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The relations between customer engagement, perceived value and satisfaction: the case of mobile applications

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Abstract

The main purpose of the paper is to reveal theoretically the relations between customer engagement, customer perceived value and satisfaction and to test them empirically in the case of mobile applications. Based on literature analysis, relations between customer engagement, perceived value and satisfaction have been revealed. The quantitative research (survey) has been chosen in order to meet the purpose of the research and to test those relations empirically. The results of empirical research confirm the existence of relationships between all three constructs, however it was determined that cognitive dimension of customer engagement does not have impact on perceived value, and satisfaction has impact on customer engagement in the case of mobile apps, but findings can't prove that reverse impact exist.

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Introduction

Despite the abundance of various research on the topic, customer engagement into value creation still remains an important object of both scholars and practical research. Ability to engage customers is acknowledged as an important tool for companies seeking to create long-term sustainable business relationships and enhancing future consumption (Kumar, Aksoy, Donkers, Venkatesan, Wiesel, & Tillmanns, 2010; Brodie & Hollebeek, 2011; Vivek, Beatty, & Morgan, 2012; Bakanovė, 2013). Notwithstanding, there is still a lack of consensus in the scientific literature regarding the antecedents and consequences of the customer engagement. For example, according to

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Rajah, Marshall, and Nam (2008), Mollen and Wilson (2010), Hollebeek (2013), Brodie, Ilic, Juric, and Hollebeek (2013), customer engagement driving by particular circumstances leads to higher perceived customer value and better satisfaction, when Kim, Kim and Wachter (2013) in addition suggest that satisfaction with services is one of the main factors, which influence customer intentions to engage into value creation. The latter notion was also supported by the research of Dong, Evans and Zou (2008), who argues that in order to engage customer in service recovery activities, first of all customer role clarity, perceived value and customer satisfaction should be improved. Moreover customer engagement is being conceptualized in scientific literature as a context specific phenomenon (Hollebeek, 2011; Brodie et al., 2013). It was found out that the expression of particular customer engagement dimensions depends on the subjects of engagement (i.e., who is engaged) and the context, defined by the specific circumstances (Brodie, Hollebeek, Juric, & Ilic, 2011). So various research on this topic in different service settings and different countries are necessary in order to know customer engagement phenomenon in more detail. Taking into account above mentioned, this paper seeks to find the answer to the following question: What are the relations between customer engagement, customer perceived value and customer satisfaction in the mobile environment? Thus the main purpose of the paper is to reveal theoretically the relations between customer engagement, customer perceived value and satisfaction and to test them empirically in the context of mobile environment. In order to reach the goal systematic and comparative analysis of scientific literature has been performed and quantitative research method – survey – has been chosen for the empirical research.

1. Literature review

It is acknowledged that customer engagement plays important role in long-term business relationships, "where other relational concepts act as specific engagement antecedents and/or consequences" (Brodie et al., 2011, p. 6). The importance of customer engagement for marketing decisions was stressed by Van Doorn, Lemon, Mittal, Nass, Pick, Pirner, and Verhoef (2010), who suggested customer engagement behavior could be a "useful framework for classifying and segmenting customers, based on their propensity to engage and the types of engagement behaviors they display" (Van Doorn et al., p.263). However the peculiarities of customer engagement behavior differ in various business fields due to context-dependent nature of this phenomenon and due to various approaches to it.

There are different conceptualizations of the customer engagement phenomenon in scientific literature. Vivek et al. (2012) after throughout analysis of various research on this topic distinguishes two perspectives of its interpretation: 1) from practitioners point of view customer engagement is being understood as activities facilitating repurchase behavior and strengthening customer commitment to a brand; 2) from academic point of view customer engagement could be treated as a measure of intensity of participation with organization and other customer in a mutual knowledge exchange process.

