

# AN INTEGRATED MODEL OF CUSTOMER LOYALTY IN THE MACEDONIAN MOBILE SERVICE MARKET

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## Introduction

In today's competitive environment, creating and maintaining customer satisfaction and consequently customer loyalty is of vital importance to the companies. At the same time, it is a challenging task because little is known about how customers differ in their relational preferences (Palmatier et al., 2006) and because there are a lot of variables that influence customer loyalty. Although customers tend to be more demanding and less loyal (Reichheld, 1996), service marketers are convinced that building enduring relationships with the customers is incredibly important because loyal customers are less costly to serve, buy more, pay premium prices and spread positive word-of-mouth (Zeithaml, 2000; O'Brian & Jones, 1995).

Among the various factors that directly or indirectly influence customer loyalty, perceived service quality and customer satisfaction are frequently viewed as key determinants of customer loyalty (Vildová et al., 2015; Setó-Pamies, 2012; Cronin et al., 2000) with a confirmed mediating effect of customer satisfaction in the service quality-customer loyalty relationship (Srivastava & Rai, 2013; Caruana, 2002). Additionally, switching costs and switching barriers are also viewed as key determinants of customer loyalty (de Matos et al., 2009; Lee et al., 2001). Namely, when switching costs are high, customers may stay loyal even if they are not highly satisfied (Santouridis & Trivellas, 2010). Although the research interest on perceived service quality, customer satisfaction, switching costs, switching barriers and customer loyalty has been increasing regularly, the number of research studies integrating all these variables in exploring customer loyalty is rather scarce.

Recently, there has been an exponential increase in research on service quality,

customer satisfaction and customer loyalty in the mobile service industry. Specifically, a number of researchers have attempted to reveal the relationship among various independent variables and customer loyalty as a dependent variable in the mobile service industry (Santouridis & Trivellas, 2010; Gerpott et al., 2001). Even though all these research efforts have advanced marketers' understanding of mobile service consumer behaviour and particularly of the relationships among perceived service quality, customer satisfaction, and customer loyalty (Lee, 2013), yet an integrated model of loyalty in the mobile service context with switching barriers and switching costs as supplementary variables is still rare. This study strives to fill this research gap by proposing and testing an integrated model of customer loyalty. Moreover, the different effects of switching costs and switching barriers on the satisfaction-loyalty relationship are examined, since there is a lack of empirical studies testing these approaches simultaneously (de Matos et al., 2009).

The research context of our study is the mobile service industry in Macedonia. At present, three mobile service providers and one mobile virtual network operator operate in Macedonia, giving users a choice when considering their mobile communications needs. With a number of active mobile service users higher than the population, and a low mobile service users growth rate of only 1.05% in the third quarter of 2014 compared to the third quarter of 2013 (Agency for Electronic Communication of the Republic of Macedonia, 2014), the Macedonian mobile service market is reaching its maturity. In such conditions, the mobile operators are focusing their marketing efforts on retaining the current customers through creating customer loyalty. It is generally accepted that a high level of customer satisfaction will result in high level of customer

loyalty, but sometimes, customers can manifest high level of repeat purchases as a result of some switching barriers they are facing.

Considering that, to the best of our knowledge, no article examining the customer loyalty of the mobile service industry in Macedonia has been published so far, this article is the first attempt to analyse the effects of perceived service quality, customer satisfaction, switching costs and switching barriers on customer loyalty. The overall research objective is to gain insight into the factors affecting customer loyalty, to develop a model accordingly, and to test the model empirically. Therefore, the purpose of this study is to present a theoretical framework of the factors that potentially influence customers to remain loyal to their existing mobile service provider and to find the appropriate model for measuring customer loyalty in the mobile service market in a developing country.

Thus, the main objectives of this study are:

a) to examine the relationship between service quality and customer satisfaction; b) to assess the relationship between customer satisfaction and customer loyalty; c) to explore the mediating role of customer satisfaction in the relationship between service quality and customer loyalty; d) to explore the direct, mediating and moderating role of switching costs and switching barriers on the relationship between customer satisfaction and customer loyalty; and e) to validate the proposed conceptual model.

The article suggests that customer loyalty is positively determined by service quality, customer satisfaction and switching barriers, further exploring their additional effects on customer loyalty. This forms the basis for the development of a research model and hypotheses, using SEM. The article is structured as follows: firstly, the concepts of service quality, customer satisfaction, customer loyalty, switching costs and switching barriers are elaborated, and then hypotheses regarding their relationships are developed. Secondly, the research methodology is presented followed, by a presentation of findings and conclusions. The last section outlines the theoretical and managerial implications, limitations, and directions for future research.

Our findings have clear implications for marketing managers in the mobile service industry interested in maintaining a loyal customer base. The findings could serve well

as guidelines when modelling, measuring and tracking customer loyalty in the mobile service industry, and should be considered when designing marketing strategies aimed at building long-term relationships with customers.

## 1. Conceptual Model and Hypotheses Development

The conceptualization and operationalization of the main concepts in this study is based on relevant literature, presented below. Additionally, hypotheses regarding the relationships among the concepts are developed.

