

THE RELATIONSHIP BETWEEN ONLINE TRUST, CUSTOMER ENGAGEMENT AND EWOM

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ABSTRACT

This study aims to investigate the influence of e-quality and online trust on customer engagement and e-word of mouth. In particular, this study explored and analyzed a relatively new relationship, the impact of customer engagement on e-word of mouth. The measurement model and conceptual model describing the relationships hypothesized in the study was evaluated, based on responses from 370 online purchasing customers who are students or office workers in Ho Chi Minh City. E-quality has a direct impact on online trust, which impacts online customer engagement of customers and e-word of mouth. Online trust has a direct affect on customer engagement and e-word-of-mouth. In particular, online engagement impacts on e-word of mouth. This study provides not only theoretical and practical meaning, and enables companies to realize the importance of customer engagement and e-word of mouth but also a number of solutions to help businesses build and increase their customer engagement and positive e-word of mouth.

Keywords: Customer engagement; E-quality; EWOM; Online trust.

1. Introduction

Word of mouth (WOM) was defined as the information about products and services shared by consumers, and considered as the most effective ways of communicating among customers (Alreck and Settle, 1995; Arndt, 1967). Word of mouth communication (WOM) has long become a dominant concept in consideration of both researchers and managers. Word of mouth was a main factor in creating the attitudes and behavior of consumers (Brown and Reingen, 1987) and had an impact on customer perception in product (Engel et al., 1969; Katz and Lazarsfeld, 1955; Trusov et al., 2009). Word of mouth was also found to have a significant impact on consumer purchasing decisions (Katz and Lazarfeld, 1955; Engel et al., 1969;

Arndt, 1967; Richins, 1983), as well as perceptions after-sales (Bone, 1995).

Traditional word-of-mouth information has been transformed into online word-of-mouth as a result of technology development and wide-use of internet. Hennig-Thurau et al. (2004) identified e-word-of-mouth with positive or negative comments made by customers about the product or company and were provided to people and organizations through the Internet. The difference between WOM and EWOM is that EWOM occurs in anonymous and asynchronous online environments (Dwyer, 2007). Thus, EWOM occurs through different online channels such as blogs, e-mails, consumer forums and forums, virtual consumer communities, and social networks (Hung and Li, 2007; Teng et

al., 2014). EWOM could be expressed as comment about the consumers's comments on different platforms such as retailers' sites, brand communities, independent websites, blogs, and other platforms (Herr et al., 1991; Lee and Youn, 2009).

There are many studies identified EWOM that could be more reliable, empathetic and relevant than website (Bickart and Schindler, 2001). Chevalier and Mayzlin (2006) also suggested that EWOM was a convenience method for consumers to search quality products and services and reliable source of consumer purchasing decisions (Hennig-Thurau et al., 2004; Davis and Khazanchi, 2008).

Some common factors have been found to have direct impact on EWOM such as e-commerce quality, online trust. However, research of EWOM still lacks of a full model that can demonstrate the mechanism through which customer experiences lead to perception, attitude and behavior toward a brand or product. In this study, we develop a model to investigate how customer experience the quality of e-commerce impacts on customer trust to build the engagement and through which, facilitates EWOM. On this way, we reply to the call for research of (trích dẫn) and shed the light on the way how EWOM is built and enhanced.

Every company needs to develop an online branding community that uses positive feedbacks from customers to promote the brands or the product (Royo-Vela and Casamassima, 2011; Chow and Shi, 2015. Zhang and Luo, 2016).

Therefore, e-commerce businesses in Vietnam, word-of-mouth is the most concern of every company To find out the antecedents of EWOM, this research has the following main objectives: 1) Finding out factors that affect the engagement and EWOM of online consumers, 2) analyzing the impact of the factors affecting the engagement and EWOM

of online consumers.

2. Literature Review

2.1. The theory of customer engagement, online engagement

Engagement has been discussed both in academic and practical site. In the business world, engagement has been called a contract between company and customers. In the management philosophy, it was discussed as an organizational activity with internal stakeholders. Understanding the theory of customer engagement was important in terms of creating benefits to company (Kumar and Pansari 2015; Kumar 2013). Therefore, customer engagement had a very important role for the company. Furthermore, Vivek et al. (2012) found that customer engagement included all customer activities with the firm, initiated by the consumer or company such as the involvement, connectivity, and participation with the organizational activities. Brodie et al. (2013) argued that the outcomes of client engagement processes were loyalty and satisfaction, empowerment, and trust commitment. Reinartz and Kumar (2002) found out the importance of engaging customers and evaluating customers not just by their actions. Sashi (2012) found that the online customer engage to company by using word of mouth as product reviews through Web sites, blog communities and social networks (Sashi, 2012).

2.2. Online trust

Trust has been discussed frequently in academic world and the common definition was Moorman et al. (1992), which was as a willingness to believe in a business partner. Barney and Hansen (1994) had defined trust as the mutual trust that no one exploited the weaknesses of others. According to Jarvenpaa, Noam and Vitale (2000), trust was the relationship between uncertainty, sensitivity and commitment. In addition, trust could also be defined as an individual's trust in others that can be determined by their integrity,

generosity, and competence (McKnight et al., 2002; Lin, 2011). Following Pavlou and Fygenson (2006), trust was defined as the trust of the buyer that the seller should behave generously, professionally and ethically. And recently, Oh et al. (2012) defined trust as a sense of expectation formed by individuals or groups that could lead to a tendency to believe the trading partners they trust and appreciated. Online trust are created through positive comments in the website (Jarvenpaa et al., 2000). Online trust plays a very important role in determinant of customer's attitude or intention to purchase (Gefen and Straub, 2003, Gefen and Community 2003, Wang and Emurian, 2005, Hassanein and Head, 2007; Lin, 2011, Limbu et al., 2012).

