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# CUSTOMER SEGMENTATION BY FACTORS INFLUENCING BRAND LOYALTY AND CUSTOMER INVOLVEMENT

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### **Abstract**

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Brand loyalty and customer involvement are two important concepts that help explain and understand a significant part of consumer shopping behavior. The aim of the present work is to identify factors influencing brand loyalty and customer involvement. A further aim is to consider subsequent segmentation of customers with respect to different degrees of brand loyalty and customer involvement. The research was focused on the field of Czech telecommunication services - mobile operators. Primary data were acquired through the method of questionnaire survey. In total, the questionnaire was completed by 340 respondents, of which 319 respondents owned their mobile phones for private purposes only. For more accurate interpretation of the identified factors the Exploratory Factor Analysis method was used. Four factors of brand loyalty were extracted, which account for 75 % of the variability of the original parameters: (1) Cognitive affective loyalty, (2) Trustworthiness, (3) Attitudinal loyalty and (4) Commitment and three factors of customer involvement were found to account for 71 % variability of the original parameters: (1) Social involvement, (2) Centrality, (3) Importance. High loyalty customers mostly have only one SIM card and 73 % of them use a tariff. In a further group of highly involved customers own from 80 % only one SIM card. This study forms part of a research programme investigating the influence of customer involvement on brand loyalty.

Keywords: Brand loyalty, customer involvement, consumer behavior, customer segmentation, service loyalty

### **INTRODUCTION**

Brand loyalty is a complex construct. As a result, there are many definitions that differ to a great extent. Tuominen (1999) defines brand loyalty as a positive attitude to a brand which leads to consistent buying of this brand over time. It is a result of customer realization that only a certain brand can satisfy their needs. By Sasmita (2014) is brand loyalty related to the users' repetitive buying behaviour over time with a positively biased emotive, evaluative and behavioural tendency towards a branded, labelled or graded alternative or product choice. There are different concepts of brand loyalty. First authors who focused on this issue were representatives of one-dimensional approach where loyalty is defined as a simple

repetition of shopping behavior (Cunningham, 1956; Farley, 1964). Behavioural definitions of brand loyalty represent repeat purchasing of a brand such as amount of purchases, frequency of purchase and amount of brand switching have been offered over a period of time. But behavioural loyalty alone is not enough to explain how various buying situations provoke buying the same brand by consumer (Esmaeilpour, 2015). Day (1969) extended the behavioral aspect of loyalty with a subjective factor and was thus the first representative of the theory of two-dimensional brand loyalty. Attitudinal loyalty refers to strong cognitive elements which influence affective loyalty. (Esmaeilpour, 2015). The theory of two-dimensional brand loyalty is also favoured by Rundle-Thiele and Bennett (2001). By Dick and Basu and Neal and Strauss in Liu et al. (2011)

have brand loyalty too attitudinal and behavioural dimensions. Worthington, Russell-Bennett and Hartel (2009) later divided the subjective dimension into cognitive and affective loyalty and they thus inclined to the three-dimensional concept of brandy loyalty. According to Worthington et al. (2009), brand loyalty is a combination of customers' thoughts and emotions about the brand which are subsequently expressed in actions. Oliver (1999) classifies customer loyalty into four stages according to intensity and suggests that loyalty is formed in a gradual way: from cognitive loyalty to affective loyalty, conative loyalty and action loyalty. A customer first becomes loyal in a cognitive way, while the final stage is action loyalty. In the first stage, loyalty is influenced by the quality of the brand and its features which indicate to the consumer that the brand is more advantageous than its alternatives. This stage is referred to as cognitive loyalty or loyalty based on brand image. This type of consumer loyalty is only superficial and its intensity is low. The second level of brand loyalty, i.e. affective loyalty, develops as satisfaction with the brand increases. This level of loyalty is sensitive to brand switching. According to Esmaeilpour (2015) affective loyalty also impacts on conative loyalty which cause customers' intentions or commitment in terms of some unique values associated with the brand. The following stage of loyalty, i.e. conative loyalty, is defined as a commitment or planned repeated purchase of a certain brand. The concept of multidimensional loyalty was researched by Dick and Basu (1994), Oliver (1999), Worthington, Russell-Bennett and Hartel (2009). Their theory suggests there are at least five loyalty dimensions: behavioral, attitudinal, cognitive, affective and conative loyalty. According to Sudhahar et al. (2006), loyalty should be, especially when it comes to services, defined as a multidimensional concept, since services are considered to be conceptions with many dimensions and each customer has a different degree of loyalty towards a service provider. Some authors (Baloglu, 2002; Bendapudi and Berry, 1997; Morgan and Hunt, 1994; Sudhakar et al., 2006; Alhabeeb, 2007) claim that trust and commitment should be included as loyalty dimensions.