### 1.1 Service Quality

The conceptualization of service quality is derived from the product quality literature and customer satisfaction literature (Brady & Cronin, 2001). Generally, the defining of service quality is based on the comparison between customers' expectations and their perceptions regarding the delivered service (Lehtinen & Lehtinen, 1991; Parasuraman et al., 1988; 1985; Grönroos, 1984). Grönroos (1984, p. 37) has defined service quality as "the outcome of an evaluation process, where the consumer compares his expectations with the service he perceives he has received, i.e., he puts the perceived service against the expected service". In that direction, Parasuraman et al. (1988, p.16) has defined service quality as "a global judgment, or attitude, relating to the superiority of the service".

Some authors have argued the conceptualization of customer expectations (Teas, 1993,) and the conceptualization and measurement of service quality as a difference between customer perceptions and expectations (Cronin & Taylor, 1992). Based on this, some studies have operationalized service quality as a performance-based concept (Cronin, 2003; Brady et al., 2002; Dabholkar et al., 2000). Although these studies avoid customer expectations in defining and measuring service quality, they do not argue the implicit effect of customer expectations in creating customer perceptions regarding performance of the service.

Even though most of the studies suggest multi-dimensionality of the service quality concept (Kang & James, 2004; Parasuraman et al., 1985; 1988), there are studies analysing it as a uni-dimensional concept (Cronin & Taylor, 1992). Moreover, there is a variation

of the number and nature of the identified dimensions (Orel & Kara, 2014; Marković & Raspor Janković, 2013; Ciunova-Shuleska et al., 2013; Petridou et al., 2007; Glaveli et al., 2006; Brady & Cronin, 2001), contingent on the cultural and service context of the study. The most recognized are the conceptualizations proposed by Parasuraman et al. (1988; 1985), identifying five SERVQUAL dimensions (tangibles, reliability, responsiveness, assurance and empathy), and the two-dimensional conceptualization of service quality (technical and functional dimension), proposed by Grönroos (1984).

For the purpose of this study, service quality is conceptualized and operationalized as an attitude resulting from customer perceptions of service performance. The dimensionality of perceived service quality was further tested in order to identify the underlying dimensions of service quality in the mobile service sector.

## 1.2 Customer Satisfaction

Although customer satisfaction literature has evolved over the years, there is inconsistency in defining this concept. Generally, customer satisfaction is defined as a process of evaluation (Vavra, 1997; Fornell, 1992) or as an outcome (result) of this process (Oliver, 2010; Yi, 1990). While Fornell (1992, p. 11) defines customer satisfaction as “an overall post-purchase evaluation”, Oliver (2010, p. 8) suggests that customer satisfaction is “the consumer’s fulfillment response”. Oliver (1997, p. 13) has stated that “satisfaction is a judgment that a product or service feature, or the product of service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over-fulfillment”.

Initially, customer satisfaction research was focused on defining and measuring it on a transactional level as a customer’s experience with a product episode or service encounter (Oliver, 1997; Yi, 1990;). In the early 1990s, as the marketing paradigm changed from transaction-oriented to relational marketing, customer satisfaction studies are emphasised the cumulative perspective of conceptualisation and measurement of customer satisfaction (Anderson & Fornell, 2000; Fornell et al., 1996; Anderson et al., 1994). The recent national customer satisfaction index models are based on the cumulative perspective conceptualizing

customer satisfaction as a customer’s overall evaluation of a product or service provider to date (Fornell et al., 1996).

In this paper, service quality and customer satisfaction are analysed and measured as different concepts at a cumulative level, as this perspective is crucial in understanding the importance of these two concepts and the relationship between them (Anderson & Fornell, 1994). Terpstra and Verbeeten (2014, p. 499) assume that “customer satisfaction is evoked by the customer’s entire experience with the company”. In addition, measuring customer satisfaction at a cumulative level provides better results in predicting the effect on customer loyalty (Yang & Peterson, 2004) and presents a better indicator of the past, current and future company’s performances (Anderson et al., 1994). Actually, customer satisfaction itself is often used as an essential marketing performance indicator (Rego et al., 2013).

## 1.3 Customer Loyalty

Customer loyalty is a complex concept and different researchers provide different definitions and operationalizations regarding this concept. In the past, customer loyalty was studied using only the behavioral approach (Rust & Zahorik, 1993), which identifies customer loyalty with repeat purchases, i.e. customer retention (Zeithaml et al., 1996). This conceptualization does not provide an explanation of the psychological aspects and causes of customer loyalty. Many times customers repurchase the company’s products and services not because they have strong preferences, but because they are simply inert, they perceive a high level of switching costs, or because of some other switching barriers. In that direction, Dick and Basu (1994) assume that true customer loyalty is not based only on the high level of repurchasing, but also on the positive relative customer attitudes regarding affective brand evaluation. In fact, attitudinal loyalty is reflected in the preferences for the company, compared to their competitors. Dick and Basu (1994, p. 99) have defined customer loyalty as “the strength of the relationship between an individual’s relative attitude and repeat patronage”.

