customer commitment

Model		Unsta. B	Std. Error	Standardized Beta	t.	Sig.	Tolerance	Vif
1	(Constant)	-1.929	0.600		-3.217	0.001		
	CO_OCB_MEAN	**0.734**	0.087	**0.508**	8.398	0.000	**0.636**	**1.573**
	SQ_MEAN	**0.431**	0.128	**0.259**	3.365	0.001	**0.636**	**1.573**

Table 15
Coefficients for customer satisfaction

Model		Unsta. B	Std. Error	Standardized Beta	t.	Sig.	Tolerance	Vif
1	(Constant)	0.593	0.396		1.496	0.136		
	CO_OCB_MEAN	**0.345**	0.058	**0.356**	5.976	0.000	0.636	1.573
	SQ_MEAN	**0.549**	0.085	**0.386**	6..484	0.000	0.636	1.573

Table 16
Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	CO_OCB_MEAN	SQ_MEAN
1	1	2.980	1.000	0.00	0.00	0.00
	2	0.016	13.820	0.24	0.74	0.01
	3	0.004	26.314	0.76	0.26	0.99

No more than 5% [(5*250)/100 = 12.5 cases] of standardized residuals should have **absolute** values above 3, whereas 95% of the cases must have standardized residuals within +/- 3. Any case with a value above about 4 could be an outlier. In our data, only six cases have standardized residuals above 3 (*Table 19 and Table 20*).

Cook's distance is a measure of the overall influence of a case on the model, and Cook and Weisberg (1982) have suggested that values greater than 1 may be cause for concern and might

be influencing the model. In our data, none of the cases has Cook's distance > 1 (*Table 17* and *Table 18*).

For Mahalanobis distance, a crude check is to look for values above 25 in large samples (500) and values above 15 in smaller samples (100). However, Barnett and Lewis (1978) should be consulted for more detailed analysis. For our data, there one case with Mahalanobis distance greater than 25 (*Table 21* and *Table 22*). However, its Cook's distance is below 1, so they do not cause us alarm.

Another measure of influence is **leverage** (sometimes called **hat values**), which shows the influence of the observed value of the outcome variable over the predicted values. The average leverage value is defined as $(k + 1)/n$, in which k is the number of predictors in the model and n is the number of participants. The maximum value for leverage is $(N - 1)/N$; however, SPSS calculates a version of the leverage that takes a maximum value of 1 (indicating that the case has complete influence over prediction). If no cases exert undue influence over the model then we would expect all of the leverage values to be close to the average value ($(k + 1)/n$). Hoaglin and Welsch (1978) recommend investigating cases with values greater than twice the average ($2(k + 1)/n$). Stevens (2002) recommends using three times the average ($3(k + 1)/n$) as a cut-off point for identifying cases having undue influence. For our data the average leverage would be: (2+1)/250 = 0.012. We would follow Stevens' (2002) instructions, so ($3(k + 1)/n$) = 3 * 0.012 = 0.036. One case has centered leverage value above 0.036 (*Table 21* and *Table 22*).

The absolute values of DFBeta should not be greater than 1.We can look also at the DFBeta statistics to see whether any case would have a large influence on the regression parameters. An absolute value greater than 1 is a problem and in all cases the values lie within ±1, which shows that these cases have no undue influence over the regression parameters. That is the case with our data (*Table 21* and *Table 22*).

A final measure is the **covariance ratio (CVR)**, which is a measure of whether a case influences the variance of the regression parameters. We should calculate the upper and lower limit of acceptable values for the covariance ratio, CVR. The upper limit is 1 plus three times the average leverage, while the lower limit is 1 minus three times the average leverage. Cases that have a CVR that falls outside these limits may be problematic.

Therefore, we are looking for any cases that deviate substantially from these boundaries. When this ratio is close to 1 the case has very little influence on the variances of the model parameters. Belsey, Kuh, and Welsch (1980) recommend the following:

If CVR*i* > 1 + [3(*k* + 1)/*n*] then deleting the *i*th case will damage the precision of some of the model′s parameters.

If CVR*i* < 1 − [3(*k* + 1)/*n*] then deleting the *i*th case will improve the precision of some of the model′s parameters.

