

CUSTOMER SATISFACTION OF GREEK MOBILE PHONE SERVICES

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ABSTRACT

The mobile telephony market is one of the fastest-growing segments in the global economy. The competition in this sector has become very intense and the companies' need for survival, in these very difficult conditions that dominate in this sector, force them to search for ways to attract and retain customers. The main condition for the maintenance of their brand life, in the long term, is to win customers' loyalty. Customer satisfaction consists a basic factor for achieving this aim.

The objectives of this research, is to capture the present situation with regard to the satisfaction of Greek users of mobile phone services. The research model that has been developed incorporates many factors that influence customers' satisfaction. Structured questionnaires from mobile phone services users are collected to test the research model. The results indicate that company image is the main factor affecting not only customer satisfaction, but also perceived value, service quality and customer loyalty.

KEYWORDS

Customer Satisfaction, Mobile Phone Services, Customer Loyalty, Company Image

1. INTRODUCTION

The enormous competition in the area of mobile telephony services (MTS) has forced companies that are active in this field to find ways to cope with the great demands of the market and to increase their market share (Rust & Zahorik, 1993). For these enterprises, the increase in customer satisfaction is a fundamental goal, while their utter purpose is to enforce the customer loyalty to the company and to maintain long-term customer relationships (Kotler, 1982).

The purpose of the present survey is (a) the understanding of the importance of consumer satisfaction and its effect on the efficiency of a company, (b) the creation of an improved model for measuring consumers' satisfaction of MTS companies in the Greek market, and (c) to draw some useful conclusions for the most important factors and the way they affect the level of satisfaction of the consumers of the MTS providers in Greece.

1.1. Development of mobile telephony in Greece

Mobile telephony networks started their operations worldwide during the 1980s. They reach their peak in the early 90s with the introduction of the digital cellular systems. In Europe, the introduction of the pan – European digital system (GSM) had a vast contribution to the impressive spread of the mobile telephony.

The penetration of mobile telephony in Greece in the end of 2004 was estimated to 101% of the Greek population (Grigoroudis & Siskos, 2004). Mobile telephony appears to have faster growth rates than the conventional telephony market, which results in the increase of the mobile telephony revenues.

With the liberalisation of the market, the entrance of several companies providing telephony services, both conventional and cellular, an intense competition, focusing on prices, has emerged this fact, along with the rapid advancement that the communication technologies has brought, contributed to the constant reduction of the prices of telephony services (Athanassopoulos, 2000).

The main target of all the companies in the telecommunication industry in Greece was the dominance over the mobile telephony market, with first place changing hands many times. Today, while Cosmote is first, as far as the number of contract subscribers is concerned, Vodafone is first considering the number of prepaid telephone subscribers (Grigoroudis & Siskos, 2004).

2. LITERATURE REVIEW

Companies' need for survival forces them to find ways to preserve and to augment the market share they possess. It is essential for a company to keep its customers satisfied, because it is far more expensive for a company to attract new customers than to maintain the ones it already has (Kotler, 1982). Previous studies have proven the importance of consumer satisfaction and its effects on both the maintenance of customers and the efficiency of a company (Rust & Zahorik, 1993). The first step for managing customer satisfaction is the understanding of what the customers really want.

Customer satisfaction has been the center of the research for some time in the area of consumer's psychology. Yi (1991) summarised some of literature's definitions in customer satisfaction. Consumer satisfaction has been defined as "the evaluation that the consumer experience is at least as good as it is supposed to be" (Hunt, 1977: 4591), or as "an evaluation where the chosen alternative choice is in agreement with the prior beliefs and always keeping in mind this alternative " (Engel & Blackwell, 1982: 5011), and also as "the response of the consumer to the evaluation of the perceived differences between the prior beliefs (or a performance pattern) and the actual performance of the product, the way it is perceived after its consumption" (Tse & Wilton, 1988: 2041). A recent and more concise definition is given by Oliver (1997), who defines satisfaction as the "response to consumer fulfilment".

Customer satisfaction is also defined as a result that comes from the pre - purchasing customer comparison among the expected performance, the perceived actual performance and the existing cost (Churchill & Surprenant, 1982). Literature supports that customer satisfaction acts in two different ways: the satisfaction of a certain transaction and the overall satisfaction (Yi, 1991).

