Relationship between customer satisfaction and the recommendation and repurchase intention in online shopping environment

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Abstract

The aim of our research is to examine quality perception and satisfaction, and their impact on the performance of webshops The "performance" is measured by customer satisfaction, electronic and traditional recommendation intentions, and repurchase intentions. We also sought to answer the question of what non-monetary dimensions have the most important predictive power in determining future behaviour - influencing repurchase intentions and generating word-of-mouth in the online shopping environment.

For the research we defined an integrated model containing three parts in which the relationships between the variables were tested by a survey. The online survey was conducted on a sample of 2000 respondents. The results show that also in the online environment there is a strong correlation between trust, usefulness, perceived quality and satisfaction. Satisfaction also has a significant impact on traditional WOM, e-WOM and repurchase intentions.

Keywords: online shopping environment, customer satisfaction, recommendation, repurchase intention, modelling

Track: Retailing and Omni-Channel Management

1 Background of the research

Online retail sales are growing exponentially and Hungary is no exception. Last year it reached about 3.1 billion EUR (eNet, 2019). However, this sales channel is far from being a homogeneous area, neither based on the type of goods purchased - products and services - nor from the customers' point of view. It has been known for a long time, and can be proved by many academic studies, that companies can perform better in a market with scattered preferences when using segmentation as a tool.

The aim of our research is to examine quality perception and satisfaction, and their impact on the performance of webshops. In our study, we do not approach "performance" primarily with indices accepted in financial literature, but from a marketing perspective, with customer satisfaction, traditional WOM, e-WOM and repurchase intention. The most frequently used non-financial indicators are consumer satisfaction and consumer loyalty. Our research also sought to answer the question that besides the essentially monetary dimensions used in collocating, comparing, and evaluating customers, which are the most important non-monetary dimensions that may determine future behaviour – influencing repurchase intent and generating word of mouth under online buying circumstances.

The present paper is one of the results of a four-year research project. One aim of the research was to investigate the relationships between perceived quality and the performance variables in various segments of e-commerce. In this paper our focus is not the different behaviour in the different segments, but to find the general relationships of the investigated variables, relevant generally for the sample.

2 Literature principles

2.1 Quality, satisfaction, repurchase intention in the online environment

Many researchers agree that quality assessment for online stores is not limited to transactions but covers the full range of electronic services (Zeithaml et al., 2002). E-services include all interactive services that are transmitted over the Internet, taking advantage of telecommunication, information and multichannel technologies (Sousa - Voss, 2006). This means that when evaluating quality, in addition to the events occurring during the transaction, the so-called. pre- and post-transactional service aspects, such as the process of gathering information, completing the transaction, customer service or any refunds, and handling issues.

Considering these, e-commerce quality of service will be referred to as e-SQ, a term used to describe the ability of a webshop to support efficient viewing, purchasing, and delivery (Zeithaml et al, 2002), whether the product and / or service is sold by that online store. Francis and White (2003) believe that e-commerce should be broken down into different groups and set up different measurement scales. In case of online fulfilment, after the transaction, the buyer must "stay" in the electronic environment to download or consume the product, while offline, he/she may leave the virtual world after ordering. Another factor of differentiation is whether the online store sells tangible products or non-tangible services.

Satisfaction is the most commonly named result of quality by researchers. If we accept that satisfaction is a complete evaluation of performance, then quality is the antecedent of satisfaction (Johnson - Fornell, 1991), so satisfaction can be determined by measuring the expected and experienced values of quality dimensions. Similarly to previous wordings, e-satisfaction in the online environment is an assessment of the consumer experience of a given webshop, taking previous online shopping experiences into consideration (Anderson - Srinivasan, 2003).

2.2. Online reviews, word-of-mouth behavioural dimensions

Word-of-mouth (WOM) advertising has always played an important role in sharing the experience of buying a product or service, in communicating and finding opinions about companies and their brands. Numerous researches have shown that consumers' behaviour is significantly influenced by conversations with others, and that messages from these sources of personal information have an impact on preferences and decision-making (Arndt 1967). Generally speaking, this phenomenon, including the development of word of mouth, can be classified as the comprehensive theme of personal influence, which is the intentional or unintended change in an individual's beliefs, attitudes, and behaviours as a result of any interpersonal communication (Hanna & Wozniak 2001). Nowadays, WOM can spread through many channels (in person, by phone, by email, on websites, etc.), but there is an increasing use of the Internet (Kiecker & Cowles 2002), where a person can take on the role of the opinion giving, seeking and forwarding at the same time and these are distinct, measurable, individual dimensions (Chu & Kim 2011). According to Cheung and Tadani (2012), we can distinguish two levels of theoretical research in oral advertising: market-level and individual-level analysis. In market-level approaches, researchers focus on market indicators such as sales volume and