The conceptualization of customer loyalty as a combination of behavioral and attitudinal dimension is additionally supported by many authors (Picón et al., 2014; de Matos et al.,

2009; Wong & Sohal, 2003; Ganesh et al., 2000). Some authors add a cognitive dimension to conceptualizing customer loyalty (Bloemer et al., 1999; de Ruyter et al., 1998), referring to the brand's attributes evaluation in the buying decision-making process and to benefits from the repeat patronage (Caruana, 2002; Lee & Cunningham, 2001). In this study, the concept of customer loyalty is operationalized as a combination of a behavioral and attitudinal approach, measuring repurchase intentions, intentions for recommendations to friends, etc.

### 1.4 Switching Barriers and Switching Costs

Switching barriers makes it more difficult or costly for customers to change providers, and refers to *interpersonal relationships* (Colgate & Lang, 2001; Jones et al., 2000); *perceived switching costs* (time, money and effort) (Larivière, 2008; Jones et al., 2000); *attractiveness of competing alternatives* (Wu, 2011; Larivière, 2008; Jones et al., 2000), and *service recovery* (Colgate & Lang, 2001). For a given level of customer satisfaction, the level of customer loyalty can vary depending on the level of switching barriers (Kim et al., 2004; Colgate & Lang, 2001; Jones et al., 2002; Lee & Cunningham, 2001). Therefore, companies should strive to understand factors which have a positive effect on customer retention, and thus apply a combined strategy, complementing the effects of customer satisfaction (Tesfom & Birch, 2011).

In this study, our focus is on switching costs, since they are among the most analysed factors influencing the relationship between customer satisfaction and loyalty (de Matos et al., 2009; Burnham et al., 2003; Jones et al., 2002; Lee & Cunningham, 2001; de Ruyter et al., 1998).

Generally, switching costs can be defined "as the perceived economic and psychological costs associated with changing from one alternative to another" (Jones et al., 2002, p. 441). Recently, switching costs are analysed as a multidimensional concept, consisting of the following dimensions: economic (Aydin et al., 2005; Patterson, 2004; Lee & Cunningham, 2001), i.e. financial costs (de Matos et al., 2009; Burnham et al., 2003); procedural switching costs (de Matos et al., 2009; Aydin et al., 2005; Burnham et al., 2003), and relationship costs (Burnham et al., 2003; de Matos et al., 2009), i.e. psychological costs (Aydin et al.,

2005; Patterson, 2004). Blut et al. (2014) have suggested a two-dimensional approach of switching costs, comprising the internal and external perspective of switching costs.

In this study, switching costs are analysed as direct determinants of switching barriers. Furthermore, the dimensionality of switching costs is analysed in order to identify the underlying dimensions of switching costs in the mobile service context in Macedonia.

### 1.5 Hypotheses Development

Service quality is analysed as one of the service factors contributing to customer satisfaction judgements (Gounaris & Boukis, 2013; Caruana, 2002). In fact, most of the studies exploring the relationship between service quality and customer satisfaction have proved the existence of a strong positive relationship where customer satisfaction is a consequence of service quality (Orel & Kara, 2014; Rajic et al., 2013; Pisnik Korda et al., 2012; Kang & James, 2004; Brady & Robertson, 2001; Dabholkar et al., 2000; Cronin et al., 2000). Additionally, the causal order of service quality and customer satisfaction is consistent across cultures (Marinković et al., 2011; Pisnik Korda & Snoj, 2010; Kang & James, 2004; Brady & Robertson, 2001; Dabholkar et al., 2000) and the positive effect of service quality on customer satisfaction has been also confirmed by several studies in the mobile service sector (Santouridis & Trivellas, 2010; Kim et al., 2004; Lee et al., 2001; Bayol et al., 2000). Based on this, the following hypothesis is proposed:

*H1: Perceived service quality has a direct and positive effect on customer satisfaction.*

Improvement of service quality supports defensive marketing strategies focused on retaining current customers (Bell et al., 2005). Although customer loyalty is implicitly set as an ultimate dependent variable in service quality models (Fornell et al., 1996), theoretical and empirical evidence is lacking regarding this relationship (de Ruyter et al., 1998). Numerous empirical studies suggest a positive relationship between customer satisfaction and customer loyalty (Picón et al., 2014; Orel & Kara, 2014; Kuo et al., 2013; Cronin et al., 2000; Dabholkar et al., 2000) as well as, between perceived service quality and customer loyalty (Chen et al., 2013; Mittal & Lassar, 1998; Zeithaml et al., 1996). Most of the studies analyse the influence of service quality on customer loyalty as a direct

effect (Wong & Sohal, 2003; Bloemer et al., 1999; de Ruyter, 1998; Zeithaml et al., 1996) or as an indirect effect, mediated by customer satisfaction (Prentice & King, 2014; Orel & Kara, 2014; Kuo et al., 2013; Beerli et al., 2004; Dabholkar et al., 2000). Some authors indicate that service quality has a simultaneous direct and indirect influence on customer loyalty, i.e. on repurchase intentions (Kim et al. 2014; Bei & Chiao, 2006; Varki & Colgate, 2001; Cronin et al., 2000), suggesting an integrated approach in conceptualizing customer loyalty. Similar results have been found in the mobile service studies, suggesting the positive effect of service quality on customer loyalty, mediated by customer satisfaction (Santouridis & Trivellas, 2010; Kim et al., 2004; Lee et al., 2001). Based on the presented literature, the following hypotheses are derived:

*H2: Service quality has a direct and positive effect on customer loyalty.*

*H3: Customer satisfaction has a direct and positive effect on customer loyalty.*

*H4: Service quality has an indirect and positive effect on customer loyalty, mediated by customer satisfaction.*

Since the customer satisfaction-loyalty relationship is complex, the research goes further in exploring its nature and in analysing other factors that influence customer loyalty. The effect of customer satisfaction on customer loyalty and repurchase intentions depends on the level of switching barriers in the analysed service sector (Jones et al., 2000). In this study, switching barriers are analysed as contractual obligations which affect customer loyalty, while switching costs are analysed as the most important factor and a direct determinant of switching barriers (Kim et al., 2004). This study, in fact, examines the role of switching barriers in the relationship between customer satisfaction and customer loyalty, assuming the direct effect of switching costs on switching barriers. Therefore the following hypothesis is proposed:

*H5: Switching costs has a direct and positive effect on switching barriers.*

In the literature, there is inconsistency in analysing switching costs as a direct determinant of customer loyalty (Blut et al., 2014; Pick & Eisend, 2014; de Matos et al., 2009; Beerli et al., 2004; Burnham et al., 2003; Jones et al., 2002); as a moderator of the relationship between customer satisfaction and loyalty (Picón et al., 2014; de Matos et al.,

2009; Yang & Peterson, 2004; Patterson, 2004; Jones et al., 2000), or as a mediator (de Matos et al., 2009; Aydin & Özer, 2006).

The given variable (e.g. switching costs) is a moderator if, only on certain conditions of this variable, the predictor (e.g. satisfaction) is related to the outcome variable (e.g. loyalty) and the moderator affects the form or the strength of the relationship (Walsh et al., 2008). The findings of the moderating role of switching costs show that “as switching costs increase, the relationship between satisfaction and repurchase intentions (loyalty) decreases” (de Matos et al., 2009, p. 509).

A mediator transmits the effect of an independent variable to a dependent variable, explaining the relationship between them (MacKinnon & Fairchild, 2009). A mediating effect of switching costs in the satisfaction-loyalty relationship is present if “there is no direct effect between satisfaction and loyalty, but there is a direct effect of satisfaction on switching costs and this one on loyalty (satisfaction-switching costs-loyalty)” (de Matos et al., 2009, p. 509). Although the relationship between customer satisfaction and loyalty proves to be strong (Picón et al., 2014; Orel & Kara, 2014; Kuo et al., 2013), it is further expected switching costs to be determined by satisfaction and to directly affect loyalty (Picón et al., 2014).

The mobile service studies have analysed the direct effect of switching costs on customer loyalty (Aydin et al., 2005; Kim et al., 2004), the moderating role of switching costs (Aydin et al., 2005; Kim et al., 2004; Lee et al., 2001), as well as the mediating role of this variable in the relationship between customer satisfaction and loyalty (Aydin & Özer, 2006). In this study, the influence of switching costs on customer loyalty is analysed indirectly, through switching barriers and the different effects of switching barriers (i.e. direct, mediating and moderating) on the relationship between customer satisfaction and loyalty are tested. Therefore, the following hypotheses are proposed:

*H6: Switching barriers has a direct and positive effect on customer loyalty.*

*H7: Switching barriers has a mediating role in the relationship between customer satisfaction and customer loyalty.*

*H8: Switching barriers has a moderating role on the relationship between customer satisfaction and customer loyalty.*

Since switching barriers are analysed as a mediator in the relationship between customer satisfaction and customer loyalty, implicitly, it is assumed that customer satisfaction has a direct effect on switching barriers. Therefore, the following hypothesis is suggested:

*H9: Customer satisfaction has a direct and positive effect on switching barriers.*

Based on the previously reviewed literature, the authors have developed the conceptual model (Fig. 1), simultaneously linking service quality, customer satisfaction, customer loyalty, switching costs and switching barriers.

## 2. Research Methodology

### 2.1 Sampling and Measuring

The questionnaire used in this study was designed to collect empirical data referring to mobile service users' perceptions of service quality, customer satisfaction, customer loyalty, switching costs and switching barriers. Each of these concepts could not be directly measured and therefore multi-item scales were developed for each latent construct. In order to ensure content validity, the previously analysed relevant literature was used for the operationalization of each construct (Kim et al., 2004; Brady & Robertson, 2001; Bayol et al., 2000; Ganesh et al., 2000; Bloemer et al., 1999). All of the items were measured on a five-point Likert scale (1 = "strongly disagree" to 5 = "strongly agree"). The questionnaire also comprised demographic questions. Since the questionnaire was translated into and adapted to Macedonian, a backward translation in English was done, in order to avoid any misunderstandings. The questionnaire was pre-tested by 8 mobile service users and minor refinements of the wording were made. The final research was conducted on undergraduate students at the Faculty of Economics – Skopje, collecting 224 responses out of which 209 were valid. Although modest, the sample size is above the recommended minimum level of at least ten times as many observations as the number of variables to be analysed (Hair et al., 2006). The average age of the respondents is 21.85 and 66.51% of them are females, reflecting the average age and gender structure of the students at the Faculty of Economics – Skopje. Considering that young people are the heaviest users of mobile service (not only for talking, but also for texting and Internet usage), they are in fact the most potential market segment. With

the rapid proliferation of smartphones, young people are using their mobile devices for online activities three times longer than the elders (McKinsey & Company, 2013). Additionally, in view of creating long-term customer relationship and building loyalty, young people are an even more prominent segment which mobile service providers should be focused on, since they and their upcoming families will constitute the customer base of mobile service providers in the future.