In both equations, *k* is the number of predictors, CVR*i* is the covariance ratio for the *i*th participant, and *n* is the sample size. Our potential outlier has CVR value> 1 + [3(*k* + 1)/*n*] so deleting the *i*th case will damage the precision of some of the model's parameters. However, given the Cook′s distance for the case, there is probably little cause for alarm (*Table 21* and *Table 22*).

CVR*i* > 1 + [3(*k* + 1)/*n*] = 1 + [3(2 + 1)/250] = 1.036,

CVR*i* < 1 − [3(*k* + 1)/*n*] = 1 − [3(2 + 1)/250] = 0.964.

Table 17

Residuals Statistics for customer commitment					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	0.9344	6.1843	4.2845	0.83325	250
Std. Predicted Value	-4.021	2.280	0.000	1.000	250
Standard Error of Predicted Value	0.062	0.342	0.100	0.036	250
Adjusted Predicted Value	0.7671	6.1666	4.2840	0.83632	250
Residual	**-3.38091**	**2.25380**	0.00000	0.96953	250
Std. Residual	**-3.473**	**2.315**	0.000	0.996	250
Stud. Residual	**-3.491**	**2.329**	0.000	1.002	250
Deleted Residual	-3.41516	2.28017	0.00049	0.98196	250
Stud. Deleted Residual	-3.573	2.350	-0.001	1.007	250
Mahal. Distance	**0.018**	**29.689**	1.992	2.817	250
Cook's Distance	**0.000**	**0.080**	0.004	0.008	250

Centered Leverage Value	**0.000**	**0.119**	0.008	0.011	250

Table 18

Residuals Statistics for customer satisfaction					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.8253	6.7997	5.5380	0.57078	250
Std. Predicted Value	-4.753	2.210	0.000	1.000	250
Standard Error of Predicted Value	0.041	0.226	0.066	0.024	250
Adjusted Predicted Value	2.8710	6.7946	5.5380	0.56956	250
Residual	**-3.40146**	**1.99187**	0.00000	0.64087	250
Std. Residual	**-5.286**	**3.096**	0.000	0.996	250
Stud. Residual	**-5.310**	**3.119**	0.000	1.003	250
Deleted Residual	-3.43246	2.02151	0.00002	0.65034	250
Stud. Deleted Residual	-5.631	3.175	-0.002	1.016	250
Mahal. Distance	**0.018**	**29.689**	1/992	2.817	250
Cook's Distance	**0.000**	**0.288**	0.005	0.020	250
Centered Leverage Value	**0.000**	**0.119**	0.008	0.011	250

Table 19

Casewise Diagnostics for customer commitment				
Case Number	Std. Residual	CC_MEAN	Predicted Value	Residual
158	-3.473	1.13	4.5059	-3.38091

Table 20

Casewise Diagnostics for customer satisfaction				
Case Number	Std. Residual	C_SAT_MEAN	Predicted Value	Residual
42	-3.094	3.25	5.2408	-1.99077
71	-3.487	2.00	4.2440	-2.24404
73	-5.286	1.50	4.9015	-3.40146
88	-3.221	3.00	5.0726	-2.07260
137	3.096	6.75	4.7581	1.99187

Table 21

Case Summaries for customer commitment

		Case Number	Mahalanobis Distance	Cook's Distance	Centered Leverage Value
1		72	29.68879	0.07993	0.11923
Total	N		1	1	1

	Case Number	COVRATIO	Standardized DFFIT	Standardized DFBETA Intercept	Standardized DFBETA CO_OCB_MEAN	Standardized DFBETA SQ_MEAN
1	72	1.13076	-0.49040	-0.48828	-0.03371	-0.40398
Total N		1	1	1	1	1

Table 22

Case Summaries for customer satisfaction

		Case Number	Mahalanobis Distance	Cook's Distance	Centered Leverage Value
1		72	29.68879	0.01366	0.11923
Total	N		1	1	1

	Case Number	COVRATIO	Standardized DFFIT	Standardized DFBETA Intercept	Standardized DFBETA CO_OCB_MEAN	Standardized DFBETA SQ_MEAN
1	72	1.15044	-0.20211	-0.20123	-0.01389	0.16649
Total N		1	1	1	1	1