When consumers learn about the brand and acquire new knowledge they combine with their experience, new cognitive structures are formed in their minds. These structures represent interpretation of the importance of a product or brand. The literature shows diverse words with slightly different meanings, such as: customer participation, user involvement co-development, partnership, customer integration, customer engagement or customer desired role (Dadfar and Brege, 2016). But in most literature dealing with consumer behaviour, they are referred to as customer involvement or engagement. Definitions of customer involvement differ with each author, this term is most often explained as a degree of intensity or interest a buyer exhibits towards a certain

product or brand (Park and Young, 1983). Tih (2016) et al. define customer involvement as the amount of communication, interaction, participation and collaboration between customers, users or channel members and a company. According to Pascale and Ai Lin Lim (2003), engagement is conceived as customer identification with a brand and the concept of customer involvement is based on the MIS (modified involvement scale) model, tested by Kyle et al. in 2007. The MIS model is a modification of the CIP (consumer involvement profile) model engineered by Laurent and Kapferer in 1985, which comprises four dimensions: attraction, centrality, social bonding and self-expression. Attraction researches to what extent a product or service satisfies customer's objectives. Centrality assesses how a product or service relates to a customer's lifestyle and personality. Social bonding describes involvement of the product or services in customer's social bonds. The self-expression dimension expresses the correlation between the product's identity and individual's identity.

Some researchers suggest that customer engagement may influence brand loyalty (Quester and Lim, 2003; Celsi and Olson, 1988; Iwasaki and Havitz, 1998; Park and Young, 1986; Traylor, 1981). The main idea common for these researches is that consumers who are more involved with a certain brand are more obliged and thus more loyal. A repeated purchase with high degree of engagement is another indicator of brand loyalty, whereas a repeated purchase with low engagement is usually mere shopping behavior.

### **MATERIALS AND METHODS**

A quantitative survey was conducted from January 2016 to March 2016 focusing on the telecommunications services in the Czech Republic. The sample group consisted of 340 users of Czech telecommunications services. Primary data were collected using questionnaires distributed electronically. The questionnaire was divided into four parts. The first part was aimed at gathering general data about mobile operators and services used. The second part focused on investigating the rate of respondents' agreement with statements describing factors of brand loyalty (22 statements). The third part of the questionnaire investigated their agreement with statements characterising factors of customer involvement (14 statements). Respondents' opinions were measured with their agreement with statements ranging from "strongly disagree" to "strongly agree". The last part of the questionnaire gathered socio-demographic data on respondents such as sex, age, education and region. The questionnaire was fully anonymous and the respondents were ascertained that the data were intended exclusively for the purposes of this research and should not be disclosed to a third party. The data were collected only from 318 respondents who own a private mobile phone. 22

respondents who only have a mobile phone for company purposes were referred to the end of the questionnaire via a filter question, so that the research results would not be distorted. Out of 318 respondents who have at least one mobile phone for private purposes, 61.4% were women (195) and 38.6 % (123) were men. Most respondents were in the age group between 18 and 25 (on total 132 – 41.5 %). 196 respondents were from Bohemia, 86 from Prague and 36 from Moravia. 4% of respondents had primary education, 8% of respondents had secondary education without graduation exam. More than a third of the respondents had secondary education with graduation exam (35 %). More than a half of the respondents (52 %) graduated from a vocational school or university.

loyalty Construct Brand is based multidimensional loyalty and it is composed of seven factors. Five factors (behavioral, attitudinal, affective and conative combines theoretical bases of research by authors Worthington, Russell-Bennett and Hartel (2009), Dick and Basu (1994) and Oliver (1999). According to authors Baloglu, (2002), Bendapudi and Berry (1997), Morgan and Hunt (1994) Sudhakar et al., (2006) and Alhabeeb, (2007) the construct Brand Loyalty contains factors Trust and Commitment because the service area was chosen. Construct Customer product involvement is based on modified involvement scale (MIS) which was tested by Kyle et al. in 2007. According the MIS model construct includes four factors: attraction, centrality, social bonding and self-expression.