draw conclusions based on objective panel data (e.g., website usage, positive and negative opinions) (Zhu - Zhang 2010). Individual-level approaches perceive WOM as individually-influenced communication in which the sender attempts to persuade the recipient to make a purchase (Park - Kim 2008). Thus, attention is focused on understanding the antecedents and consequences, basically along three lines of research. In the first case, studies aim to understand why consumers are proactive in sharing their experiences. Possible factors include extreme satisfaction or dissatisfaction (Bowman - Narayandas 2001), commitment to the company (Dick - Basu 1994), length of relationship with the company (Wangenheim - Bayon 2004), and value of product novelty (Bone 1992). The purpose of the studies in the second phase of the research is to understand what drives information seeking behaviour, and more specifically, the circumstances in which consumers rely on WOM rather than other sources of information to make their decisions. Customers who have less experience in a given product category (Fuse et al. 1984), who are characterized by a higher risk perception (Bansal - Voyer 2000), who are more involved in purchasing decisions, are more likely to seek the opinions of others. Studies in the third branch of research investigate why specific personal resources have a greater impact than others. Factors such as source expertise (Bansal - Voyer 2000), relationship closeness, and perceived similarity (haemophilia) (Brown - Reingen 1987) can be described as essential characteristics of WOM propensity to accept.

Numerous studies have proven that satisfaction has a fundamentally positive effect on the willingness to recommend (Swan - Oliver 1989) and the number of recommendations (Anderson 1998). In addition, this research explores another approach: how do the behavioural components (opinion, search, and referral) associated with online word of mouth influence satisfaction in a particular online shopping situation, and thus the willingness to recommend and repurchase?

3. Developing the integrated model and its results

Our aim was in with the research model to describe the relationships among the performance variables – traditional WOM, e-WOM and repurchase intention – and to measure the effect of the factors influencing the performance variables. The model is based on the relationships among perceived quality, satisfaction and the performance variables, used in our previous research.

Since our previous results (Kemény 2015; Nagy 2016) show that there is only a small difference between the effects of quality perception, satisfaction, resale recommendation and repurchase intentions in different e-commerce situations, we do not consider the model developed separately in this study. The purpose of the model is to develop a possible non-monetary customer rating system by learning about the evolution of three performance variables - repurchase, traditional WOM and e-WOM intentions. The model was developed as an integrated application of three theoretical frameworks. The main pillar of the model is the relationship between perceived quality, satisfaction and its consequences. Since our previous results showed that the explained variance of e-referral intention is lower than other endogenous variables, it is worth including more variables to get a deeper understanding. In this study, we included individuals' attitudes toward, seeking, and transmitting opinions as explanatory variables, separately for offline and online reviews, and examined their impact on the evolution of traditional and e-referral intentions related to specific online shopping. The third element of the integrated model is a later adaptation of DeLone & McLean's 2003 model of e-commerce systems (Brown - Jayakody, 2008). In addition to the previously used quality dimensions associated with specific purchases, this model also contains two general elements: trust in a particular webshop and perceived usefulness of a particular webshop.

As empirical research, we conducted an online survey with 2000 respondents, who made online purchases over the last 3 months. The sample is representative of gender, age, and settlement type in the 18-65 age group. The evaluation of the measurement and structural models has been done with Smart PLS. The coefficients of the measurement model are in Table 1.