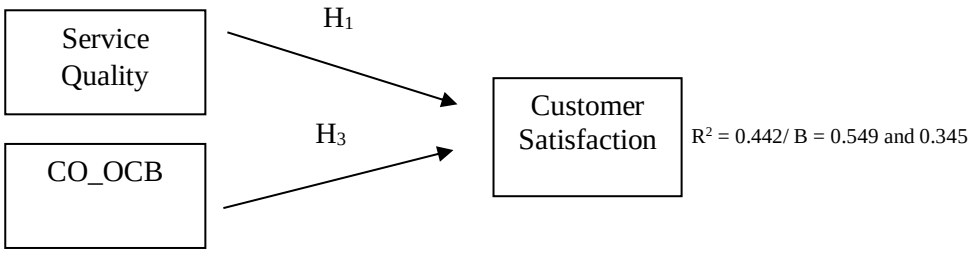


Figure 10: Proposed Model I

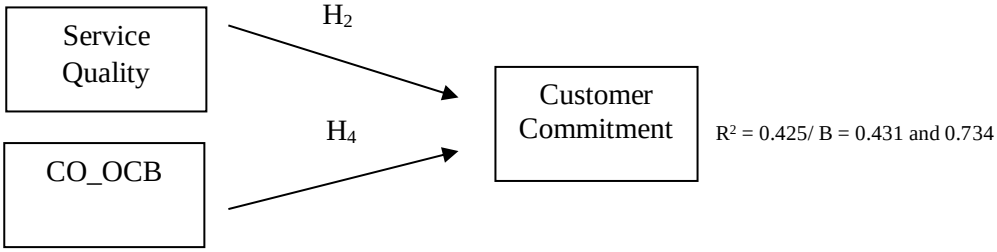


Figure 11: Proposed Model II

Table 23: *Results of Hypotheses control*

a/a	**Hypotheses**	**Control results**
H_1	It is expected that there is a positive relationship between service quality and customer satisfaction.	Confirmed
H_2	It is expected that there is a positive relationship between service quality and customer commitment.	Confirmed
H_3	It is expected that there is a positive relationship between customer-oriented organizational citizenship behavior and customer satisfaction.	Confirmed
H_4	It is expected that there is a positive relationship between customer-oriented organizational citizenship behavior and customer commitment.	Confirmed

4.5 Discussion of Findings

The main objective of this thesis was to investigate how longitudinal relationships are built in the pharmaceutical sector between clients and professionals. To achieve this goal, we investigated the relationship between service quality and customer oriented-organizational citizenship behavior with customer satisfaction and customer commitment in community pharmacies, with the help of a sample of questionnaires, which were distributed to the customers of five community pharmacies. The hypotheses of the survey were supported by the statistical analysis' results. Collectively, the results both support and build on the extant literature. Our findings indicate that both service quality and customer – oriented organizational citizenship commitment lead to customer commitment and customer satisfaction.

The **service quality – customer satisfaction** relationship is significant, according to the results of the statistical analysis (Hypothesis 1). Service quality and customer satisfaction relationship receives considerable support and empirical validation from previous studies (Rehman, 2012; Kucukarslan and Schommer, 2002; Degirmensi et al., 2012; Malic, 2012). It is important to remember that customer satisfaction research is mainly influenced by the disconfirmation paradigm (Parasuraman et al., 1988). This paradigm states that the customer's feeling of satisfaction is a result of a comparison process between perceived performance and one or more comparison standard, such as expectations. The customer is satisfied when he/she feels that the product's performance is equal to what was expected (confirming). If the product's performance exceeds expectations, the customer is very satisfied (positively disconfirming), if it remains below expectations, the customer will be dissatisfied (negatively disconfirming). However, we are investigating the service sector, which has important differences from material products. Nevertheless, even in the service sector most customer satisfaction research is based on the expectancy-disconfirmation model of satisfaction (Oliver 1980) where confirmation or disconfirmation of consumers' expectations is the key determinant of satisfaction (Oliver, 1980; Wirtz and Mattila, 2001). According to the expectancy disconfirmation paradigm, consumers evaluate the service performance they have experienced and compare it to their prior expectations. Additionally, the attribute-based approach argues that both cognitive (expectations) and affective (desires-motives associated with personal objectives) elements should be considered when examining the consumer satisfaction formation process (Bassi and