Factors influencing brand loyalty and customer involvement are based on results of an exploratory factor analysis. Both constructs were tested from the perspective of their suitability for a factor analysis using the Kaiser-Maier-Olkin test (hereinafter referred to as the "KMO"). The KMO coefficient is within the range between 0 and 1, and its value should exceed 0.6. In this research, the value of the KMO in the construct of brand loyalty scored 0.910, which can be assessed as "excellent" and in the construct of customer involvement 0.877, which can be assessed as "praiseworthy". Latent factors were extracted using the principal component analysis, factor rotation was performed using the Varimax rectangular method. The number of factors was chosen so that eigenvalues were higher than 1. The exploratory factor analysis was conducted in the IBM SPSS 20 statistic application. In order to be able to classify variables characterising different customer segments on the basis of brand loyalty and customer involvement, were carried out a cluster analysis using K-means clustering. As a basis for K-means clustering, the factors were extracted by using an exploratory factor analysis. When conducting K-means clustering, it is necessary to predefine a number of resulting clusters, which is why the process was performed three times in order to achieve ideal results: for three, four and five clusters. In both cases the best values were achieved with four resulting clusters. Fisher's test scored for all components values many times higher than 1, which confirmed the suitability of K-means clustering.

### **RESULTS**

### A) Used services

Out of 340 respondents, 318 own at least one mobile phone for private purposes and 22 respondents have a company mobile phone only. 246 respondents (72.4%) have a mobile phone for private purposes only. 72 respondents (21.1 %) have a mobile phone for private purposes as well as a company mobile phone. 85.9 % (273) of respondents have only one SIM card, 12.5 % (40) of respondents has two SIM cards. Only 1.6 %, which is 5 respondents, has more than 2 SIM cards. The most frequently used mobile operators were T-Mobile -32.6 % (104 respondents), O2 – 31 % (99 respondents) and Vodafone - 31 % (99 respondents). Other 5 % of respondents (16 people) use services of virtual mobile operators. 79.3 % (252) of respondents use a tariff, 20.7 % of respondents (66) have a pre-paid card or "recharge their credit". Almost a half of the respondents (72.4 %, 230 users) do not use any other service from the mobile operator they use most often. Remaining 27.6 % of respondents use other services that typically include the internet (95.4%), fixed telephone line (11.5 %), television or satellite (10.3 %).

# B) Factors influencing brand loyalty and customer involvement

In the construct "Brand Loyalty" there was a change in the factor structure. Seven original factors – Behavioural loyalty, Attitudinal loyalty, Cognitive loyalty, Affective loyalty, Conative loyalty, Trust and Commitment – were substituted with four new components – (1) Cognitive-affective loyalty, (2) Trust, (3) Attitudinal loyalty and (4) Commitment. These four components have factor loadings between 0.550 and 0.819 and they cumulatively explain 75.106 % variance. The factor loads are represented in the Table I.

The first component (1) Cognitive-affective loyalty contains medium to high factor loadings (0.550-0.816). It is composed of 10 variables and explains 28.662 % of total variability of the set of variables. Component (1) Cognitive-affective loyalty links two variables from the original factor Behavioural loyalty, five variables from the original factor Cognitive loyalty and three variables from the original factor Affective loyalty. Second component (2) Trust composed of 6 variables explains 23.454 % variability of original variables and exhibits medium to high factor loadings (0.673-0.819). It contains the whole original factor Trust and also one variable from the original factor Behavioural loyalty, one factor from the original factor Cognitive loyalty and one variable from the original factor Affective loyalty. Third component (3) Attitudinal loyalty is composed

I: Rotated Component Matrix - Brand loyalty

	Component					
	1	2	3	4		
BEH_1	,679	,362		,367		
BEH_2	,613	,673				
BEH_3	,550	,484	,356			
ATL_1	,398		,642	,476		
ATL_2	,437	,363	,579			
COG_1	,751			,300		
COG_2	,714		,400			
COG_3	,710					
COG_4	,650	,461				
COG_5	,603	,470	,334			
COG_6		,701				
AFL_1	,655	,549				
AFL_2	,355	,726	,413			
AFL_3	,816	,353				
AFL_4	,677	,307	,376			
CON_1	,359		,372	,673		
CON_2			,807	,340		
TRU_1	,434	,750				
TRU_2		,819		,346		
TRU_3	,327	,769				
COM_1			,352	,798		
COM_2	,439	,327		,715		