2.3. E-quality: assurance, e-servicescape, responsiveness, customize, easy of use

Ecommerce quality was the extent to which a website facilitates the procurement and distribution of effective products and services (Zeithaml et al., 2000; Zeithaml, 2002). Santos (2003) defined the quality of e-services as a general assessment of the customer's quality and service excellence in the virtual marketplace. Ecommerce quality was defined as a cognitive judgment that relates to the organization's excellent or superior long-term (Ma and Zhao, 2012). This study focuses on the following five aspects to assess the quality of e-commerce, which are assurance, responsiveness, correctness, and quality of service and ease of use.

2.4. EWOM

EWOM, also known as electronic word of mouth, is spread by potential, actual or former Internet users. It helps product or business that has positive or negative comments and is widely observed (Thorsten and Walsh, 2004). Additionally, Sun et al. (2006) stated those comments would be posted by online community and organizations through the Internet then influence to current, potential or former customers. EWOM occurs through

online channels such as blogs, e-mail, web forums, online communities, and social networks (Li, 2007; Teng et al., 2014). EWOM is a reliable source of information for consumer purchasing decisions (Hennig-Thurau et al., 2004, Davis and Khazanchi, 2008) and Online word of mouth marketing can increase product sales (Chevalier and Mayzlin, 2006, Davis and Khazanchi, 2007; Zhu and Zhang, 2010).

3. Hypothesis and Research Model

3.1. The impact of E-quality on online trust

Gro'nroos et al. (2000) investigated e-quality factors directly affect online trust. Moreover, Corritore et al. (2003) pointed out that quality of e-commerce determined the credibility system to online customers; the study proposes the following hypothesis:

H1: The assurance in e-quality has a positive impact on the online trust of customers

E-sevicescape is a main factor that affects consumer confidence in online shopping (Al-Nasser Yosoff et al., 2014). Many studies had shown the efficiency of service quality that has an influence on consumer confidence in a website (Harris and Goode 2004, 2010 and Tran et al., 2012). Harris and Goode (2010) also found the impact e-services on consumer's trust and engage in online shopping.

H2: E-service scap in e-quality has a positive impact on customer trust online

Responsiveness refers to the effective of solving problems through the web (Parasuraman et al., 2005). Yang et al. (2004) implied responsiveness was the most important factor in determining the quality of e-commerce. When interacting with an online community, it is important that customers receive accuracy and timely feedback of any questions or problems (Semeijn et al., 2005). Furthermore, Moorman et al. (1993) the company communicates with customer promptly that could build customer trust and accurate response can reduce negative information. Thus, it is a nessesary method for

online company to engage with customers (Gummerus et al, 2004). Lee's (2005) also discovered has a strong relationship with customer trust. Therefore, the hypothesis is developed as follows:

H3: The responsiveness in e-quality has a positive impact on customer trust online

Lee and Benbasat (2003) defined customization as a creative design ability through user mobility. Venkatesh et al. (2003) further suggested that the impact of customization could be extended to enhance the design of mobile interfaces and improve mobile usability, thus enhancing the level of satisfaction. Hence, the quality of the site refers to the process of satisfaction. So this study assumes that:

H4: Quality of e-commerce has a positive impact on customer trust online

Davis (1986) discovered ease of use was the belief that consumers do not try too hard to use online technology. Casalo et al. (2007) found that easy-to-use perceptions had a direct and significant influence on consumer trust, especially in financial services. The easy-to-understand information on websites reduces suspended message to customers. Moreover, improving online trust and positive comments influence customer purchase intention (Koufaris and Hampton- Sosa, 2004; Kuo et al., 2004, Cao et al., 2005). Consequently, the perception of ease of use influences consumers' online trust. The hypothesis of this study is following:

H5: Ease of use in ecommerce quality has a positive impact on online trust

3.2. The impact of online trust on online engagement

An online community wants to engage in online community activities because of their online identity. When they are recognized by online community, they tend to show their awareness, attitudes, behaviors in the group (van Knippenberg and Hogg, 2003). Also, the person who is identified in group has more

interactions among community members. (Algesheimer et al., 2005). Bagozzi and Dholakia (2006) argued that group identification affects the intention of others to engage in collective activities, cooperation, and organizational altruism. Everyone in the group is part of the community and shares their common interests and then want to help the other members (Leana and Van Buren, 1999). Thus, the research hypothesis is as follows:

H6: Online trust has a positive impact on customer engagement online

3.3. The impact of customer engagement on e-word of mouth on online shopping

Hyuk Soo Kim, Jung Kyu Kim (2012) found that customer engagement has a significant influence on their intention to communicate directly and indirectly. If they engage with the brand, they will spread out the positive comments for their online brand communities to prove they belong to the brand.

H7: Customer engagement has a positive impact on EWOM

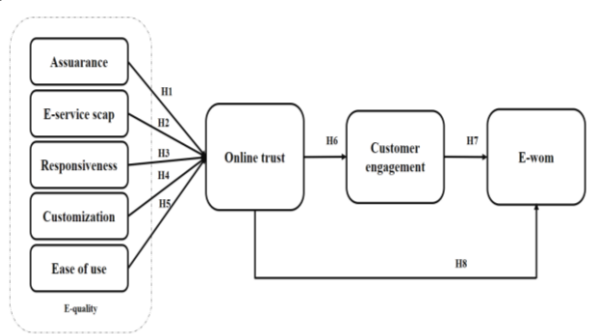
3.4. The impact of online trust on EWOM through online customer engagement

Soares et al. (2012) argued that trust could affect WOM or the sharing information about products and services. When people know the product or service then they tend to increase the engagement. Kassim and Abdullah (2010) clarified this effect and Ridings et al. (2002) found that trust in online community increases the trend of information exchange in virtual communities significantly. Similarly, Smith and Adviser-Menon (2002) investigated when trust between users build up the tendency to accept future recommendations from their peers. Therefore, when other users have a higher level of trust with company or brand, they are more likely to believe and accept the message. Kankanhalli et al. (2005) demonstrated that public trust influences information sharing through electronic sources, and Lu et al. (2010) emphasized that trust in the ability of the site positively

influences the intention to gather information and purchasing.