### 2.2 Measurement Assessment

The exploratory factor analysis was performed by using SPSS v20, while for performing confirmatory factor analysis structural equation modelling AMOS v20 was applied. First, the multiple items measuring the respective constructs were factor-analysed in order to determine the dimensionality of each construct (Churchill, 1979). The results indicated uni-dimensionality of all the proposed constructs. Furthermore, internal consistency of the items representing each construct was assessed by using Cronbach's alpha. The reliability of each construct was as follows: perceived quality = 0.880; customer satisfaction = 0.894; customer loyalty = 0.907; switching costs = 0.877 and switching barriers = 0.672. All the values were above 0.6, exceeding the threshold values recommended by Hair et al. (2006) and indicating high internal reliability of the data collected. Hence, the items were suitable for use as reflective indicators in further confirmatory factor analysis (CFA) and structural equation modelling (SEM). The validity of the proposed measurement model was assessed by conducting CFA (Tab. 1).

It was observed that all the items appeared to have a significant relationship with the hypothesized constructs. Namely, the manifest indicators were good reflections of their respective latent constructs with moderate to strong standardized loadings (0.58-0.899). The t-values were all significant ( $p < 0.01$ ). On inspection of the output files, the parameter modification indices showed no need for loosening constraints on certain model parameters in order to improve the overall model fit, providing support that the model specification was appropriate. Moreover, because of the large standardized residual covariances between some of the variables, discrepancies between the proposed model and estimated model were

Tab. 1: Items, standardized loadings and CR

Constructs/items	Mean	SD	Standardized regression coefficients	CR
Perceived service quality				0.782
Customer service and personal advice offered	3.823	0.833	0.805***	
Quality of the services one uses	3.813	0.843	0.765***	
Reliability and accuracy of the products and services provided	3.656	0.864	0.638***	
Customer satisfaction				0.900
Satisfaction with the decision to be a user of this mobile operator	4.038	0.796	0.805***	
The choice to be a user of this mobile operator was a wise one	4.053	0.873	0.890***	
Considering the right thing was done when starting to use this mobile operator	4.072	0.877	0.899***	
Customer loyalty				0.907
Considering the mobile operator as the first choice among mobile operators	3.785	1.196	0.881***	
Intentions to use the services of this mobile operator even if its prices somewhat increased	3.297	1.184	0.866***	
Intentions to complain to other customers if a problem is experienced	3.646	1.147	0.876***	
Switching costs				0.856
Difficulty of changing number	3.474	1.144	0.751***	
Loss of benefits, such as mileage program	3.120	1.256	0.672***	
Inconvenience of having to learn a new service	3.258	1.193	0.810***	
Need to search for information on a new mobile operator when switching	3.459	1.172	0.791***	
Subscription fee for new membership	3.297	1.212	0.652***	
Switching barriers				0.701
Economic loss associated with switching mobile operators	2.737	1.153	0.873***	
Psychological burden associated with switching mobile operators	2.067	1.191	0.580***	

Source: authors' calculations

Fit indices:  $\chi^2/df = 1.128$ ; GFI = 0.942; AGFI = 0.916; CFI = 0.993; RMR = 0.042; RMSEA = 0.025, NFI = 0.94Recommendation criteria:  $\chi^2/df < 2$ ; GFI (goodness-of-fit-index) > 0.90; AGFI (adjusted goodness-of-fit index) > 0.90; CFI (comparative fit index) > 0.90; RMR (root mean squared residual) < 0.05; RMSEA (root mean square error of approximation) < 0.05; NFI (normative fit index) > 0.90\*\*\* significant at  $p < 0.01$ 

noted. Consequently, five items were removed from the model: three items on service quality (technical quality of the network; range of services and products offered; clarity and transparency of information provided); one item on customer loyalty (intention to recommend the operator); and one item on switching costs (cost of replacing the mobile device). The final model consists of 16 items, measuring

five constructs: perceived quality, customer satisfaction, customer loyalty, switching cost and switching barriers. The confirmatory factor analysis indicated that the validity evaluation standards were satisfied (Tab. 1). In addition, the chi-square/degrees of freedom ratio was well below March & Hocevar's (1985) criterion. Therefore, the proposed research model can be recommended as an acceptable model.