Source: own calcutalions, 2016

of three variables, contains the whole original factor Attitudinal loyalty and one variable from the original factor Conative loyalty. The component explains 12.343 % variability from the original construct and contains medium to medium factor loadings (0.642–0.807). The fourth component (4) Commitment contains medium factor loadings (0.673-0.798) and explains 11.94% variability from the original variables. This component is composed of three variables, contains the whole original factor Commitment and one variable from the original factor Conative loyalty. On the basis of the variable included, components influencing brand loyalty were named and characterised in the following way: (1) Cognitive-affective loyalty describes perceived advantages, features and quality of services, growing satisfaction with the brand and repeated purchase of the brand in the future. (2) Trust indicates customer trust in the brand, its employees and recommending the brand to others. (3) Attitudinal loyalty is expressed with preference of the brand in case of a change in price or services offered. (4) Commitment is the intention to continue with the brand in the

In the construct Customer involvement there has been a reduction to the factor structure of the four original factors – Attraction, Centrality, Social bonding, Self-expression – to three new components – (1) Social involvement, (2) Centrality, (3) Importance. The factor loads are listed in the following table.

The first component (1) Social involvement is characterised with medium to high factor loadings. It is composed of 8 variables and explains 50.1 % of variability of the original variables. This component

II: Rotated Component Matrix - Involvement

	Component				
	1	2	3		
ATR_1	0,317	0,693	0,315		
ATR_2		0,843			
ATR_3	0,823	0,363			
ATR_4		0,317	0,551		
CEN_1		0,859			
CEN_2			0,902		
CEN_3	0,325	0,808			
SOB_1	0,517	0,49			
SOB_2	0,592	0,553			
SOB_3	0,83				
SOB_4	0,879				
SFE_1	0,635		0,524		
SFE_2	0,861				
SFE_3	0,649	0,333			

Source: own calculations, 2016

contains the whole original factor Social bonding, the whole original factor Self-expression and one variable from the original factor Attraction. Second component (2) Centrality is characterised with medium to high loadings. It contains four variables - two from the original factor Attraction and two from the original factor Centrality. In total, this component explains 12.1% of variability of the original variables. Third component (3) Importance contains two variables and explains 8.8 % variability of the original variables. Factor loadings range from medium to high. One variable belongs to the original factor Attraction, second variable belonged to the original factor Centrality. On the basis of the variables contained, the components influencing customer involvement were named and characterised in the following way: (1) Social involvement: social bonding between a customer and social groups via the service (telephoning), the degree to which an individual identifies with the image of the mobile operator, following information about the mobile operator. (2) Centrality – expresses to what extent an individual's life style relates to the product – whether telephoning is important and/or entertaining for the customer and how much time a customer spends telephoning. (3) Importance expresses how a mobile operator is important to the customer and whether such a customer would have to think hard when considering switching to another operator.

### C) Customer segmentation

As a basis for K-means clustering, were used components extracted by the exploratory factor analysis. Using a cluster analysis, were identified four segments of Czech users of mobile phones with a various degree of brand loyalty and four segments of Czech users of mobile phones with a various degree of customer involvement. These segments are defined according to characteristics describing components of brand loyalty and customer involvement. The results of dispersive

analysis in the following table show that the Fisher test for all variables of construct Brand loyalty is much higher than 1 and is significant. It points to the the appropriateness of using cluster analysis. The biggest influence on the formation of clusters by brand loyalty have variables (2) Trust and (3) Commitment.

In segmentation of the levels of brand loyalty were identified following four segments: Highly loyal customers (cluster 3) – they perceive the mobile operator whose services they use as "their" mobile operator, they prefer this operator to other mobile operators, claim they will continue using its services also in the future and they would recommend it to others. Highly loyal customers have mostly only one SIM card and 73 % of them use a tariff.

Medium loyal customers (cluster 1) - they display trust in their mobile operator, they intend to continue using its services. Less loyal customers sensitive to price change (cluster 4) - they think that the services of the mobile operator they use do not correspond with the quality and price they pay for them, in case of a change to the service or price they would switch to another mobile operator, they would not recommend this mobile operator to others. Non-loyal customers (cluster 2) - they display the lowest values of brand loyalty, they do not consider the brand of a mobile operator important, when choosing new services, they would not favour the current mobile operator, in case of a change to the services or price they would switch their mobile operator.