H8: Online trust has a positive impact on e-word of mouth

By all the hypotheses are described above, this study synthesizes the research model as follows:



4. Methodology

4.1. Measurement items

The constructs used in this research were elaborated based on widely accepted multi-item scales developed from the previous literature. The eight major constructs were applied for this research such as the e-quality were adopted from Zeithaml et al. (2002); Parasuraman et al. (2005); Ribbink et al. (2004); Barnes and Vidgen (2002). In particular, ease of use (five items), customization (four items), responsiveness (five items), e-servicescape (five items) and assurance (five items). Technology (fifteen items) is measured through three sub-dimensions: ease of use (four items). Online trust in a website is measured with five items adopted from Morgan-Thomas and Veloutsou (2013), Online engagement is measured with five items adopted from Vivek (2009). Finally, E-wom is measured with four items from Kim et al. (2001) and Chiu et al. (2013).

Each of these variables was measured by seven-point Likert-type scale, ranging from 1-strong disagree to 7-strong agree. A neutral response “neither disagree nor agree” was adopted to reduce uninformed responses. Lewis (1993) found that the 7-point scale produced stronger correlations, so the results will be more accurate.

4.2. Sampling and data collection procedure

According to Bollen (1989) và Hatcher (1994), the size of the sample is equal or more than $n \times 5$ (n : items). Thus, with 37 items are measured by seven-point Likert-type scales, the minimum size of the sample was $n=185$ (37×5).

The researchers choose convenience non-probability sampling method relying on the ease of approach of respondents whom we were able to meet at public places such as companies, universities, with condition that they have been shopping. People studying or working are the main subjects of this study because they are people who shop online, and adapt technology the most (Mastercard, 2015). Before collecting data, researchers piloted a survey questionnaire by randomly selecting 30 student and office workers. This step helps to identify sentences that participants are confused about.

The research model was examined with data from more than 400 students and office workers in Ho Chi Minh City. The data was collected via the Internet like Facebook and Google Form. At the same time, a direct survey was carried out at 15 Universities, and 10 office buildings at 24 district 15 universities and 10 office buildings were selected at random.

5. Result

241 responses were collected from the direct survey and 209 from the survey via the Internet. The inappropriate questionnaires were rejected because they don't have untruthfulness answers, and they weren't related to the subjects during the survey. Finally, a total of 370 questionnaires were used for data analysis.

Through the table of statistical analysis described above, in terms of occupations the respondents included 185 office employees, accounting for 50%, and 185 students, accounting for 50% of the total, consistent with

the research objectives. Of all these 370 respondents, online shopping accounted for 100%, 270 female respondents (73%) are greater than 100 male respondents (26%).

In terms of age, the majority of respondents belonged to the 18 – 23 age group with 65.9%. The second group from 24 – 29 years of age with 24.6%. The other two groups accounted for 8.4% and 1.1% respectively at the age of 30 -34, and at the age of 35 and older. In terms of income, the average income groups that accounted for the majority of the respondents ranged from 5,000,000 VND below with more than 53.2% of the total. The second groups which ranged from over 5,000,000 VND to 10,000,000 made up 34.6%. The other groups which ranged from 15,100,000 VND to 20,000,000 VND and over 20,000,000 VND accounted for 3% and 0.3% respectively. For education, the majority of respondents were postgraduates, accounting for 91.6%. The second proportion was the group of college graduates with 6.8%, Finally, the least part of the respondents belonged to university graduates with 1.6%.

Scale Reliability Analysis – Cronbach's Alpha

The Cronbach's Alpha coefficient is used to exclude nonconforming variables, with criteria rated as items with an item correlation less than 0.3 being eliminated and the criteria for selecting the scale. is when the Cronbach's Alpha value is ≥ 0.6 (Nunnally & Burnstein, 1994). According to Hoang Trong and Chu Nguyen Mong Ngoc (2008), the Cronbach alpha coefficient from 0.8 to almost one scale is considered good. The results of the analysis of the scale of the research concepts are presented in. The results show that all of the observational variables of the scale were of a standard that had a cumulative correlation coefficient greater than 0.3 and Cronbach's Alpha greater than 0.6; So no variables were excluded and the established scale of the study was reliable.

Analysis CFA model

The first CFA test has the results such as Chi-square = 1831.065 with $p = 0.000$. Other indicators with $CMIN / df = 3.047$ did not meet the condition of less than 3, $CFI = 0.888$ did not meet the condition greater than 0.9; and $TLI = 0.876 (<0.9)$, $RMSEA = 0.076$, $GFI = 0.736 (<0.8)$ did not satisfy the condition. This study made adjustments to the small weighted variables to improve the indexes. After the 5 variable observations (AS3, ES3, CU3, OCE3, OT5), the CFA results shown in the table indicate that the conformance evaluation indicators of the model were fit and comfort with the context of Vietnam.

CFA was performed with 34 observation variables of 8 factors. In this section, the model is considered appropriate if the indicators meet the following requirements:

Chi square root of $CMIN / df < 5$.

Comparative fit index ($CFI \geq 0.9$).

Tuckey & Lewis index (TLI : Tukey and Lewis index) ≥ 0.9 .

GFI (goodness of fit index) ≥ 0.8 .

The $RMSEA$ (Root mean square error approximation): less than 0.08 (Feather & Page, 2008) or less than 0.06 is considered very good (Steiger, 1990).

The first CFA model has 601 degrees of freedom, Chi-square = 1831.065 with $p = 0.000$. Other indicators with $CMIN / df = 3.047$ did not meet the condition of less than 3, $CFI = 0.888$ did not meet the condition greater than 0.9; and $TLI = 0.876 (<0.9)$, $RMSEA = 0.076$, $GFI = 0.736 (<0.8)$ did not satisfy the condition.

To test the reliability of the scales, we consider three indices as the CR, the AVE deviation, Cronbach' Alpha. The scale is considered reliable when the CR composite reliability coefficient and the extraction deviation are greater than 0.5 (Joereskog, 1971; Fornell and Larcker, 1981). The scale reliability test results are shown in the table for the composite confidence coefficient ranging

from 0.555 to 0.929, the extraction deviation is from 0.535 to 0.823, the condition is greater than 0.5, and The Cronbach's Alpha coefficient ranges from 0.725 to 0.923 which are greater than 0.6. With this result, we say, the scale after variable type in CFA analysis is reliable.