Generally, the level of satisfaction indicates to what extent customers are satisfied and to what degree their expectations have been confirmed. In this research, this factor evaluates the level of the total customer satisfaction, the fulfilment of their expectations and the efficiency of the company in comparison with the ideal (Turkyilmaz & Ozkan, 2007).

2.1. Factors that affect customer satisfaction

Many and different models of customer satisfaction have been proposed since the beginning of 1970, mainly due to the difference in interpretation of the word satisfaction by a number of researchers. Erevallés & Leavit (1992) conducted a review and gathered the characteristics from most of the customer satisfaction models that had been developed in the 1980s.

Company image is defined as the total impression that the public has for a company (Barich & Kotler, 1991; Dichter, 1985; Finn, 1961; Kotler, 1982). From the companies' perspective, being reliable, professional and innovative, having social contribution and valuing the customers are

the elements that form the company image. Martensen et al. (2000) indicate that the image is an important element in the customer satisfaction model. The image is expected to have a positive relationship towards the customer expectations, customer satisfaction and loyalty of customers to the company.

Customer loyalty has been defined as a longterm commitment for the consumer to remain in the same company, and use more products and services in the future (Dick & Basu, 1994; Flavian & Guinaliu, 2006). Company image and customer satisfaction are found to affect positively customers' loyalty (Anderson & Fornell, 2000).

Signal quality and network coverage have always been essential criteria for selecting MTS providers. During the previous years, where technology had not advanced so much in this area, company networks were limited only to certain locations. Today the signal quality has been improved and the company networks have grown to a great extent. Surveys have shown that both signal quality and network coverage affect positively consumer's satisfaction and the image of the company (Woo et al., 1999).

Perceived value is defined as the perceived quality level of a product, compared to the price that a customer pays to acquire it (Fornell et al., 1996). As some researchers have concluded (Day, 1990; Narver and Slater, 1990), the creation of high perceived value is the main target of the market-driven companies. Perceived value provides a comparison measure to the companies in proportion to the price – value ratio (Anderson et al., 1994a).

In the past years, various researches have been conducted on different aspects related to service quality. Traditionally, the quality of services is defined as the difference between the expectations of the customer and the perception of services (Gronroos, 1984; Parasuraman et al., 1988, 1991).

MTS providing companies consider the area of customer service as very important. A proof for the above statement is the continuous expansion of their customer service departments. Customers however, apart from customer service departments, want to have constant communication with the people from other departments within the company. For this reason, all companies are providing free communication with almost all their departments.

The selection of appropriate and qualified personnel is considered to be an essential issue for these companies. Customers in order to be satisfied from a transaction, in addition to the quality of the product and the low price, are also interested in being treated well from the personnel.

The strategic importance of managing customers' complaints was examined for the first time by Fornell & Westbrook (1984). They showed that by encouraging the expression of customer complaints today, a company might be able to decrease future complaints. It is very important for any customer to know where he can address his complaints which will be given the proper consideration.

3. RESEARCH MODEL

Through this survey, an effort is made to study the role of consumers' satisfaction in the area of MTS and its influence on the efficiency of companies. The model incorporates many of the research conclusions and views of other researchers who have been studying similar subjects in other fields or/and in other countries. Their views are various and diverse, and for this reason the proposed research model (Figure 1) includes many factors that affect consumer satisfaction and lead to increased customer loyalty.

The hypotheses that will be tested in this research are the following:

Hypothesis 1: Perceived value has a positive effect on customer satisfaction.

Hypothesis 2: Service quality affects positively:

a) perceived value, and

- b) customer satisfaction.
- Hypothesis 3: Signal and network coverage affects positively:
 a) service quality, and
 b) customer satisfaction.
- Hypothesis 4: Company image affects positively:
 a) customer devotion,
 b) perceived value,
 c) customer satisfaction, and
 d) service quality.
- Hypothesis 5: Customer satisfaction has a positive effect on customer loyalty.