According to the analysis of variance (shown in the table below) is evident that the model is suitable compared to the Fisher test, because all F values are much higher than 1. Model is also significant because all Sig. values are lower than 0.05. In forming clusters has no component compared to others significant impact.

III: Results of Dispersion Analysis – Brand Loyalty

		A	ANOVA			
	Cluster		Erro	r		
	Mean Square	df	Mean Square	df	- F	Sig.
Cognitive-affective loyalty	36,763	3	,445	267	82,622	,000
Trust	61,979	3	,349	267	177,548	,000
Attitudinal loyalty	13,991	3	,755	267	18,528	,000
Commitment	52.917	3	.318	267	166.622	.000

Source: own calcutalions, 2016

IV: Results of Dispersion Analysis - Involvement

ANOVA						
	Cluster		Error		- F	0:-
	Mean Square	df	Mean Square	df	- г	Sig.
Social involvement	52,708	3	,385	262	137,054	,000
Centrality	59,629	3	,330	262	180,717	,000
Importance	45,604	3	,476	262	95,715	,000

Source: own calculations, 2016

In the segmentation by level of customer involvement has been identified these four segments: Highly involved customers (cluster 1): calling is important to them, and gives them the opportunity to be in touch with their friends. They like the image of their mobile operator and it is important to them. They would have to think carefully about the change of their mobile operator. They watch information about the mobile operator in the press, on the internet and social networks. 80 % of them own only one SIM. Medium involved customers (cluster 4) – for these customers calling is fun and important, but they do not identify themselves with the image of the mobile operator. Low involved customers (Cluster 2) - these customers are rather passive, they do not watch information about their mobile operator and do not considered mobile operator's image as a part of themselves. Not involved customers (Cluster 3) these customers have the lowest level of customer involvement, they do not call often and do not consider calling as a fun, in their life calling does not play an important role.

#### **DISCUSSION**

The concept Brand loyalty is based on multi-dimensional attitude to brand loyalty that is discussed by several authors in their studies (Dick and Basu, 1994; Oliver, 1999; Worthington, Russell-Bennett and Hartel, 2009). According to these studies, brand loyalty is composed of at least five factors: behavioural loyalty, attitudinal loyalty, cognitive loyalty, affective loyalty and conative loyalty. Since the research was carried out in the field of services, these dimensions were complemented with trustworthiness and commitment factors. Primary research and future factor analysis yielded four new latent factors (1) Cognitively affective loyalty, (2) Trustworthiness, (3) Attitudinal loyalty, (4) Commitment. Factor analysis led to joining behavioural, cognitive and affective loyalty. According to Oliver, (1999) brand loyalty is composed of four successive stages of loyalty, the first two being cognitive and affective loyalty, which resulted into merging of two first Oliver's factors. Oliver (1999) asserts that the first level of cognitive loyalty is only low and superficial, which might be the reason why this factor joined the second level of loyalty. Attitudinal loyalty separated as an independent factor. In expert literature, attitudinal loyalty is usually linked with behavioural loyalty: this concept is referred to as two-dimensional brand loyalty or behavioural-attitudinal loyalty. As behavioural loyalty merged with cognitively affective loyalty and attitudinal loyalty singled itself out, this theory was not confirmed in the case of Czech telecommunication services. What confirmed is the assertion made by Baloglu (2002), Bendapudi and Berry (1997), Morgan and Hunt (1994), Sudhakar et al. (2006) and Alhabeeb (2007), i.e. that trustworthiness and commitment is to be considered individual factors. Trustworthiness was complemented with three statements from the factor affective, behavioural and cognitive loyalty. Commitment was complemented with one statement from conative loyalty. However, Olivera (1999) defines conative loyalty as a commitment or repeated purchase of a specific brand. This is probably the reason why this statement joined the factor "commitment". The concept of customer involvement is based on the modified model of customer involvement, tested in 2007 by Kyle et al. This model contains four factors of customer involvement: attraction, centrality, social bonding and self-expression. Using factor analysis, we reduced the model to three components: Social involvement (1), Centrality (2) and Importance (3). According to Kyle and Chick (2002), social components should be separated from centrality into an independent factor. Separating social components from centrality confirmed, but social bonding merged with self-expression. Self-expression describes to what extent it expresses the customer's "self". All social aspects of customer involvement were thus merged. By merging one statement from attraction with one statement from centrality led to creating factor importance, since both statements assess the importance of the service to a customer. Importance was included in the original CIP model designed by Laurent and Kapferer in 1985. According to these authors, importance expresses an individual's interest in a category of products or services and his/her personal importance or significance. The remaining two statements from centrality were complemented with the remaining two statements from factor attraction. Since all of these statements assess to what extent and in what aspects of an individual's life the chosen service occurs, we kept the name centrality. As a part of cluster analysis, we identified four segments of customers according to their brand loyalty: highly loyal customers, medium loyal customers, less loyal customers sensitive to price and disloyal customers. The segment highly loyal customers is characterised by customers perceiving their mobile operator as "their" operator, they prefer it to other mobile operators, see it as number one and would also recommend it to others. According to these characteristics, the segment of highly loyal customers corresponds with Aaker's segment "committed customers", which is on the top of Aaker's customer pyramid. Aaker (2013) defines them as truly loyal customers for whom a brand is a part of their personality. The less loyal segment of customers sensitive to price is identical with Aaker's segment of "price sensitive", who – according to Aaker (2003) – decide about purchase of a product or service according to the price. Segmentation of customers using telecommunication services was also in the focus of Kuusik (2007), whose engagement segment, also referred to as emotionally loyal customers, corresponds with its characteristics to the newly formed segment of highly loyal customers. Kuusik (2007) defines this segment in the