In addition, with the weight of the

observation variables greater than 0.5, at a statistically significant level of 0.000, it is concluded that the observed variables of the 9 groups of factors achieve convergence value. The errors of the observed variables do not correlate with each other, so all the factors get unilateral.

Table 1

Cronbach's Alpha, AVE and CE

| Items | Number of items | Cronbach Alpha | AVE | CR |
|-------|-----------------|----------------|-------|-------|
| AS | 4 | 0.829 | 0.554 | 0.832 |
| ES | 3 | 0.913 | 0.788 | 0.879 |
| CU | 3 | 0.725 | 0.727 | 0.732 |
| RE | 5 | 0.851 | 0.535 | 0.878 |
| EOU | 5 | 0.913 | 0.823 | 0.929 |
| OCE | 4 | 0.841 | 0.578 | 0.845 |
| OT | 4 | 0.880 | 0.655 | 0.883 |
| EW | 4 | 0.895 | 0.550 | 0.555 |

The coefficient of correlation for the components with the standard deviation shown in the table is less than 1, with $p = 0.000 < 0.05$, which is statistically

significant, indicating the assurance factors, quality of service, ease of use, responsiveness, online trust, engagement, and word of mouth are of distinctive values.

| Correlations | | | Estimate | S.E. | C.R. | P |
|--------------|------|-----|----------|-------|--------|-----|
| OT | <--> | ES | 0.456 | 0.093 | 6.811 | *** |
| OT | <--> | EOU | 0.544 | 0.101 | 7.725 | *** |
| OT | <--> | CU | 0.574 | 0.079 | 6.4 | *** |
| OT | <--> | AS | 0.766 | 0.109 | 8.625 | *** |
| OT | <--> | RE | 0.734 | 0.101 | 8.591 | *** |
| OT | <--> | OCE | 0.774 | 0.123 | 9.329 | *** |
| OT | <--> | EW | 0.614 | 0.115 | 8.258 | *** |
| ES | <--> | EOU | 0.851 | 0.124 | 10.292 | *** |
| ES | <--> | CU | 0.922 | 0.111 | 7.671 | *** |

| Correlations | | | Estimate | S.E. | C.R. | P |
|--------------|------|-----|----------|-------|--------|-----|
| ES | <--> | AS | 0.463 | 0.09 | 6.603 | *** |
| ES | <--> | RE | 0.651 | 0.097 | 8.322 | *** |
| ES | <--> | OCE | 0.635 | 0.115 | 8.62 | *** |
| ES | <--> | EW | 0.784 | 0.13 | 9.764 | *** |
| EOU | <--> | CU | 0.893 | 0.111 | 7.659 | *** |
| EOU | <--> | AS | 0.489 | 0.095 | 6.878 | *** |
| EOU | <--> | RE | 0.802 | 0.11 | 9.327 | *** |
| EOU | <--> | OCE | 0.76 | 0.127 | 9.664 | *** |
| EOU | <--> | EW | 0.815 | 0.135 | 10.055 | *** |
| CU | <--> | AS | 0.582 | 0.076 | 6.243 | *** |
| CU | <--> | RE | 0.749 | 0.085 | 6.951 | *** |
| CU | <--> | OCE | 0.731 | 0.101 | 7.135 | *** |
| CU | <--> | EW | 0.786 | 0.11 | 7.335 | *** |
| AS | <--> | RE | 0.625 | 0.091 | 7.566 | *** |
| AS | <--> | OCE | 0.618 | 0.109 | 7.831 | *** |
| AS | <--> | EW | 0.618 | 0.112 | 7.913 | *** |
| RE | <--> | OCE | 0.735 | 0.111 | 8.788 | *** |
| RE | <--> | EW | 0.766 | 0.117 | 9.022 | *** |
| OCE | <--> | EW | 0.786 | 0.14 | 9.716 | *** |

Thus, after CFA analysis, there were 30 observation variables (8 observation variables), service quality (3 observation variables), and adjustment (3 observation variables), the response (5 observation variables), easy to use (5 observation variables), engagement (4 observation variables), online beliefs (4 observational variables), word of mouth (4 observed variables). 4.4 Analysis SEM Model

To test relationships in the research model and test the hypotheses, the linear SEM model is used. After running AMOS, SEM model was applied. The fit tests of the model are shown in

the table. The model was considered to be suitable for market data when there were TLI, CFI 0.9, CMIN/df 3, GFI 0.08 and RMSEA 0.08. At the first run we can see that the CMIN/df = 3.246 > 0.3, CFI = 0.906 > 0.9, TLI = 0.894 < 0.9, RMSEA = 0.074 < 0.08, GFI = 0.781, TLI and GFI and CMIN/df have not reached the permitted level.

At the last SEM run, the indicators show that the linear structure model is consistent with market data. In particular, the RMSEA = 0.007 < 0.08 indicates that this is a relatively good model.

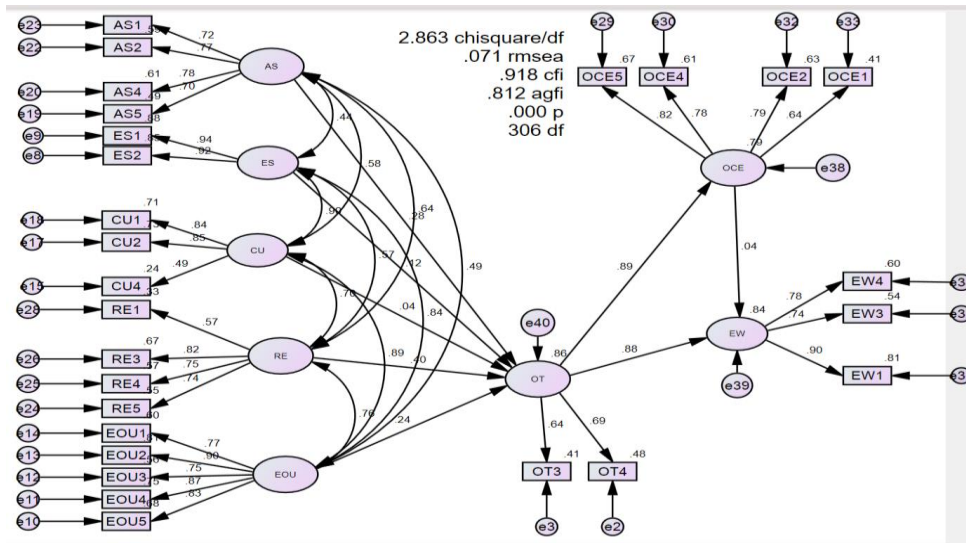


Figure 1. SEM result

Bootstrap is a finite sampling method developed by Efron (1979). This is a repetitive sampling method that replaces the original sample, in which the prototype plays the role of a crowd (Schumacher and Lomax, 1996).