Table 1: Loading values (coefficients) for latent variables

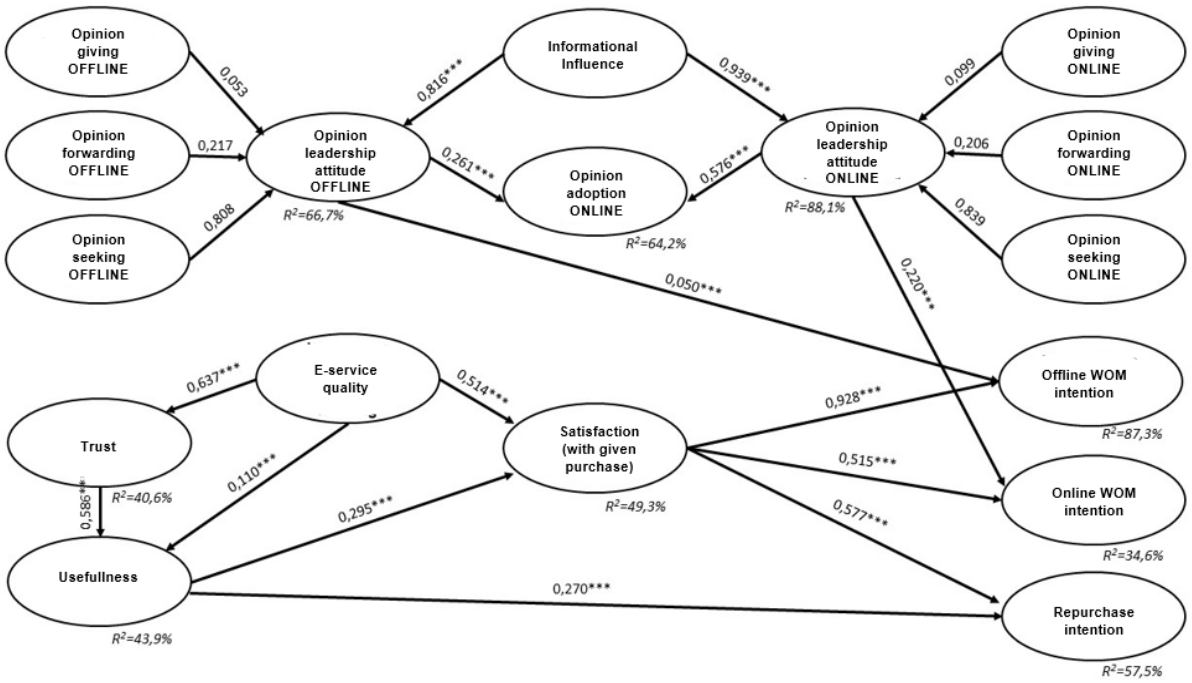
Expedience		**Informational influence**	
utility_1 utility	0,8190	info_infl_1	0,8140
utility_2	0,7662	info_infl_2	0,8067
utility_3	0,8800	info_infl_3	0,7530
utility_4	0,8427	info_infl_4	0,7201
utility_5	0,8514	**Attitude towards online opinions**	
utility_6	0,8564	**Opinion sharing – ONLINE**	
Trust		Op_Giving _online_1	0,8861
trust_1	0,8901	Op_Giving _online_2	0,9283
trust _2	0,8887	Op_Giving _online_3	0,8832
trust _3	0,8892	**Opinion sharing – ONLINE**	
trust _4	0,9222	Op_transm _online_1	0,9491
trust _5	0,9270	Op_transm _online_2	0,8641
Online opinion adaptation		Op_transm _online_3	0,8991
Op_adop_1	0,8607	**Opinion seeking – ONLINE**	
Op_adop_2	0,8649	Op_seeking _online_1	0,8474
Op_adop_3	0,8887	Op_seeking _online_2	0,8429
Op_adop_4	0,8879	Op_seeking _online_3	0,8965
Op_adop_5	0,8827	Op_seeking _online_4	0,9029
Attitude towards offline opinions		**E-service quality to a purchase**	
Opinion giving - OFFLINE		Concrete_webshop_min	0,9048
Op_Giving_offline_1	0,9270	Purchase_min	0,8352
Op_Giving _offline_2	0,9314	Trust	0,6773
Op_Giving _offline_3	0,9134	Customer service_min	0,2630
Opinion transmission – OFFLINE		**Satisfaction of a given purchase**	
Op_transm_offline_1	0,9425	sat_1	0,9294
Op_transm _offline_2	0,9045	sat_2	0,9033
Op_transm _offline_3	0,9016	sat_3	0,9643
Opinion seeking – OFFLINE		**Traditional referral intention**	
Op_seeking_offline_1	0,8871	trad_wom_1	0,9810
Op_seeking _offline_2	0,8978	trad_wom_2	0,9217
Op_seeking _offline_3	0,9200	trad_wom_3	0,8810
Op_seeking _offline_4	0,8846	**Electronical recommendation intent**	
		e_wom	1,0000
		Re-purchase intent	
		Re-purchase	1,0000

Source: own compilation and results

Based on the results it can be concluded that all the effects assumed from our previous research can be considered significant with 95% confidence. Most models that measure the success of e-commerce systems measure success with the intent to use it further (DeLone & McLean, 2003, Brown - Jayakody, 2008), which in our research is completed with non-monetary dimensions: traditional and e-recommendation intentions. This is a novelty of our research.