following way: active customers using services of a certain provider who claim they will continue using its services also in the future and recommend this provider to others. In the case of disloyal customers, Kuusik (2007) distinguishes between so-called "reducers" and "leavers". Leavers correspond with their characteristics with the cluster of disloyal customers, as they also declare that in case of a change to prices they would leave their mobile operator. During the cluster analysis we created four clusters which corresponded with various degree of customer involvement, in other words: four groups of customers were divided according to the strength of their relation to the mobile operator. In their works, authors only distinguish between purchases with a low degree of involvement and purchases with a high degree of engagement (Sengupta, Goodstein and Boninger, 1997), but not directly between different degrees of customer involvement.

The results of the research may be limited by given a sample. In order to ensure the best representing results of the interpreted research data – regarding to the representativeness of the sample in relation to the population that the sample closely matches sociodemographic distribution customers of Czech mobile operators – authors are working with statistical evaluation method using crossover weights (a combination of selected sociodemographic variables – age, sex, education, permanent residence). With extracting factor and cluster analysis it has been used for the weighted data.

## **CONCLUSION**

The results show that 85.9 % of respondents use only services from one mobile operator. Most respondents (79.3 %) use a tariff, while only 27.6 % of customers buy from the same mobile operator another service. These services usually include the internet, fixed telephone line and TV or satellite. An exploratory factory analysis determined four factors influencing brand loyalty. The highest percentage of variability of the original variables is explained by the first component Cognitive-affective loyalty, which includes advantages perceived by the customer, features and quality of the services, growing satisfaction with the brand and repurchasing of the brand in the future. Attitudinal loyalty investigates brand preference in case of a change to price or services offered. Commitment and Trust were separated as two independent factors, which confirmed previous results of some authors. Customer involvement contains three components instead of four original ones. The component Social involvement explains 50 % variability of the original variables, describes an individual's identification with the image of the mobile operator, whether customers follow information about their mobile operator and customer's social bonding through the service (telephoning). The component Centrality was also contained in the original concept. This dimension expresses how a given service relates to a customer's lifestyle. The last extracted factor Importance indicates how hard customers would have to think when considering changing a mobile operator and whether it is important for them which mobile operator they use. The components extracted by the factor analysis were used in the cluster analysis for customer segmentation according to different levels of brand loyalty and customer involvement using K-means clustering. Highly loyal customers prefer their mobile operator to other mobile operators and would recommend its services to others and they claim they will continue using services of this mobile operator also in the future. Trust in a mobile operator declines together with brand loyalty, disloyal customers do not consider the brand in telecommunication services important, in case of a change to price or services they would switch their mobile operator and when choosing new products or services they would not prefer their current mobile operator. There has been found a similarity of the segments with Aaker's and Kuusik's segmentation. Highly involved customers are those who like the image of their mobile operator, follow information about it in media and they find telephoning important and entertaining. In the case of uninvolved customers, telephoning plays no important role. Highly loyal and involved customers own only one SIM and use a tariff. In the follow-up research will be investigated the influence of customer involvement on brand loyalty, as previous studies proved that customer involvement may have positive impact on brand loyalty.