Testing the bootstrap will help the team assess the sustainability of the model. The difference in the bootstrap estimate with the smaller sample shows the reliability of the calculated sample.

| Corelation | | Estimate | S.E. | P | Statistical significance | |
|------------|------|----------|-------|-------|--------------------------|-------------|
| AS | ---> | OT | 0.277 | 0.327 | *** | Supported |
| ES | ---> | OT | 0.091 | - 387 | 0.273 | Unsupported |
| CU | ---> | OT | 0.05 | 0.638 | 0.827 | Unsupported |
| RE | ---> | OT | 0.39 | 0.487 | *** | Supported |
| EOU | ---> | OT | 0.202 | 0.141 | 0.048 | Supported |
| OT | ---> | OCE | 1.096 | 1.118 | *** | Supported |
| OT | ---> | EW | 1.084 | 0.414 | *** | Supported |
| OCE | ---> | EW | 0.038 | 0.269 | 0.784 | Unsupported |

Based on the results from the significance level column (P) in Table 16, if any relationship had a p-value of <0.05, then it would be statistically significant. In contrast, if any relationship had p-value > 0.05, it was not statistically significant.

While factors such as assurance and responsiveness, ease of use have a positive impact on consumer confidence in online shopping, quality of service, ease of use,

revision There is not much impact on customer confidence in the online shopping axis. This can be explained that while customers believe in secure, easy-to-use and responsive Web sites, when it comes to quality translations and high corrections, I trust that site more. The above results also show that the online trust impacts on customer engagement, as well as online information of customers. But engagement will not have a positive impact on

word of mouth communication. These impact relationships will be explained more clearly in the hypothesis test.

5. Discussion

H1: The assurance in e-quality has a positive impact on the online trust of customers

As we mentioned above, assurance is a factor of service quality. Parasuraman (1988) studied and pointed out that the thing that brings about trust and credibility was seen as the basis of knowledge that workers have, and it was called a guarantee. And the guarantee will appear when customers trust making online transactions. The results of the study show that if a website gives customers a high level of assurance then the customer will be more likely to trust that site, which can lead to more trusting customers, frequent online site acquisitions.

H2: E-service scope in e-quality has a positive impact on customer trust online.

Online services address all of the elements of today's online environment through service delivery (Harris and Goode 2010, Hopkins et al., 2009; Van Haperen 2010). This result is similar to Dina Ribbink, Allard C.R. van Riel, Veronica Liljander, Sandra Streukens, (2004) research, e-commerce quality factors such as quality of service; ease of use and adjustment did not significantly affect online trust. The results of the study, as confirmed and supplemented by Dina Ribbink et al. The results show that the quality of service in commercial quality does not affect the online trust of customers. That means online trust of customers will not be enhanced by quality of service. It is fit with Ho Chi Minh context when most companies concern about the quality website, therefore, most websites have the same quality. It is too difficult for customers to recognize the differences between them to earn their trust.

H3: The responsiveness in e-quality has a positive impact on customer trust online.

Parasuraman et al. (1988) indicated that

being willing to help customers, providing fast service is called responsiveness. According to Lee's (2005) study, responsiveness plays a supporting role in the development of customer trust. The results of this study continue to assert that previous feedback on responsiveness has a strong impact on online trust. When a website delivers fast response, timely help, accurate information and satisfactory increase the trust of online customers.

H4: The customization in e-quality has a positive impact on online trust

Lee and Benbasat (2003) defined customization as an improved design ability through user mobility. As mentioned above, according to Dina Ribbink, Allard C.R. van Riel, Veronica Liljander, Sandra Streukens, (2004), e-commerce quality factors such as quality of service, ease of use and adjustment did not significantly affect online trust. The results of the study show that even if customers could edit their mobile sites, they do not increase their trust in the sites.

H5: Ease of use in e-quality has a positive impact on online trust.

Although Casalo et al. (2007) found that easy-to-use perceptions had a direct and significant impact on consumer confidence in a financial service website. The results of the study have demonstrated that ease of use has an impact on trust of online consumer. This shows that the ease of use will make customers enjoy, feel comfortable using the product, which makes customers more confident in online transactions.

H6: Online trust have a positive impact on Customer engagement

Trust is often seen important in online environments because there are a lot of risks in online contexts (Van der Heijden et al., 2003). Online trust are created through positive consumer interactions with the online provider's website (Jarvenpaa et al., 2000). The research results show that online customer loyalty has a positive impact on customer

engagement. That means, when a customer trusts a website, it increases the engagement of the customer with the site.

H7: Customer engagement does not impact on e-word of mouth

The results of the study show that customer engagement does not affect their word-of-mouth. When a customer decides to connect a business, one cannot be sure that they will deliver positive business communications, especially in online context. The Internet is altering customers' minds, as it seems easy for them to criticize things, deliver their ideas and make a noise in order to attract the online community or become famous. Therefore, the company might do right things, gain trust from customers and higher level such as engagement, customers do not know that they might spread good words to the online community. Beside that reason, according to Bowden, 2009; Roberts and Alpert, 2010 defined customer engagement in term of it was sometimes used to indicate the highest level of loyalty, rather than positive word-of-mouth. The customer's behavior of the engagement terms included loyalty, participation, action... therefore, this result just finds that in the beginning of Internet era online companies do not have enough time to win the engagement with online customers completely, especially in customer actions as eWOM.