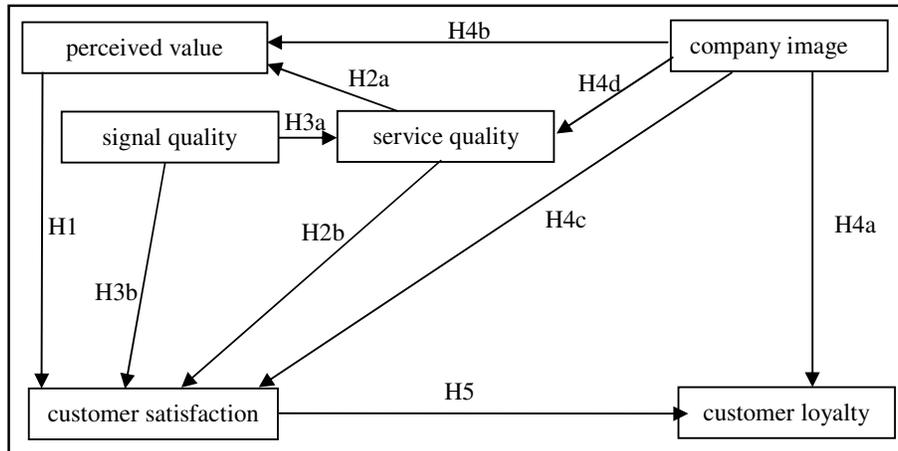


Figure 1: Research model

4. RESEARCH METHODOLOGY

The research was limited to MTS providers that operate in Greece. Through this survey, an attempt has been made to discover to what extent customers of MTS are satisfied by the services offered to them. The questions were chosen so that answers would be given to all the factors that may affect consumers' satisfaction from MTS according to the research model. The questionnaire was consisted of 48 questions and was divided in 9 sections. The Likert scale measurement was used for all the questions (1="strongly agree" and 7="strongly disagree").

5. ANALYSIS AND INTERPRETATION OF THE RESULTS

5.1. Frequency Analysis

The first category of question in the survey questionnaire contains general information about the respondents and the MTS company they use. In the present survey 50.7% of the questionnaires were answered by men, while the remaining 49.3% by women. The age of the majority of the respondents ranges from 18 to 25 years and represents 38.3% of the total number of respondents. As far as the education level is concerned, most of the respondents are high school graduates (40%), while another 36.3% holds a university degree. Moreover, 61.7% of the research participants have a contract with the company, while 39.3% have a prepaid connection package.

Considering the signal quality and network coverage of the company that every respondent uses, it was found that the respondents are generally satisfied. Certainly, the satisfaction from the network coverage outdoors is slightly higher (average=2.31) than the satisfaction from the network coverage indoors (average =2.47). Furthermore, the respondents are satisfied from the transmission quality of the signal (average =2.55).

As far as the perceived value from the customer's point of view is concerned, it was found that they are neither satisfied nor dissatisfied. Specifically, looking at the price of the service packages as well as the quality of the provided services the average response was found to be around the middle point (average 3.18 and 3.44 respectively).

In regards to customer service, the results are rather positive, given that the companies are moving to the right direction and satisfy their customers. Particularly, customers respond that the bills sent to them from the MTS company are precise, undoubted and with fully understandable data (average=2.36). Examining customers' satisfaction from the repair and maintenance services that the customer service departments offers, it is found that although the results show a disposition in favour of satisfaction, it is clear that customers want more and even better services (average=3.02). An explanation for this result could be provided by the fact that only in a limited number of cases customer service departments can respond immediately to customer's demands, while in most of the cases they send the products to be repaired at their headquarters.

The results also reveal that MTS providers pay great attention to the selection of personnel for their offices/shops, as well as to the constant supply of services. The responses concerning the supply of constant services indicate that customers are relatively satisfied (average=2.34). Similar results occur when the satisfaction from the willingness of the personnel (average=2.45) and the satisfaction from the personnel's ability to resolve a given problem (average=2.76) are examined. Thus, it is clear that companies have put great emphasis on these areas and by doing so they have succeeded to increase the level of customers' satisfaction.

Further, evaluating the results concerning customer complaints, it is obvious that there is a customers' tendency to express their dislike, officially or unofficially, when they believe that the services and products companies offer them do not meet their expectations (average=3.12). The frequency of these complaints in many cases is high (average=2.45). Yet, customers claim that there is a difficulty to find where they should address their complaints (average=3.01).