Tab. 2: Convergent and discriminant validity

	AVE	Square root of AVEs in diagonal cells				
		Switching costs	Service quality	Customer satisfaction	Customer loyalty	Switching barriers
Switching costs	0.544	0.738				
Service quality	0.547	0.123	0.739			
Customer satisfaction	0.749	0.162	0.571	0.866		
Customer loyalty	0.764	0.199	0.544	0.553	0.874	
Switching barriers	0.549	0.543	0.067	0.132	0.260	0.741

Source: authors' calculations

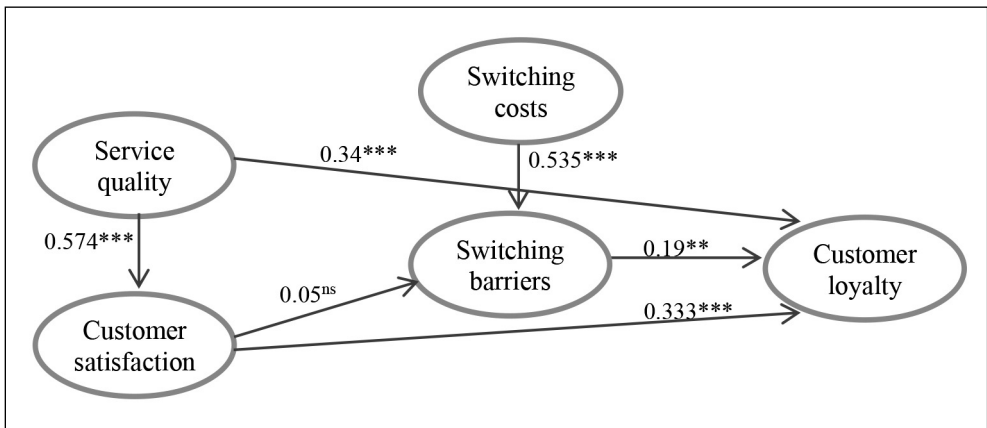
The composite reliability values (CR) for all the constructs are above 0.70 (ranging from 0.701 to 0.907), confirming internal consistency of the measures (Tab. 1). Construct validity was assessed by examining the convergent and discriminant validity of each construct. In the assessed measurement model, the average variance extracted value (AVE) of each construct is above the threshold value of 0.50 (Fornell & Larcker, 1981), suggesting adequate convergent validity of the constructs (see Tab. 2). Discriminant validity of each construct in the proposed model is proved, by using square-roots of the AVEs which should be higher than the squared correlation coefficients of each pair of constructs (Hair et al., 2006) (Tab. 2).

### 3. Research Findings

In the final stage of the analysis, hypothesised relationships between constructs were analysed through structural equation modelling (SEM).

The results (Tab. 3) confirm most of the hypothesised positive and direct relationships, except the relationship between customer satisfaction and switching barriers (H9). The strongest positive relationships are those between service quality and customer satisfaction (0.574\*\*\*), supporting H1 and between switching costs and switching barriers (0.535\*\*\*), supporting H5. Additionally, service quality and customer satisfaction, separately, have a significant influence on customer loyalty (0.34\*\*\* and 0.333\*\*\*, respectively). These

Fig. 1: Structural model



Source: own

Fit indices:  $\chi^2/df = 1.113$ ; GFI = 0.941; AGFI = 0.917; CFI = 0.993; RMR = 0.046; RMSEA = 0.023, NFI = 0.939



Tab. 3: Standardized regression coefficients within the structural model

			Standardized regression coefficient	S.E.	C.R.
H1: Customers satisfaction	<---	Service quality	0.574***	0.108	6.181
H2: Customer loyalty	<---	Service quality	0.340***	0.178	3.647
H3: Customer loyalty	<---	Customer satisfaction	0.333***	0.139	3.929
H5: Switching barriers	<---	Switching costs	0.535***	0.113	6.017
H6: Customer loyalty	<---	Switching barriers	0.190**	0.076	2.630
H9: Switching barriers	<---	Customer satisfaction	0.050 <sup>ns</sup>	0.116	0.687

Source: authors' calculations

Where ns = non-significant; \*\*\*p < 0.00; \*\*p < 0.01; \*p < 0.05

results support H2 and H3. The hypothesis referring to the positive relationship between switching barriers and customer loyalty, i.e. H6 was also confirmed (0.19\*\*).

As an ultimate variable in the model, customer loyalty is strongly determined by service quality, customer satisfaction and switching barriers. On the one hand, customers will remain loyal when they perceive a high level of service quality and experience a high level of satisfaction, expressing attitudinal loyalty as well (Picón et al., 2014). On the other hand, the existence of switching barriers could force customers to retain the current service provider even when they are dissatisfied, in order to economize on switching costs (Lam et al., 2004). Customers perceive switching to an alternative provider as a potentially time-consuming and risky task and therefore they are motivated to stay loyal (Woisetschläger et al., 2011).

The absence of influence of customer satisfaction on switching barriers (rejection of H9) is contrary to the suggestions of Picón et al. (2014) that at a certain level of customer satisfaction, customers perceive greater opportunity costs in switching the provider. This could be explained by the relatively low level of switching costs that customers perceive on the Macedonian mobile service market, thus minimizing the perceived loss of satisfaction when switching. Namely, when switching costs are low, a relatively strong satisfaction-loyalty relationship is expected, i.e. customer's decision to stay or leave is based on the satisfaction level (Woisetschläger et al., 2011).