Guido, 2006; Oliver, 2000, p. 250). Recent empirical evidence supports the significance of service attributes in influencing overall satisfaction (Mittal et al., 1999; Akhter, 2010).Finally**,** the integrative model of service satisfaction proposes that in addition to attribute satisfaction , transaction quality and service values are further antecedents of overall satisfaction with services (Tsiotsou and Wirtz, 2012). Akhter's (2010) recent study also supports the view that a service encounter is a multi-attribute experience comprising satisfaction with service attributes such as the provider, the offering, the location, information, and facilitation, which together form overall satisfaction. **Overall satisfaction** reflects the level of satisfaction with the **overall service experience**, and is a global evaluation of a specific service consumption experience. In our thesis, customer satisfaction items load on one factor in the EFA analysis (*Table 5,Factor 3*) ,have high reliability (*Table 6*) and show important correlation with overall service quality in the multiple regression analysis (*Table 9*). What is not clear from the survey is which service quality dimension has stronger impact on overall customer satisfaction. The current survey shows that service quality items load onto six factors in exploratory factor analysis (Table 5) and demonstrate significant reliability (Table 6). We use the SERVQUAL model, where all five-dimensions of service quality have specific items for each dimension, mentioned above. We notice that each of the six factors, which represent service quality, consists of mixed items from both perceived and expected scale or has less items that would normally describe one specific service quality dimension (Table7). It is possible that, if we had used the SERVPERF model proposed by Cronin, it would be less confusing for the clients, since they would not have to remember all the time which part they evaluate at a specific moment, their expectations or their perceptions.

The **service quality – customer commitment** relationship is significant, according to the results of the empirical study (Hypothesis 2). That is supported by previous research (Lacey, 2007). We also know that improving service quality increases the likelihood of customer satisfaction, which leads to behavioral outcomes such as commitment, desire to stay, bidirectional link between the service provider and the customer, increasing positive advertisement and customer's tolerance toward deficiency in service delivery (Arasli, Katircioglu and Samadi, 2005). The three-component model (Meyer and Allen, 1997; Meyer and Herscovitch, 2001) to a consumer setting refers to **commitment** as a ***force that binds an individual to continue to purchase services (i.e., not switch) from a service provider.*** This force refers to different underlying psychological states that reflect the nature of the individual's relationship with the target of interest and that have implications for the decision to continue that relationship (Meyer and Allen, 1997). These psychological states can be categorized as

three distinguishable components*: affective* (binding the consumer to the service provider out of desire), *normative* (binding the consumer to the service provider out of perceived obligation) and *continuance* (binding the consumer to the service provider out of need) in nature.

In our thesis, customer commitment items load on one factor in the EFA analysis (*Table 5,Factor 1*) , have high reliability (*Table 6*) and show important correlation with overall service quality in the multiple regression analysis (*Table 8*). It is important to state, however, that the dimensions of customer commitment were not fully comprehend by the customers .That is why affective and continuance commitment items (*Table 7*) were perceived as having to do with commitment but without separating the one dimension from the other (*Table 5*). However, that is partly normal because the three components should be regarded as components and not as different types of commitment (Anderson and Weitz, 1992; Martin, 2008; Rylander, Strutton and Pelton, 1997). The same person has elements of all the components at the same time of commitment. As mentioned and explained in chapter 3 page 49, the normative dimension of commitment was not included in the questionnaire.

The mentioned Donavan, Brown and Mowen (2004) research refers to customer-orientation in service workers and how it leads to satisfaction and commitment. Instead, in this thesis, we examine **customer-oriented organizational citizenship behavior** and find that it has positive relationship with both, **customer satisfaction** and **customer commitment**. (Hypothesis 3 and Hypothesis 4). The findings of different researches demonstrate that organizations with customer–orientation compared with organizations without such orientation are more likely to satisfy their customers and meet their long terms aims (Brady and Cronin, 2001). Specifically, three categories of behavior capture the OCB construct as conceptualized by Graham (1991): organizational obedience, organizational loyalty and organizational participation.

In our thesis, four out of seven customer – oriented organizational citizenship behavior items load on one factor (*Table 5, Factor 9*), have high reliability (*Table 6*) and both customer commitment and customer satisfaction show important correlation with customer-oriented organizational citizenship behavior (*Table 8 and Table 9*). It was not possible to find in the Greek pharmaceutical sector any previous research that would connect **customer-oriented organizational citizenship behavior** with **customer satisfaction** and **customer commitment.** Therefore, our findings will be helpful in understanding how important it is to express initiative and altruism in gaining the customers' feelings of satisfaction and commitment not only with the quality of the service provided, but with the provider himself as a person. The evolution of

the relationships in the service sector indicates that it is not enough just to provide the service on time or have modern facilities. It is just as important to develop customer-oriented organizational citizenship behavior and to show professional qualities that are not required by the law but are necessary if we want a longitudinal relationship with our customers. That is why both, service quality and customer-oriented organizational citizenship behavior, seem to play a major role and lead to customer satisfaction and customer commitment.