The next category of questions refers to customer loyalty (devotion). It is very obvious that customers have the intention to remain customers of the same company (average=2.35). As regards to whether the respondents have proposed the company they use to others and their satisfaction from the company's pricing policy, the replies were found to be around the middle point (average 3.57 and 3.53 respectively). The conclusion that could be drawn from these results is that the customers are, generally, devoted to their companies. As far as the image of the company is concerned, respondents consider the company they use to be reliable (average=2.19) and professional (average=2.26). Considering its social contribution, the results were not as positive as the previous ones (average=3.07). Satisfactory enough were the replies about whether the company keeps good relations with the customers (average=2.62). The creation of the company image, which is often related to symbols and values, is a continuous process that can be improved fast with some technological achievements, or, on the contrary, be destroyed if the needs and expectations of various users related to the company were to be disregarded (Dichter, 1985; Herbig et al., 1994).

Finally, examining the questions referring to the level of the total customers' satisfaction from their companies, it is revealed that for the majority of the questions the results were positive (average=2.68). Yet, the mean of the question referring to quality of the services provided by the company provides approach the ideal level is relatively low (average=3.54), and this should be food for thought for these companies.

5.2. Factor Analysis

Factor analysis was initially used to examine the research model that was presented in Figure 2. The results are presented in Table 1. The indicators that are being examined for the evaluation

of the results are: (i) Kaiser-Meyer-Olkin (K.M.O.), (ii) Bartlett's test of sphericity, (iii) Total Variance Explained (TVE) and (iv) the loadings of every variable in the factor that it belongs.

Factors	Statistics	Variables	Mean	Standard Deviation	Loadings
Signal quality & network coverage	K.M.O.= 0.720 Bartlett's Sig = 0.00 (TVE) = 76.458 Cronbach (a) = 0.844	Network coverage is satisfactory indoors.	2.47	1.591	0.847
		Network coverage is satisfactory outdoors.	2.31	1.459	0.893
		Transmission quality of signal is satisfactory.	2.55	1.445	0.883
Perceived value	K.M.O.= 0.756 Bartlett's Sig = 0.00 (TVE) = 64.752 Cronbach (a) =0.818	There is a big variety of packet services.	2.65	1.513	0.777
		The cost of packet services is satisfactory.	3.18	1.660	0.809
		The cost of mobile is satisfactory.	3.55	1.717	0.793
		Rating of price has given quality	3.44	1.715	0.838
Customer service	K.M.O.= 0.829 Bartlett's Sig = 0.00 (TVE) = 63.660 Cronbach (a) =0.854	My bills are sent are printed with accuracy, clarity and full data information.	2.36	1.674	0.730
		The service centers' locations are easily to be found.	2.30	1.437	0.836
		I'm satisfied by the working hours of service centers.	2.48	1.623	0.818
		I'm satisfied by the product maintenance of the service centers.	3.02	1.676	0.803
		The communication with the company is satisfactory.	2.81	1.748	0.798
Selection of personell for their establishment	K.M.O.= 0.738 Bartlett's Sig = 0.00 (TVE) = 81.172 Cronbach (a) =0.880	The service is continuous.	2.34	1.353	0.880
		Company's personell is eager.	2.45	1.537	0.916
		The company put efforts to solve customer's inconvenience	2.76	1.736	0.906
Customer complaints	K.M.O.= 0.579 Bartlett's Sig = 0.00 (TVE) = 58.924 Cronbach (a) =0.629	Had the customer complained either formally or informally about the product or service.	3.12	2.095	0.793
		My complaints are frequent.	2.45	1.618	0.859
		Was hard for me to find where to complain.	3.01	1.932	0.633