H8: Online trust has a positive impact on e-word of mouth.

EWOM information, also known as electronic word of mouth, is spread by potential, current or former internet users. This type of communication describes a product or business that has positive or negative comments and is widely observed (Thorsten and Walsh, 2004). Soares et al. (2012) argued that trust can affect word of mouth and the exchange of information about products and services. Kassim and Abdullah (2010) clarified this effect and Ridings et al. (2002) showed that trust in customer increased the trend of

information exchange in virtual communities significantly. Research results shows that if a customer trusts a website, they will gain more positive comments on this site.

6. Implication

In theory, research has demonstrated the quality of e-services and online trust that influence word-of-mouth communications. When a website is highly responsive, highly usable, and highly reliable, it will. Online customer loyalty increases engagement and word of mouth. This supports the results of previous studies by Parasuraman (1988), Lee (2005), Zeithaml et al. (2002), Al-Nasser Yosoff et al., 2014, Harris and Goode 2004, and Tran and Tran. 2012, Soares et al. (2012),... Research has also contributed to the integration of the components of e-commerce service quality that influences trust. Components include ease of use, responsiveness, correction, quality assurance, service quality. However, in the study, it is only the assurance of ease of use and responsiveness that have an impact on trust, while the others are not influenced by belief. Therefore, high reliability, ease of use and high responsiveness will increase the trust of customers. The study has helped to confirm the relationship between online trust, the linkage and online oral transmission is based on previous research papers such as Chiu-Ping Hsu, Yi -Fang Chiang and Huang HengChiang - 2012; Doohwang Lee, Hyuk Soo Kim, Jung Kyu Kim, 2012; Soares et al. (2012,58). Online trust engages in EWOM and communication, but through this research we find that engagement does not directly affect word of mouth communication.

In practice, the research has contributed to the development of the website in particular and the business of the enterprises in the e-commerce system of Vietnam. Research has contributed online businesses to identify factors that impact on engagement and word of mouth communication so that businesses can

get timely and specific solutions to increase their relationship. We have good customer relations, and receive good word of mouth from our customers.

7. Conclusion

This research aims to detect the factors that affect the customer engagement and word of mouth communications. The level of impact of vulnerabilities influences engagement and word of mouth communications. Businesses will know factors which are focused on increasing engagement and gaining word-of-mouth communications from customers. This facility helps managers know how the online business enterprise now offers tailored solutions to promote strengths or overcome limitations to increase engagement with positive word of mouth communications from customers.

About the factors and variables observed in the research model: The process of data processing and analysis has been carried out carefully and objectively in four main phases: (1) measured by Cronbach's Alpha coefficient, (2) CFA assay factor analysis and (3) SEM linear model analysis. Finally, the research model was identified, consisting of 26 observational variables. In particular, the prefix group consists of 5 factors (assurance, quality of service, easy to use, satisfy and correct) with 4 variables, 3 variables are quality of services, 3 variables correction factor, 4 variables are responsive and 4 variables are easy to use. The suffixes consist of three elements, namely online belief, attachment and word of mouth communications, with three and two variables respectively.

Relationships between factors in the research model: After analyzing the data using SPSS 20 and Amos 20, the results show that there are two factors that directly influence the online trust of clients. That is the assurance and the responsiveness. In particular, the response has the strongest impact on online confidence (standardized weighting

is 0.399, followed by assurance (0.281). Online belief has a strong impact on customer engagement and communication, as evidenced by the standardized regression of these three relationships, respectively, 0.891, 0.855.

8. Limitations and future research directions

In addition to the results, the research also has the following limitations and future research directions:

The first limitation was in terms of space and time because the research was done in six months, the time was limited, leading to insufficient attention to all issues. Since this topic is only implemented at 10 districts in Ho Chi Minh City, we do not have a chance to survey the target population at the other districts as well as in other provinces.

The second limitation is the limited number of survey samples and funding, it is very difficult to get contact with office staff, as the survey was conducted only in 10 buildings, rooms at 10 districts in Ho Chi Minh City and there is also limited funding so the sample is still relatively small because the RSMSEA index is always smaller than 200.

The third limitation is the restriction on the subject. Research subjects focus on office workers, but many other objects of our study are also potential customers of the e-commerce. Therefore, focusing on only one object has become a limitation of the topic.

The last limitation is about methodology. Due to the limited time and funding, the topic can only perform quantitative research without qualitative research. To help build a better scale.

Through these limitations, research topics also provide the direction for research development as follows: that is to broaden the scope of research. Research should better investigate the differences between audiences about the factors that affect engagement and word of mouth ■

References

- Algesheimer, R., Dholakia, U. M. & Herrmann, A. (2005). The social influence of brand community: Evidence from European car clubs. *Journal of marketing*, 69(3), 19-34.
- Al-Nasser, M., Yusoff, R. Z., Islam, R., & Al-Nasser, A. (2014). Relationship among e-service quality, culture, Attitude, trust, risk of online shopping. *Journal of Social Sciences*, 10(3), 123-142.
- Alreck, P. L., & R. B. Settle (1995). The importance of word-of-mouth communications to service buyers. *Proceedings of American Marketing Association, Chicago, IL: American Marketing Association*, 1(6), 188-193.
- Arndt, J. (1967). Role of product-related conversations in the diffusion of a new product. *Journal of marketing Research*, 4(3), 291-295.
- Bagozzi, R. P. & Dholakia, U. M. (2006). Antecedents and purchase consequences of customer participation in small group brand communities. *International Journal of research in Marketing*, 23(1), 45-61.
- Barnes, S. J., & R. T. Vidgen (2002). An integrative approach to the assessment of e-commerce quality. *Journal of Electron. Commerce Res*, 3, 114-127.
- Barney, J. B. & M. H. Hansen (1994). Trustworthiness as a source of competitive advantage. *Strategic management journal*, 15, 175-190.
- Bickart, B. & R. M. Schindler (2001). Internet forums as influential sources of consumer information. *Journal of interactive marketing*, 15(3), 31-40.
- Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Methods & Research*, 17(3), 303-316.
- Bone, P. F. (1992). Determinants of word-of-mouth communications during product consumption. *ACR North American Advances*, 19(1), 579-583.
- Bowden, J. L. H. (2009). The process of customer engagement: A conceptual framework. *Journal of Marketing Theory and Practice*, 17(1), 63-74.
- Brodie, R. J., et al. (2013). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research*, 66(1), 105-114.
- Brown, J. J. & P. H. Reingen (1987). Social ties and word-of-mouth referral behavior. *Journal of Consumer research*, 14(3), 350-362.
- Cao, C. M., Chen, M. & Wong, T. M. (2005). The KCa channel as a trigger for the cardio protection induced by kappa opioid receptor stimulation—Its relationship with protein kinase, C. *British journal of pharmacology*, 145(7), 984-991.
- Casalo, L. V., Flavián, C., & Guinalú, M. (2007). The role of security, privacy, usability and reputation in the development of online banking. *Online Information Review*, 31 (5), 583-603.
- Chevalier, J. A. & D. Mayzlin (2006). The effect of word of mouth on sales: Online book reviews. *Journal of marketing research*, 43(3), 345-354.