Mollen and Wilson (2010) argues that there are three main themes related to customer engagement, i.e. mental state along with active and sustained cognitive processing; assurance of instrumental and experiential value; emotional bonding, pleasure and satisfaction. Similar suggestions regarding customer engagement conceptualization have been made by Cheung, Lee, and Jin (2011). According to them there are three possible ways to treat customer engagement, i.e. as a process, as a behavioral manifestation and as psychological state (Cheung et al., 2011). The interpretation of engagement may vary depending on actors, i.e., subjects (e.g. customers, students, employees) and objects (e.g. brand, service, course, mobile application) of engagement (Brodie et al., 2011). However the performed analysis of recent scientific literature showed that customer engagement should be treated as a multidimensional construct and despite variety of its dimensions identified by various researchers in different fields all of them can be grouped into three main dimensions (cognitive, emotional, and behavioral) in accordance with suggestions made by Macey and Schneider (2008), and Brodie et al. (2011; 2013). Kim et al. (2013) in their study of mobile user engagement identified cognitive, affective and conative stages of user engagement; those correspond respectively to above mentioned cognitive, emotional and behavioral dimensions. Expression of those dimensions determines different level of customer engagement in the particular context of the research leading to different outcomes.

Based on Brodie et al. (2011; 2013) the consequences of customer engagement could be customer perceived value, satisfaction, trust, commitment and loyalty. All of them are the main measures of sustainable customer relationships as well. In this paper, referring to the purpose of the research, we focus only on two of them – perceived customer value and satisfaction.

Customer value is the basis for all marketing decisions. Analysis performed by Gummerus (2013) and Khalifa (2004) revealed that customer value is a complex, context specific phenomenon, which still requires attention from the researchers. Customer perceived value in marketing literature is being analysed twofold: as a ratio between customer's value received and cost experienced when purchasing and/or using service/product (e.g., Petrick, 2002; Wang et al., 2004; Smith & Colgate, 2007) or as a multidimensional construct incorporating various customer perceived value dimensions (e.g., Sweeney & Soutar, 2001; Smith & Colgate, 2007; Park & Ha, 2015). The number of dimensions and their expression depend on the research context and on the purpose of the researcher. For example, Miladian and Sarvestani in the context of virtual communities analysed functional, social and emotional value, meanwhile Prebensen et al. (2012) distinguished functional, social and epistemic value in tourism sector, when Park and Ha (2015) stressed the importance of utilitarian and hedonic value in the context of hotel industry. Miladian and Sarvestani (2012) found out that the effect of the emotional and social value dimensions on members' of virtual communities purchase intentions is more significant as compared to the functional value, "since digital items are more hedonic in nature and possess a high level of symbolic meaning…" (Miladian & Sarvestani, 2012, p. 225).

In this paper, relying on literature analysis performed and taking into account the research context, four dimensions of customer perceived value, i.e. social, functional, epistemic and emotional value dimensions are analysed. Functional, social and emotional dimensions have been generally analysed in different contexts by various researchers and are described further in accordance with Smith and Colgate (2007). Functional value is related to the extent to which a product or service is useful due to its characteristics, desired functions, reliability, performance quality, effectiveness, etc.). Social value – relational or network benefits, connectedness, personal interaction, developing trust or commitment, and responsiveness; it also may include self – image. Emotional value could be described by the extent to which a product creates appropriate feelings and emotions for the customer (e.g., aesthetics, pleasure, fun, excitement, adventure, etc.). In the context of mobile environment epistemic value, as identified by Wang, Liao, Yang (2013), should be analysed as well. Epistemic value deals with a curiosity provided by product/service, novelty and desire for knowledge, finding out new content, testing new services, i.e. "value from learning new ways of doing things" (Wang et al., 2013, p.14).

It is acknowledged in scientific literature that customer perceived value leads to customer satisfaction, which in turn is the main antecedent of long-term customer relationships (Egan, 2011). In the mobile-service context satisfaction as a driver of customer intentions was highlighted by Revels, Tojib, and Tsarenko (2010), while satisfaction in their study was influenced by perceived usefulness, perceived ease of use, and perceived enjoyment.