The hypotheses which refer to the indirect effect of service quality and customer satisfaction

on customer loyalty (H4) and the mediating/moderating effect of switching barriers on the customer-loyalty relationship (H7 and H8) were further tested by conducting mediation and moderation analysis, appropriately.

The mediation analysis proved the mediating role of customer satisfaction in the relationship between service quality and customer loyalty, supporting H4. Since the regression coefficient declined considerably (from 0.529 to 0.34), but is still significant, and the indirect effect is significant (0.197\*\*), a partial mediation of customer satisfaction was proved. This result suggests that besides the direct influence, service quality has a simultaneous indirect influence on customer loyalty. Actually, perceived service quality transmits some of the effects of customer satisfaction on loyalty, i.e. in creating customer loyalty, mobile service providers should strive not only to create customer satisfaction, but also to deliver an adequate level of service quality.

Although it was proposed that switching barriers have a mediation role in the relationship between customer satisfaction and customer loyalty (H7), this hypothesis was not confirmed. Step 2 (the correlation between the causal variable and the mediator) proposed by Baron & Kenny (1986) was not completed, and also the indirect effect of switching barriers was insignificant, suggesting that switching barriers do not mediate the relationship between customer satisfaction and customer loyalty.

Moreover, the moderating role of switching barriers on the relationship between customer satisfaction and customer loyalty was assessed, by imputing an interaction construct

in the model (customer satisfaction X switching barriers), as proposed by Baron & Kenny (1986). The relationship between the interaction (customer satisfaction X switching barriers) and customer loyalty is insignificant ( $-0.326^{ns}$ ), thus not confirming H8.

Since the hypothesized mediating and moderating role of switching barriers was not confirmed in the relationship between customer satisfaction and customer loyalty, the authors suggest only the direct and positive influence of customer satisfaction on customer loyalty. Additionally, customer loyalty is also separately and positively influenced by switching barriers.

The results suggest that switching barriers neither transmit (mediate) nor change (moderate) the effect of customer satisfaction on loyalty. Customer satisfaction affects customer loyalty at any level of switching barriers and even more, switching barriers do not account for some proportion of the satisfaction-loyalty relationship. Actually, customer loyalty is separately determined both by customer satisfaction and by switching barriers, i.e. retaining customers could be ensured either by creating customer satisfaction or by setting a high level of switching barriers. The presented results (Tab. 3) suggest that customer satisfaction is a stronger determinant of customer loyalty than switching barriers. This could be a result of the decreasing level of switching barriers on the Macedonian mobile service market and therefore, of the decreasing reinforcing power of switching barriers on customer loyalty. Having in mind the complexity of the satisfaction-loyalty link, it could be expected some other variables to mediate and/or moderate this relationship.

The proposed structural model suggests customer loyalty as an ultimate construct, explained by service quality, customer satisfaction, switching costs and switching barriers. Based on the value of  $R^2$ , which is 0.417 for customer loyalty, it could be concluded that 41.7% of the variation in customer loyalty is explained in the proposed model.

## Conclusions

This study provides researchers and managers with insights into the effect of service quality, customer satisfaction, switching costs and switching barriers on customer loyalty, thus contributing to better understanding of customer loyalty in the emerging markets in the context of

the mobile service industry. The present study fills the identified research gaps, concerning the lack of: integrated approach in exploring customer loyalty and simultaneous analysis of the different roles of switching costs and switching barriers on the satisfaction-loyalty relationship. In that direction, this study successfully proposes and tests the integrated customer loyalty model and accomplishes the set research objectives.

As suggested by several authors (Bei & Chiao, 2006; Varki & Colgate, 2001; Cronin et al., 2000), the results of the present study indicate that service quality has a simultaneous direct and indirect effect on customer loyalty, partially mediated by customer satisfaction. This influence has proved to be positive, suggesting that a higher level of perceived service quality will result in a higher level of customer satisfaction, which in turn would create a higher level of customer loyalty in the mobile service sector. Thus, the nature of the relationship between service quality and customer loyalty is partially explained by customer satisfaction.

The relationship between customer satisfaction and customer loyalty has been further explored by incorporating switching costs and switching barriers and by analysing the different effects on the satisfaction-loyalty relationship. The mediating and moderating role of switching barriers on the relationship between customer satisfaction and customer loyalty were not proved, suggesting only the direct and positive effect of customer satisfaction on customer loyalty. This result is partially in line with the study of Aydin et al. (2005) and Kim et al. (2004), which indicated a simultaneous direct and moderating effect of switching costs on customer loyalty. Based on the results, a given level of customer satisfaction will result in an appropriate level of customer loyalty, regardless of the level of switching barriers. At the same time, it is significant to be noted that although switching barriers are not a mediator nor a moderator of the satisfaction-loyalty relationship, they have a direct and positive effect on customer loyalty. That is, the level of switching barriers determines the level of customer loyalty in the mobile service market, regardless of the level of customer satisfaction. Therefore, customer satisfaction and switching barriers are distinct antecedents of customer loyalty.