Customer loyalty	K.M.O.= 0.815 Bartlett's Sig = 0.00 (TVE) = 56.013 Cronbach (a) =0.800	I have no intention not to leave the specific company.	2.35	1.481	0.730
		I have suggested the company I use.	3.53	2.143	0.816
		I'm satisfied by the pricing policy.	3.57	1.884	0.811
		Intended to use much more services.	4.14	1.925	0.682
		The contents company controlled the private and information and transaction data well.	3.10	1.700	0.691
Company image	K.M.O.= 0.841 Bartlett's Sig = 0.00 (TVE) = 65.428 Cronbach (a) =0.891	Being reliable.	2.19	1.403	0.711
		Being professional.	2.26	1.359	0.820
		Social contributions to society.	3.07	1.781	0.763
		Customer relations.	2.62	1.563	0.852
		Innovations and overlooking.	2.85	1.672	0.864
		Add value to user.	3.29	1.837	0.832
Customer satisfaction	K.M.O.= 0.900 Bartlett's Sig = 0.00 (TVE) = 75.389 Cronbach (a) =0.944	I'm overall satisfied.	2.57	1.449	0.861
		I'm pleased for fulfillment of expectations.	2.80	1.605	0.876
		I'm pleased for services compare with ideal.	3.54	1.712	0.804
		I'm pleased for fulfillment of personal needs.	2.54	1.466	0.865
		I'm pleased for overall quality.	2.71	1.474	0.901
		I'm pleased for service quality.	2.73	1.505	0.907
		I'm pleased for product quality.	2.74	1.477	0.859

Table 1: Factor Analysis & Reliability Analysis

According to Malhotra (1999) for factor analysis to apply: (i) the K.M.O. indicator must have values over 0.6, (ii) the significance of Bartlett's test of sphericity must be lower than 0.05, (iii) TVE must be bigger than 60% and (iv) the loadings of every variables must be higher than 0.7. It is easily confirmed that the examined indicators fulfil the above requirements and therefore can be used to further examine the model and test the research hypotheses. It must be stressed that for factors with two variables K.M.O. values higher than 0.5 are accepted (Malhotra, 1999).

5.3. Reliability Analysis

There are various ways that reliability can be evaluated (de Vellis, 1991; Carmines & Zeller, 1979), with Cronbach alpha (a) being the most common one. According to this indicator, values bigger than 0.6 imply consistency and reliability in the way the factors were measured (Nunnally, 1978; de Vellis, 1991; Carmines & Zeller, 1979). In the present study the values of Cronbach alpha indicator are >0.8, except for the factor "customer complaints" where the Cronbach indicator is 0.629.

5.4. Structural Equation Model

For the development of the model the structural equation method (Structural Equation Modeling η SEM) was used. Confirmatory factor analysis (CFA) was used to examine whether customer satisfaction consists of all 5 factors included in the analysis. The overall model fit was evaluated using four fit measures: (i) chi-square/ degree of freedom ($\chi^2/d.f.$), (ii) goodness of fit index (GFI), (iii) comparative fit index (CFI), and (iv) root mean square error of approximation (RMSEA) (Smith and McMillan, 2001). The level of all the above indexes was within acceptable range indicating good fit of the measurement model.

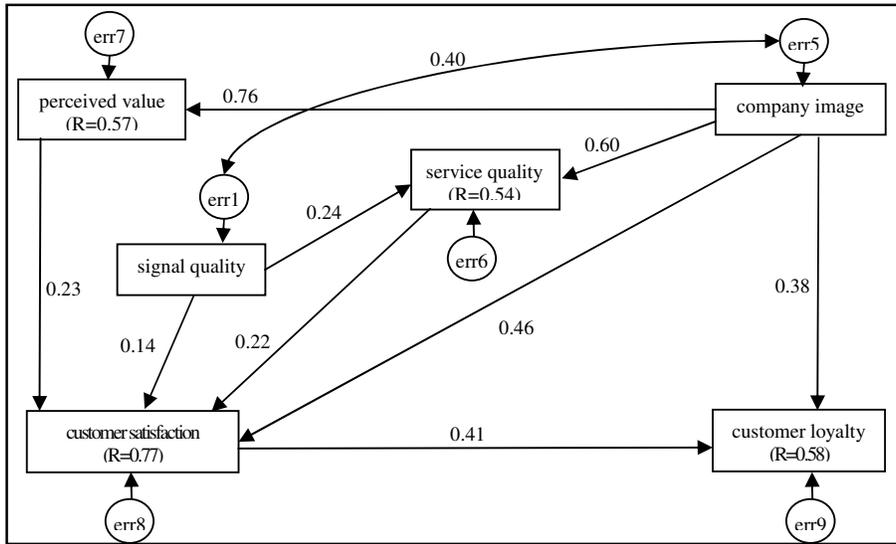


Figure 2: Research model

CMIN/DF	CFI	GFI	TLI	RMSEA
5.623	0.981	0.971	0.944	0.124

Factors	Signal Quality			Perceived value		
	Direct	Indirect	Total	Direct	Indirect	Total
Signal quality						
Perceived value						
Service quality	0.237		0.237			
Customer loyalty		0.078	0.078		0.093	0.093
Company image						
Customer satisfaction	0.137	0.052	0.189	0.226		0.226