5. Conclusion, limitations and suggestions for future research

The main goal of this thesis is to contribute to the existed bibliography and research, in regard of the relationship between service quality and customer-oriented organizational citizenship behavior with customer satisfaction and customer commitment. The relationship between service quality and customer-oriented organizational citizenship behavior with customer satisfaction and customer commitment is both **existing** and **positive**. Moreover, it attempts to provide additional information and help to the professionals in the community pharmacies, who play a major role in the primary health care system. Thus, using the provided information they will be able to build longitudinal relationships with their clients.

There have been limited studies, concerning the influence of service quality and customer-oriented organizational citizenship behavior in community pharmacies in Greece. Since Greek pharmacies play a major role in providing high-level health services among the population, it would be interesting to investigate how important the above qualities of the community pharmacies' are for their customers. This information could be useful in the future, in order to understand the specific needs of the community pharmacies' customers. It is not only the dispensed medication or another product, which are important to those who visit pharmacies. It is expected that, in many cases, people actually form a special relationship with their community pharmacists. This thesis attempts to show the reason for the above behavior and how it can be strengthened.

Specifically, professionals in the pharmaceutical sector, will have more satisfied and committed clients if they demonstrate altruism by helping other members of the organization in their tasks (e.g. voluntarily helping less skilled or new employees, and assisting co-workers who are overloaded or absent and sharing sales strategies); courtesy by preventing problems deriving from the work relationship (e.g. encouraging other co-workers when they are discouraged about their professional development); sportsmanship by accepting less than ideal circumstances (e.g. petty grievances, real or imagined slights); civic virtue by responsibly participating in the life of the firm (e.g. attending meetings/functions that are not required but that help the firm, keeping up with changes in the organization, taking the initiative to recommend how procedures

can be improved); and conscientiousness by showing dedication to the job and desire to exceed formal requirements in aspects such as punctuality or conservation of resources (e.g. working long days, voluntarily doing things besides duties, keeping the organization's rules and never wasting work time). Build strategies to facilitate and accelerate the delivery of relational benefits. For instance, it would be recommendable to contract employees who like interacting with customers and desire to establish relationships with them (Beatty et al., 1996). The development of interpersonal bonds may be fostered by an adequate design of the environment in which the service is delivered, so that there is an opportunity to establish (formal and informal) customers–employees interactions (Gremler et al., 2001). For instance, a space for children playing should be provided, so that their parents would spend more time inside the provider's facilities. To enhance service quality, it would be wise to adopt technologies to allow employees to have more time to interact with customers. The use of software may help employees to remember customers' characteristics and use that information to build a relationship.

To conclude, it is important to point out two significant contributions that this survey offers. First, it shows that the positive relationship that was already found and applied to other professional fields, between service quality, customer satisfaction and customer commitment, can apply in the pharmaceutical sector. What is more, we can investigate the above relationships with the same tools that are already offered by the researchers. In addition, they suggest that overall service quality is also an important determinant of customer satisfaction and customer commitment. Second, since customer-oriented organizational citizenship behavior was not investigated before in the Greek pharmaceutical sector, this thesis attempts to shed light on the positive contribution and impact that behavior has on customer satisfaction and customer commitment. For theory, these results add further evidence that service quality and customer-oriented organizational citizenship behavior is an important decision-making criterion for service consumers. Reiterating our initial set of questions, is it necessary to measure both of these variables? The answer is yes as the effect of these variables on behavioral intentions, such as satisfaction and commitment, is both comprehensive and complex. Our results suggest that the answer is yes; the influence of overall service quality and customer – oriented organizational citizenship behavior on behavioral intentions is considerably significant and present.