### **REFERENCES**

- ALHABEEB, M. J. 2007. On consumer trust and product loyalty. *International Journal of Consumer Studies*, 31(6): 609–612.
- BALOGLU, S. 2002. Dimensions of customer loyalty: separating the friends from the well Wishers. *Cornell Hotel and Restaurant Administration Quarterly*, 43(1): 47–59.
- BENDAPUDI, N., BERRY, L. 1997. Customer's motivations for maintaining relationships with service providers. *Journal of Retailing*, 73(1): 15–37.
- CELSI, R., L., OLSON, J., C. 1988. The Role of Involvement in Attention and Comprehension Processes. *Journal of Consumer Research*, 15(2): 210–24.
- CUNNINGHAM, R., M. 1956. Brand Loyalty what, where, how much? *Harward Business Review*, 34(1): 116–128.
- DADFAR, H., BREGE, S. 2013. Customer involvement in service production, delivery and quality: the challenges and opportunities.

- International Journal of Quality & Service Sciences, 5(1): 46–65.
- DAY, G., S. A. 1969. Two-Dimensional Concept of Brand Loyalty. *Journal of Advertising Research*, 9(3): 29–35.
- DICK, A., S., BASU, K. 1994. Customer loyalty: Toward an integrated conceptual Framework. *Journal of the Academy of Marketing Science*, 22(2):99–133.
- ESMAEILPOUR, F. 2015. The role of functional and symbolic brand associations on brand loyalty. A study on luxury brands. *Journal of Fashion Marketing & Management*, 19(4): 467–484.
- FARLEY, J., U. 1964. Why Does Brand Loyalty Vary Over Products? *Journal of Marketing Research*, 1(4): 9–14.
- IWASAKI, Y., HAVITZ, M. 1998. A path analytic model of the relationships between involvement, psychological commitment and loyalty. *Journal of leisure research*, 39(2): 256–280.
- KYLE, G., ABSHER, J., NORMAN, W., HAMMIT, W., JODICE, L. 2007. A Modified Involvement Scale. *Leisure Studies*, 26(4): 399–427.
- LAURENT, G., KAPFERER, J., N. 1985. Measuring Consumer Involvement Profiles. *Journal of Marketing Research*, 22(1): 41–53.
- LIU, F., LI, J., MIZERSKI, D., SOH, H. 2012. Self-congruity, brand attitude, and brand loyalty: a study on luxury brands. *European Journal of Marketing*, 46 (7/8): 922–937.
- MORGAN, R., M., HUNT, S., D. 1995. The Commitment Trust Theory of Relationship marketing. *Journal of Marketing*, 58(3): 20–39.

- OLIVER, R., L., 1999: Whence Customer Loyalty? *Journal of Marketing*, 63(4): 33–44.
- PARK, C., W., YOUNG, S., M. 1986. Consumer Response to Television Commercials: The Impact of Involvement and Background Music on Brand Attitude Formation. *Journal of Marketing Research*, 23(1): 11–24.
- QUESTER, P. LIM, A., L. 2003. Product involvement/brand loyalty: is there a link? *Journal of Product & Brand Management*, 12(1): 23–36.
- RUNDLE-THIELE, S., BENNETT, R. 2001. A brand for all seasons? A discussion of brand loyalty approaches and their applicability for different markets. *Journal of Product and Brand Management*, 1(10): 25–37.
- SUDHAHAR, J., C., ISRAEL, D., BRITTO, A., P., SELVAM, M. 2006. Service loyalty measurement scale: A reliability assessment. *American Journal of Applied Sciences*, 13(4): 1814–1818.
- TIH, S., WONG, K., LYNN, G., S., REILLY, R., R. 2016. Prototyping, customer involvement, and speed of information dissemination in new product success. *Journal of Business & Industrial Marketing*, 31(4): 437–448.
- TRAYLOR, M., B. 1981. Product Involvement and Brand Commitment. *Journal of Advertising*, 21(6): 51–56.
- TUOMINEN, P. 1999. Managing Brand Equity. *LTA*, 1/99: 65–100.
- WORTHINGTON, S., RUSSELL-BENNETT, R., HARTEL, CH., E., J. 2009. A tridimensional approach for auditing brand loyalty. *Journal of Brand Management*, 17(4): 243–253.