- Chiu.Ping Hsu, Yi.Fang Chiang & Heng.Chiang Huang (2012). How experience driven community identification generates trust and engagement. *Online Information Review*, 36(1), 72-88.
- Chow, W. S., & S. Shi (2015). Investigating customers' satisfaction with brand pages in social networking sites. *Journal of Computer Information*, 55(2), 48-58.
- Corritore, C. L., Kracher, B., & Wiedenbeck, S. (2003). On-line trust: concepts, evolving themes, a model. *International journal of human-computer studies*, 58(6), 737-758.
- Davis, A. & Khazanchi, D. (2007). Does mutual knowledge affect virtual team performance? Theoretical analysis and anecdotal evidence. *American Journal of Business*, 22(2), 57-65.
- Davis, A., & D. Khazanchi (2007). The influence of online word of mouth on product sales in retail e-commerce: an empirical investigation. *AMCIS 2007 Proceedings*, 176.
- Davis, M. (1986). Pharmacological and anatomical analysis of fear conditioning using the fear-potentiated startle paradigm. *Journal Behavioral neuroscience*, 100(6), 814-824.
- De Valck, K., Van Bruggen, G. H., & Wierenga, B. (2009). Virtual communities: A marketing perspective. *Decision support systems*, 47(3), 185-203.
- Dina Ribbink, Allard C.R. van Riel, Veronica Liljander & Sandra Streukens, (2004) Comfort your online customer: quality, trust and loyalty on the internet. *Managing Service Quality: An International Journal*, 14(6), 446-456.
- Dwyer, P. (2007). Measuring the value of electronic word of mouth and its impact in consumer communities. *Journal of Interactive marketing*, 21(2), 63-79.
- Efron, B. (1979). Bootstrap methods: another look at the jackknife *Annals of Statistics*. *The Annals of statistics*, 7(1), 1-26
- Engel, J. F., et al. (1969). How information is used to adopt an innovation. *Journal of Advertising Research*, 9(4), 3-8.
- Fornell, C. & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research*, 18(3), 382-388.
- Gummerus, J., Liljander, V., Pura, M. & Van Riel, A. (2004). Customer loyalty to content-based web sites: the case of an online health-care service. *Journal of services Marketing*, 18(3), 175-186.
- Harris, L. C. and M. M. Goode (2010). Online services capes, trust, and purchase intentions. *Journal of Services Marketing*, 24(3), 230-243.
- Hatcher, P. J., et al. (1994). Ameliorating early reading failure by integrating the teaching of reading and phonological skills: The phonological linkage hypothesis. *Child development*, 65(1), 41-57.
- Hennig-Thurau, T., et al. (2004). Electronic word-of-mouth via consumer-opinion platforms: what motivates consumers to articulate themselves on the internet? *Journal of interactive marketing*, 18(1), 38-52.
- Herr, P. M., et al. (1991). Effects of word-of-mouth and product-attribute information on persuasion: An accessibility-diagnostics perspective. *Journal of consumer research*, 17(4), 454-462.

- Hoang Trong, & Chu Mong Ngoc (2008). *SPSS Research Analysis*, Hong Duc Publishing House.
- Hung, K. H. and S. Y. Li (2007). The influence of eWOM on virtual consumer communities: Social capital, consumer learning, and behavioral outcomes. *Journal of advertising research*, 47(4), 485-495.
- Jarvenpaa, S. L., et al. (2000). Consumer trust in an Internet store, *Information Technology and Management*, 1(1), 45-71.
- Jöreskog, K. G. (1971). Statistical analysis of sets of congeneric tests. *Psychometrika*, 36(2), 109-133.
- Kankanhalli, A., Tan, B. C., & Wei, K. K. (2005). Contributing knowledge to electronic knowledge repositories: an empirical investigation. *MIS quarterly*, 29(1), 113-143.
- Kassim, N., & Asiah Abdullah, N. (2010). The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in e-commerce settings: A cross cultural analysis. *Asia Pacific Journal of Marketing and Logistics*, 22(3), 351-371.
- Koufaris, M., & Hampton-Sosa, W. (2004). The development of initial trust in an online company by new customers. *Information & management*
- Kumar, V. (2013). Profitable customer engagement: Concept, metrics and strategies, *SAGE Publications India*.
- Kumar, V., Pansari, A. (2015). Competitive advantage through engagement. *Journal of Marketing Research In-Press*, 53(4), 497-514.
- Kuo, F. E., & Faber Taylor, A. (2004). A potential natural treatment for attention-deficit/hyperactivity disorder: evidence from a national study. *American journal of public health*, 94(9), 1580-1586.
- Leana, C. R., & Van Buren, H. J. (1999). Organizational social capital and employment practices. *Academy of management review*, 24(3), 538-555.
- Lee, Doohwang, Hyuk Soo Kim, & Jung Kyu Kim (2012). The role of self-construal in consumers' electronic word of mouth (eWOM) in social networking sites: A social cognitive approach. *Computers in Human Behavior*, 28(3), 1054-1062.
- Lee, Y. E., & I. Benbasat (2003). Interface design for mobile commerce. *Communications of the ACM*, 46(12), 48-52.
- Lewis Jr, W. M. (1993). The ecological sciences and the public domain. *American assistant for the advancement of science research and development*, 189, 324-330.
- Lin, H. F. (2011). An empirical investigation of mobile banking adoption: The effect of innovation attributes and knowledge-based trust. *International journal of information management*, 31(3), 252-260.
- Ma, Z., & J. Zhao (2012). Evidence on E-Banking Customer Satisfaction in the China Commercial Bank Sector. *Journal of Software*, 7(4), 927-933.
- McKnight, D. H., et al. (2002). Developing and validating trust measures for e-commerce: An integrative typology. *Information systems research*, 13(3), 334-359.