Analysing relations between customer engagement, perceived value and satisfaction it can be stated that the majority of researchers (e.g., Mollen & Wilson (2010), Hollebeek (2013), Brodie et al., 2013) consider customer perceived value and satisfaction as the consequences of customer engagement. According to Kim et al. (2013) engagement in mobile technology and its omnipresent service leads to perceived value and satisfaction, which leads to future customer loyalty (Kim et al., 2013). This statement was supported by Rajah et al. (2008), who argued, that co-creation via active customer participation, interaction and personalization can influence customer satisfaction, which, along with such factors as trust, strengthens relationships between the company and customer. However in their mobile user engagement (MoEN) model Kim et al. (2013) identified and supported by the empirical research the existence of the reverse relations: the better customer is satisfied with product/service, the more likely he is intended to engage into value creation. This kind of relations between customer engagement and satisfaction was also supported by the research of Dong et al. (2008). Relying on the diversity of various research results the reciprocal relations between customer engagement and satisfaction will be examined in the empirical part of this paper.

The case of mobile applications (apps), selected for the empirical research, is one of those, where customer engagement is one of particular importance. Apps developers work in highly competitive markets, where number of apps rapidly increases, but the margins per sales are very low (Lim, Bentley, Kanakam, Ishikawa, & Honiden, 2015). Besides, it was found out that 400,000 out of 600,000 apps in the iOS App Store have never been downloaded, and 80 percent of paid Android apps received less than 100 downloads (Lim et al., 2015, p.40). Moreover Sterling (2014), presented report from Forrester Research on US and UK users of smartphones, which states that there are about 24 apps per month used by each of the user, but only five of those apps gets more than 80 percent of time

spent using apps, i.e. "consumer app time is concentrated in just a few popular apps" (Sterling, 2014). In that kind of situation decisions of customer attraction and retention become extremely important. However the recent research shows that there are no any universal decisions to achieve it. Lim et al. (2015) conducted extended worldwide survey of mobile app users; surveying 10,208 users from more than 15 countries. The results of their research showed that app user behavior differs significantly across countries (Lim et al., 2015, p.62). Thus, context specific decisions should be developed in order to create useful and engaging apps, satisfying customers, who, according to Sterling (2014) report, spend more time with mobile apps than the PC internet and TV. This paper seeks to contribute to this gap of knowledge by exploring relations between customer engagement, perceived value and satisfaction in the case of mobile apps.

2. Methodology

Based on systematic and comparative analysis of scientific literature the reciprocal relations between customer engagement and their satisfaction have been revealed. The quantitative research method (survey) has been chosen in order to meet the purpose of the research and to test those relations empirically in the case of mobile apps.

The survey was conducted employing nonprobability sampling, sending invitations to participate in the survey via emails, Facebook, trying to reach persons receptive to new technologies, who use smart phones, tablets in their daily life. Geographical boundaries were limited to Lithuania territory. 205 respondents took part in the survey (196 valid questionnaires were taken for further analysis). In total 126 (64.3 %) women and 70 (35.7 %) men took part in the survey. The majority (50 %) of all the respondents belongs to the age group of 19 – 24 years, 26% - younger than 18 years old and the remaining 24% were older than 25 years.

The employed questionnaire consists of two main parts: the first one is dedicated to reveal the portrait of mobile apps users, the second one comprises three main blocks related to three main constructs of the research, i.e. customer engagement, customer perceived value and customer satisfaction. A scale confirmed by Cheung et al. (2011) was adapted for customer engagement with mobile apps measurement, using for this purpose 11 items (behavioural dimension – 4 items, emotional dimension – 4 items and cognitive dimension – 3 items). Customer perceived value were measured in accordance with Wang et al. (2013) recommendations using in total 12 items (3 items for each customer perceived value dimension). Finally, customer satisfaction construct was adapted from Kim et al. (2013), using two items for the analysis. The items of those constructs were measured employing five point Likert scale.

In order to reveal the relations between the three constructs the statistical data analysis using SPSS 22.0 were performed; Spearman correlation and regression analysis were employed. Cronbach alpha coefficients were considered as acceptable for all the subscales (0.700-0.718 for subscales of customer engagement dimensions, 0.739 for customer perceived value (after second-order factor analysis), and 0.643 for satisfaction).