Another innovation in the model is that we measure the attitudes of individuals to provide, seek, and transmit feedback using the method of Allard van Riel et al. (2017), sorted into a second order construct, resulting in a second-order latency associated with offline and online reviews variables.

Figure 1. Relation and results of the integrated model



Source: own compilation and results

According to the Cohen half f^2 indicator, 6 effects are considered to be strong: the effect of trust on usefulness ($f^2 = 0.36$), the effect of quality on trust ($f^2 = 0.68$) and on satisfaction ($f^2 = 0.40$), the effect of satisfaction on offline ($f^2 = 6.7$) and online recommendation ($f^2 = 0.40$) and repurchase intention ($f^2 = 0.55$). Although the changing effect of attitudes towards offline opinions is significant for traditional intention to recommend, it is hardly considered to be relevant ($f^2 = 0.02$) based on Cohen's index. However, the changing effect of attitudes toward online reviews on e-referral intention is also considered to be weak ($f^2 = 0.07$), however it is still greater than the former effect. Of the supposed effects, only one cannot be considered significant: the effect of quality on utility.

Using the multivariate linear regression method, prognostic functions were created with the latency values from the integrated model (Table 5). Based on these, knowing the values of the explanatory variables make it possible to estimate the non-monetary index of the buyers.

Based on the results, it can be seen that the explanatory variables of Brown and Jayakody (2008) all have a significant effect on the intention of traditional and e-resale, whereas the effect of quality is not significant in the case of the intention to repurchase (Table 2). The variables of the model-part related to the attitude towards recommending have a significant predictive effect only in the case of e-recommendation. In all cases, satisfaction is the strongest, but in the case of e-WOM, the general trust in the webshop also has a similar weight. The explanatory power of the model created is high in any case.

Table 2: Impacts between explanatory variables and outcome variables in the integrated model

<table>
<tr><th rowspan="2">EXPLANATORY VARIABLES</th><th colspan="3">OUTCOME VARIABLES</th></tr>
<tr><th>Traditional recommendation intent</th><th>E-recommendation intent</th><th>Repurchase intent</th></tr>
<tr><td>constant</td><td>-0,065</td><td>0,349</td><td>-0,231</td></tr>
<tr><td>Utility</td><td>0,085</td><td>0,249</td><td>0,280</td></tr>
<tr><td>Trust</td><td>0,206</td><td>0,313</td><td>0,108</td></tr>
<tr><td>Quality</td><td>0,044</td><td>0,117</td><td>not significant</td></tr>
<tr><td>satisfaction</td><td>0,722</td><td>0,346</td><td>0,652</td></tr>
<tr><td>informational influence</td><td>not significant</td><td>0,085</td><td rowspan="4">Based on the integrated model there is no direct or indirect impact on the variable</td></tr>
<tr><td>attitudes towards online opinions</td><td>Based on the integrated model there is no direct or indirect impact on the variable</td><td>0,273</td></tr>
<tr><td>attitudes towards offline opinions</td><td>not significant</td><td>Based on the integrated model there is no direct or indirect impact on the variable</td></tr>
<tr><td>opinion adaptation</td><td>not significant</td><td>-0,102</td></tr>
<tr><td>R2</td><td>90,5%</td><td>63,2%</td><td>75,0%</td></tr>
</table>

Source: own compilation and results

4. Summary and further directions of research

In order to achieve the main goal of our research, we have developed an integrated model consisting of three pillars. We have used this model to investigate the effects of traditional WOM and e-WOM, as well as repurchase intentions in the online shopping environment. Based on the values of the latent variables, we also created a graph which predicts the result variables. Our results show that in the online shopping environment, there is a strong correlation between satisfaction and intention to recommend, with the strongest effect on traditional WOM, then repurchase intention and e-WOM. Trust also plays an important role in online purchases with a strong relationship to both quality and perceived quality. We have found a weak relationship between the attitudes towards offline and online reviews and intentions of referrals.

Although the research has analysed the issues raised, it has limitations that also determine further directions of research.

It would be important to back up the results with analyses based on company data. In the case of accepting and adapting opinions, the revealed relation with the sender (significance of perceived similarity and relationship closeness) can lead to a positive change in the customer portfolio in the long term. Simulating this, testing it on real company time series, on growth data would also lead to interesting research results.

In addition to developing a non-monetary customer rating index, it would also be worth examining its impact on customer lifetime value and its relation to CLV. This would also require longitudinal company data.

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