- Moorman, C., Deshpande, R., & Zaltman, G. (1993). Factors affecting trust in market research relationships. *Journal of Marketing*, 81-101.
- Moorman, C., et al. (1992). Relationships between providers and users of market research: The dynamics of trust within and between organizations. *Journal of marketing research*, 29(3), 314.
- Morgan-Thomas, A. & C. Veloutsou (2013). Beyond technology acceptance: Brand relationships and online brand experience. *Journal of Business Research*, 66(1), 21-27.
- Mortazavi, M., Rahim Esfidani, M., & Shaemi Barzoki, A. (2014). Influencing VSN users' purchase intentions: The roles of flow, trust and eWOM. *Journal of Research in Interactive Marketing*, 8(2), 102-123.
- Oh, J.-C., et al. (2012). A structural approach to examine the quality attributes of e-shopping malls using the Kano model. *Asia Pacific Journal of Marketing and Logistics*, 24(2), 305-327.
- Parasuraman, A., et al. (1988). Servqual: A multiple-item scale for measuring consumer perc. *Journal of retailing*, 64(1), 12.
- Parasuraman, A., et al. (2005). ES-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of service research*, 7(3), 213-233.
- Pavlou, P. A., & M. Fygenson (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. *MIS Quarterly*, 30(1), 115-143.
- Reinartz, W., & V. Kumar (2002). The mismanagement of customer loyalty. *Harvard business review*, 80(7), 86-95.
- Ribbink, D., et al. (2004). Comfort your online customer: quality, trust and loyalty on the internet. *Managing Service Quality: An International Journal*, 14(6), 446-456.
- Richins, M. L. (1983). Negative word-of-mouth by dissatisfied consumers: A pilot study. *The journal of marketing*, 68-78.
- Ridings, C. M., Gefen, D., & Arinze, B. (2002). Some antecedents and effects of trust in virtual communities. *The Journal of Strategic Information Systems*, 11(3-4), 271-295.
- Roberts, C. & Alpert, F. (2010). Total customer engagement: designing and aligning key strategic elements to achieve growth. *Journal of Product & Brand Management*, 19(3), 198-209.
- Royo-Vela, M., & P. Casamassima (2011). The influence of belonging to virtual brand communities on consumers' affective commitment, satisfaction and word-of-mouth advertising: The ZARA case. *Online Information Review*, 35(4), 517-542.
- Santos, J. (2003). E-service quality: a model of virtual service quality dimensions. *Managing Service Quality: An International Journal*, 13(3), 233-246.
- Schumacker, R. E. & Lomax, R. G. (2012). *A beginner's guide to structural equation modeling*. Routledge.
- Semeijn, J., van Riel, A. C., van Birgelen, M. J., & Streukens, S. (2005). E-services and offline fulfilment: how e-loyalty is created. *Managing Service Quality: An International Journal*, 15(2), 182-194.

- Soares, A. M., et al. (2012). From social to marketing interactions: The role of social networks. *Journal of transnational management*, 17(1), 45-62.
- Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate behavioral research*, 25(2), 173-180.
- Sun, T., et al. (2006). Online word of mouth (or mouse): An exploration of its antecedents and consequences. *Journal of Computer Mediated Communication*, 11(4), 1104-1127.
- Teng, S., et al. (2014). Examining the antecedents of persuasive eWOM messages in social media. *Online Information Review*, 38(6), 746-768.
- Tran, P. D., Wong, L. H., Barber, J., & Loo, J. S. (2012). Recent advances in hybrid photo catalysts for solar fuel production. *Energy & Environmental Science*, 5(3), 5902-5918.
- Trusov, M., et al. (2009). Effects of word-of-mouth versus traditional marketing: findings from an internet social networking site. *Journal of marketing*, 73(5), 90-102.
- Van der Heijden, H., et al. (2003). Understanding online purchase intentions: contributions from technology and trust perspectives. *European journal of information systems*, 12(1), 41-48.
- Van Knippenberg, D., & Hogg, M. A. (2003). A social identity model of leadership effectiveness in organizations. *Research in organizational behavior*, 25, 243-295.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.
- Vivek, S. D. (2009). A scale of consumer engagement. The University of Alabama.
- Vivek, S. D., Beatty, S. E., & Morgan, R. M. (2012). Customer engagement: Exploring customer relationships beyond purchase. *Journal of marketing theory and practice*, 20(2), 122-146.
- Yang, J., Zhang, D., Frangi, A. F., & Yang, J. Y. (2004). Two-dimensional PCA: a new approach to appearance-based face representation and recognition. *IEEE transactions on pattern analysis and machine intelligence*, 26(1), 131-137.
- Zeithaml, V. A. (2002). Service excellence in electronic channels. *Managing Service Quality: An International Journal*, 12(3), 135-139.
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2000). Conceptual Framework for understanding e-service quality: Implications for future research and managerial practice.
- Zhu, F., & Zhang, X. (2010). Impact of online consumer reviews on sales: The moderating role of product and consumer characteristics. *Journal of marketing*, 74(2), 133-148.
- Zikmund, W. G., McLeod, R. & Gilbert, F. W. (2003). Customer relationship management: Integrating marketing strategy and information technology. Wiley.