3. Results

Seeking to characterize mobile application users, it was found out that 60 % of men and 57.1 % of women usually download 1-3 mobile apps per week, while 4-8 mobile apps per week were downloaded by 25.7 % of men and 22.2 % of women respectively. Such results are related to those presented in ComScore (2014) report, where US mobile user's behavior was analyzed. In US mobile apps users download on the average 4-7 apps per month, more men than women as well, however they are more intended to pay for apps, than Lithuanian respondents, who (even 81 %) prefer to download apps free of charge. The most popular apps between users of the youngest age group are apps of social networks (Facebook, Instagram, Snapchat), photo editors (Pix, Photox) apps, games. The results show that the most frequent users of apps are in age group of 19-24 years and in addition to above mentioned apps they prefer apps of news portals (15min., lrytas, delfi), apps for studies (FirstClass), apps for listening to music. Respondents older than 25 years pointed out apps created for young families (e.g., Manomazylis), apps of financial services (e.g., Swedbank, DNB), e-shops apps (e.g., Autoplius, Vinted), software (paid) apps, GPS etc.

The Spearman correlation analysis of research results revealed that the statistically significant relationships between separate customer engagement dimensions and customer perceived value exist: between behavioral engagement and perceived value (r=0.486, p<0.001), between emocional engagement and perceived value (r=0.422,

p<0.001), and between cognitive engagement and perceived value (r=0.305, p<0.05). Analysing relations between customer perceived value and satisfaction, it was determined that weak, but statistically significant relationhip exists (r=0.348, p<0.001). The correlation analysis between customer engagement dimensions and satisfaction revealed that weak relationships exist between behavioral engagement dimension and satisfaction (r=0.229, p<0.05), between emotional engagement and satisfaction (r=0.241, p<0.05) as well as between cognitive engagement and satisfaction (r=0.209, p<0.05).

The multiply regression analysis was performed with customer engagement dimensions as independent and perceived value as dependent variables. The regression model (R^2=0.251, p<0.001) revealed that behavioural engagement and emotional engagement had a significant impact on customer perceived value, however behavioural engagement had a higher impact (β=0,407, p<0.001), than emotional engagement (β=0,264, p<0.001). Meanwhile it was found that cognitive engagement did not have significant impact on customer perceived value (β=0,070, p=n.s.) in the case of mobile apps. However the regression analysis with satisfaction as dependent and perceived value as independent variable showed that perceived value explained about half of variance in satisfaction (R^2=0.476, p<0.001).

The results confirmed the existence of reciprocal relationships between customer engagement and satisfaction. Several regression models were created: 1) with satisfaction as dependent variable and the dimensions of customer engagement as regressors, and 2) with satisfaction as regressor taking a) behavioral, b) emotional and c) cognitive engagement as dependent variables. In first case, the adjusted R^2 coefficient were 0.133; too small for considering meaningful interpretation. Therefore we cannot confirm the positive impact of separate customer engagement dimensions on customer satisfaction. However, the vice versa analysis revealed that satisfaction itself explains about 31% of behavioral engagement (R^2=0.309, p<0.001), same part (31%) of emotional engagement ((R^2=0.305, p<0.001), and about 25% of variance in cognitive behaviour (R^2=0.244, p<0.001).

Conclusions

The research findings confirm the context specific nature of customer engagement and its relations to satisfaction. Not all theoretically identified influences were confirmed in the case of mobile apps. The results show that mobile apps users perceive better value when they are engaged with apps behaviorally (spends lot of time in apps store, considers comments, number of downloads in total and programs downloaded by influents, etc.) and emotionally (express positive feelings about apps, tend to discuss about apps, writes comments on apps, etc.), while cognitive engagement is not proved to be important in this case. The implication is that marketers should be able to find decisions to engage apps users or to find other ways to increase customer perceived value as it has significant impact on customer satisfaction in the case of mobile apps. Thus more detail analysis of customer engagement with mobile apps is necessary seeking to explain its mechanism, to reveal motives of engagement.

Besides the research results confirm that satisfaction should be treated as an antecedent of customer engagement in the context of mobile environment, and more complex studies in this field are necessary in order to fulfill mobile apps users' expectations and to survive in highly competitive mobile apps market.

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