This research is of great value as there is scarcity of studies that analyse the different roles

of switching barriers on the customer satisfaction-loyalty, while at the same time analysing the mediating role of customer satisfaction in the relationship between service quality and customer loyalty within the same model. Finally, customer loyalty is explored on an integrated level, simultaneously analysing service quality, customer satisfaction, switching costs and barriers as determinants of customer loyalty.

From the managerial perspective, it is hugely important for companies to be well-informed about the key factors influencing customer loyalty, since they are increasingly focused on retaining the acquired customers. Although service quality, customer satisfaction, switching costs and switching barriers and their influence on customer loyalty has been subject to increased interest among the researchers so far, this study is among the first to provide empirical evidence on the role of switching barriers in the customer satisfaction-loyalty relationship in the mobile service sector of a developing economy.

The conducted research in the mobile service sector in Macedonia illustrates that service quality can be relied upon to have an impact directly and indirectly via customer satisfaction on customer loyalty. Therefore, as the indirect positive impact of increased service quality on customer loyalty was confirmed, the companies should be interested not only in investing in increasing service quality but in increasing customer satisfaction as well. This is because the benefits of investing in higher service quality in terms of higher customer loyalty could be mediated by increasing the level of customer satisfaction. On the other hand, the direct significant effect of switching barriers on customer loyalty indicates that a higher level of perceived switching barriers will generate a higher level of customer loyalty. This can be explained by the existence of the so-called spurious loyalty.

Based on this, the results suggest that mobile operators in Macedonia can apply alternative strategies in creating customer loyalty, i.e. the mobile service user could be retained by creating customer satisfaction or by setting switching barriers. It is valuable to note that the results of this research indicate that customer satisfaction has a stronger positive influence on creating customer loyalty than switching barriers. Truly satisfied customers will stay loyal regardless of the level of switching

barriers, demonstrating the existence of true loyalty. This means that customers are willing to do business with the company because the company inspires them, regardless of the level of switching barriers. Moreover, given the fact that the European Commission tends to introduce new consumer rights harmonised across Europe, switching activity is becoming easier and less problematic to be done. This is confirmed with the results of this research study since the mean values of switching barriers items (2.737 and 2.067) are lower than the mean values of other variables (ex. the average value of all customer satisfaction items are above 4.0) (Tab. 1).

Recommendations presented in this research contribute to a better understanding of customer loyalty in the mobile service market, providing strong suggestions for creating customer relationship strategies of the companies in this industry.

Despite the revealing outcomes of the research model, our study is subject to several limitations. First, instead of a non-probabilistic sampling method, a probabilistic sampling method should have been used in order to get more valid and credible results. Another notable important limitation of this study is that the focus of the research is on a single country which limits the generalization of the findings. The third issue relates to the issue of dealing with one industry setting which to a certain degree also limits the generalization of the findings.

In order to further develop the integrated approach of customer loyalty modelling, some additional concepts should be incorporated and examined, such as perceived value, price fairness, inertia, trust or behavioural and attitudinal customer loyalty should be investigated separately. Additionally, other switching barriers which were not examined in the present research (interpersonal relationships, attractiveness of competing alternatives and service recovery) should be introduced in future studies. In addition to this, future research studies focusing on a cross-cultural research and studies dealing with a multiple industry setting would be beneficial for enriching the knowledge about determinants of customer loyalty.

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## Abstract

**AN INTEGRATED MODEL OF CUSTOMER LOYALTY IN THE MACEDONIAN MOBILE SERVICE MARKET****Nikolina Palamidovska-Sterjadovska, Anita Ciunova-Shuleska**

*The main objective of this paper is to develop and test an integrated model of customer loyalty in the Macedonian mobile service market, analysing its determinants and their interrelationships and effects on customer loyalty. The proposed research model integrates service quality, customer satisfaction, switching costs and switching barriers as the main determinants of customer loyalty, further analysing their different effects (direct/mediating/moderating) on customer loyalty. Confirmatory factor analysis (CFA) is used in order to assess the validity of the measurement model, and the developed structural model is tested with structural equation modelling (SEM). The reported results indicate that the proposed research model as a whole has a satisfactory level of adequacy and most of the hypothesized relationships are confirmed. The results suggest that customer satisfaction partially mediates the relationship between service quality and customer loyalty and also service quality has a direct and positive effect on customer loyalty. The satisfaction-loyalty relationship is not mediated nor moderated by switching barriers, but switching barriers have a direct and positive effect on customer loyalty. The presented results would be of great importance for managers for the successful development of strategies for creating mobile service users' loyalty. The empirical evidence obtained in this study suggest that Macedonian mobile operators should have in mind alternative strategies in creating customer loyalty, emphasising the fact that customer satisfaction has a stronger positive influence in creating customer loyalty than switching barriers. The present research provides an integrated approach in examining customer loyalty and explores the different roles of switching barriers in the relationship between customer satisfaction and loyalty. In order to further develop the integrated approach of customer loyalty modelling, some additional concepts should be incorporated and examined in the future.*

**Key Words:** Customer loyalty, customer satisfaction, service quality, switching costs, switching barriers, mobile service market.

**JEL Classification:** M31.

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