Nevertheless, it is not possible to conduct a survey without some sort of limitations and that is why the present results cannot be generalized across the whole sector of pharmaceutical care. The survey was conducted in one particular area in the city of Thessaloniki, Greece. Therefore,

it is wise to conclude that a different demographic environment, such as the rural area around the city, might show different results. One other major limitation is the number of community pharmacies, which participated in the case study and were only five in number. We cannot generalize these findings to all Greek community pharmacies. At the same time, the situation in the pharmacies located within hospitals and clinics should be studied separately, as well. One other aspect of the limitation in the particular survey, is that the sample questioned, consisted only of the customers of the above community pharmacies. The amount of the valid questionnaires was limited to 250. It is important to find out if there is a similar approach to the particular subjects, from people who were not familiar with those pharmacies before and maybe a bigger sample might show us more details in future studies. As was mentioned in the theoretical section, there are some controversies over the definitions of customer satisfaction, customer-oriented organizational citizenship behavior, customer commitment and sometimes even service quality. Although established measures from other studies were adopted and verified, other measurement versions may yield different results.

Finally, some suggestions for future research: 1) customer-oriented organizational citizenship behavior and its impact on different commitment dimensions and 2) the design of specific measurement scales for investigating variables in pharmaceutical care. If future pharmaceutical care intends to play a significant role in the primary health system, the knowledge of the relationships between the professionals and the receivers (patients-customers) will become valuable. That becomes more obvious if we notice that in many European countries, as mentioned in chapter 2, an important variety of health services, is shifted from hospitals to community pharmacies.

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Appendices

Measurement scales

I. Customer commitment : Fullerton (2005)

Continuance customer commitment

1. It would be very hard for me to switch away from pharmacy "X" right now, even if I wanted to.
2. My life would be disrupted if I switched away from pharmacy "X".
3. It would be too costly to switch from pharmacy "X" right now.
4. One of the major reasons I do not switch from pharmacy "X" right now is that leaving would require considerable personal sacrifice—another pharmacy may not match the overall benefits I have here.

Affective customer commitment

1. I feel emotionally attached to pharmacy "X".
2. Pharmacy "X" has a great deal of personal meaning for me.
3. I have a strong sense of identification with pharmacy "X".
4. I think that it would be very difficult for me to become as attached to another pharmacy as I am to pharmacy "X".

II. Customer satisfaction: Hennig-Thurau (2004)

1. I am fully satisfied with pharmacy ''X''.
2. Pharmacy ''X'' always fulfills my expectations.
3. My experiences with pharmacy ''X'' are excellent.
4. Pharmacy ''X'' has never disappointed me so far.

III. Customer-oriented organizational citizenship behavior: Dimitriades (2007)

1. "The employees of this pharmacy are assisting co-workers to deliver high-quality customer oriented services".

2. “The employees of this pharmacy exchange ideas with colleagues on how to improve customer service”.
3. “To serve customers, employees in this pharmacy volunteer for things that are not required”.
4. “Employees of this pharmacy make innovative suggestions to improve customer service”.
5. “The employees of this pharmacy expend considerable energy to come up with creative ways to assist customers facing problems”.
6. “Employees of this pharmacy deal restlessly with customer problems until they are resolved”.
7. “Employees of this pharmacy attend functions that are not required, but that help customer service”.

IV. Original SERVQUAL: (Parasuraman et al., 1985)

Assurance ***Knowledge and courtesy of employees and their ability to convey trust and confidence***

1. Employees who have the knowledge to answer customer questions
2. Employees who instill confidence in customers
3. Making customers feel safe in their transactions
4. Employees who are consistently courteous

Reliability ***Ability to perform the promised service dependably and accurately***

1. Providing services at the promised time
2. Providing services as promised
3. Providing services right the first time
4. Showing sincere interest in solving customer problems
5. Keeping records / Good product variety

Empathy ***Caring and individualized attention the firm provides its customers***

1. Giving customers individual attention
2. Employees who deal with customers in a caring fashion
3. Having the customers’ best interest at heart
4. Employees who understand the needs of their customers.
5. Having business hours convenient for their customers

Responsiveness ***Willingness to help customers and provide prompt service***

1. Keeping customers informed about when services will be performed

2. Willingness to help customers
3. Readiness to respond to customers' requests
4. Providing prompt service to customers

Tangibles ***Appearance of physical facilities, equipment, personnel and communication material***

1. Visually appealing facilities
2. Visually appealing materials associated with the service
3. Employees who have a neat and professional appearance
4. Modern equipment