Table 2a: Total effects (directs and indirects)

Factors	Service quality			Customer loyalty		
	Direct	Indirect	Total	Direct	Indirect	Total
Service quality						
Customer loyalty						

Signal quality						
Perceived value						
Service quality						
Customer loyalty		0.090	0.090			
Company image						
Customer satisfaction	0.217		0.217			

Table 2b: Total effects (directs and indirects)

Factors	Company image			Customer satisfaction		
	Direct	Indirect	Total	Direct	Indirect	Total
Signal quality						
Perceived value	0.757		0.757			
Service quality	0.605		0.605			
Customer loyalty	0.384	0.312	0.697	0.412		0.412
Company image						
Customer satisfaction	0.457	0.302	0.759			

Table 2c: Total effects (directs and indirects)

Direct, indirect and total effects between the factors, are presented in Table 2. The total effect of perceived value, signal quality, service quality and company image on customer satisfaction is from high to very high (0.226, 0.189, 0.217 and 0.759). All of them explain about 77% of customer satisfaction.

This evidence shows how important these factors are together, and indicates that the MTS providers should pay attention to them. The total effect of customer satisfaction and company image on customer loyalty is also very high (0.412 and 0.697). In this case, 58% of customer loyalty is explained from the other factors. This is also an important finding which should be taken into consideration by MTS companies.

2. CONCLUSIONS – RESEARCH LIMITATIONS

Many and very significant conclusions are derived from this research. To begin with, the factors that were examined have a significant effect on consumers' satisfaction. Companies must consider plenty of parameters in order to succeed in their goal.

The increase in customer satisfaction leads to an increase in customer loyalty. This can lead to a decrease in the price elasticity, lower costs for future transactions, decreased costs of failure,

lower costs for attracting new customers and an improvement in the reputation of the company (Anderson et al., 1994b).

Moreover, it is understood that the signal quality and network coverage is the factor that least affects customer satisfaction. Although the above conclusion was not expected, the explanation may be simple. When MTS first came into our lives, the signal quality was the greatest issue that concerned consumers. MTS companies did not offer network coverage in many locations and customers sought the one that would cover them the most. Nowadays, the services offered by MTS companies have been improved significantly in this respect.

As expected, it was found that the customer satisfaction affects to a great extent customer's loyalty to the company. When a customer is pleased and satisfied by the services that are offered to him, he remains a customer of the company and uses even more services from the same company. Therefore, companies are obliged to keep their customers satisfied if they want to survive in a competitive environment as the one of MTS service providers.

Finally, the most important conclusion that was drawn from the present study is that the image of the company is the factor that affects more than any other factor customer satisfaction and furthermore, affects to a great extent the customer loyalty. The most obvious interpretation is that customers are greatly affected by the "name" of the company and do not equally value other factors such as the quality of the services or the network coverage.

Through the present study, much useful information can be derived that involve the image of the Greek market in the sector of MTS. From an administrative viewpoint, acquiring the knowledge of what more people want to be offered by a company is very important. Customers of MTS providers indicated that the main issue that concerns them is the reduction in the cost of the services, thus, where substantial emphasis must be given by the providers on this issue.

This study has some limitations. The survey was carried out in a sample of 300 people. Perhaps, the survey should be repeated using a larger sample for better results.

The survey was based on a certain consumer satisfaction model. Even though useful conclusions were drawn, the inclusion of some other factors could improve the model.

Since some people from the sample, especially people of older age, are not substantially conversant with the subject but they are simple users, that may have had an impact on their answers.

Moreover, due to the fact that the questions have elements of subjectivity, some of the respondents may have overestimated a question by evaluating it with 1 (on Likert scale) when it should be 2, or underestimated one by evaluating it with 6 when it should be 5.

Furthermore, the present research has many parameters which presented a problem for the collection of all the data that were necessary.

Finally, people that used Q-telecom did not participate in the research, due to the fact that the company does not have a privately-owned telecommunication network.

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