

ELECTRONIC WORD OF MOUTH ON ONLINE SHOPPING

RESEARCH JOURNAL

Presented as Partial Fulfillment of the Requirements

To Obtain the Bachelor Degree in Management Department



A THESIS

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INTERNATIONAL PROGRAM
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UNIVERSITAS ISLAM INDONESIA
YOGYAKARTA
2013**

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Defended before the Board of Examiners
On July, 19th 2013
And Declared Acceptable

Board of Examiners

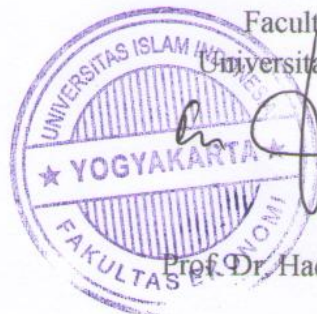
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ELECTRONIC WORD OF MOUTH ON ONLINE SHOPPING

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ABSTRACT

Internet can be accessed whenever and wherever people want to use it, and it becomes part of human life. The internet connection, which in the last days was known as high technology thing, now becomes a normal thing. The needs of human always growth and make the growth of science and technology become high. Internet breaks traditional market in the way people buying things. People cannot just only buy books, t-shirt, and computer stuff are bought online, but also holiday trips and several product and services that was unimaginable to buy in the past. As long as there is internet facility, people can buy things wherever they want to without visiting the store. This fact change buyer mindset to buy things through online shopping.

This research will investigate the influence of site characteristics, customer satisfaction, E-trust, to Electronic Word of Mouth (eWOM) in Online Shopping. Result indicates that site characteristics which: shopping convenience, site design, informativeness, security, communication; customer satisfaction, and trust are positively support eWOM

Keyword: *Site Characteristics, Shopping Convenience, Site Design, Informativeness, Security, Communication, Customer Satisfaction, E-Trust, Electronic Word of Mouth (eWOM)*

ELEKTRONIK WORD OF MOUTH DALAM ONLINE SHOPPING

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ABSTRAK

Internet dapat diakses dimanapun dan kapanpun konsumen ingin menggunakannya. Koneksi internet yang sebelumnya dikenal sebagai teknologi canggih, sekarang berubah menjadi normal. Kebutuhan konsumen terus meningkat dan mengakibatkan pertumbuhan ilmu dan pengetahuan menjadi semakin canggih. Internet merubah cara normal konsumen berbelanja. Tidak hanya membeli buku, baju, dan peralatan computer yang dapat dibeli online, tetapi perjalanan wisata dan beberapa produk dan servis yang tidak pernah dibayangkan untuk terbeli dimasa lampau. Selama disana ada fasilitas internet, konsumen dapat membeli beberapa barang dimanapun dia mau tanpa harus mengunjungi toko. Fakta ini mengubah mindset konsumen untuk membeli barang melalui online

Penelitian ini akan menginvestigasi pengaruh dalam karakteristik situs, kepuasan pelanggan, kepercayaan, terhadap Elektronik Word of Mouth (eWOM). Temuan mengindikasikan bahwasannya karakteristik situs yaitu: Kenyamanan Belanja, Desain Situs, Keinformatifan, Keamanan, Komunikasi; Kepuasan Pelanggan, dan Kepercayaan memiliki efek positif terhadap eWOM.

Keyword: *Karakteristik situs, Kenyamanan Belanja, Desain Situs, Keinformatifan, Keamanan, Komunikasi, Kepuasan Pelanggan, Kepercayaan, Elektronik Word of Mouth (eWOM)*

INTRODUCTION

Internet breaks traditional market in the way people buying things. People cannot just only buy books, t-shirt, and computer stuff are bought online, but also holiday trips and several product and services that was unimaginable to buy in the past. As long as there is internet facility, people can buy things wherever they want to without visiting the store. This fact change buyer mindset to buy things through online shopping.

Based on Chung and Shin (2010), there are important attribute for customer as follows: shopping convenience, site design, informativeness, security, and communication. In general shopping convenience is how customers buying product or service in easy ways. Maybe it contains catalog or kind of bunch of picture in slide show. Site design should also be interesting to use. Big company like Twitter, Facebook, and Kaskus, use several ways in changing their design to support customer navigation. Content quality makes customer attached to the site, for example Google phenomena. This search engine becomes free encyclopedia for a whole people in the world because of its information.

While doing online transaction, privacy should be maintained. High level of security leads to customer satisfaction. Today online transaction become most common transaction in information and technology era, so this is should be concerned by web developer. Furthermore, to gain feedback from customer, there should be 2 ways communication. Maybe website developer can make system or leave the phone number in the web, so the company will receive good feedback from customer if there is complain.

Empirical studies shows that site characteristic have a high correlation with customer satisfaction (Chung and Shin, 2010). This finding strengthened past research stating that shopping convenience (Myers and Wimsat, 2012), site design (Chang and Wang, 2011),

informativeness (Gounaris, Dimitriadis, and Stahtakhopolos, 2010), security (Ranjbarian et al, 2012), communication (Chung and Shin, 2010) are related to customer satisfaction.

Subsequently, those findings can be good information for online customer to develop their own websites. Overall evaluation of performance to date, affective commitment captures the trust and reciprocity in a relationship, and calculative commitment captures the existence of switching costs or lack of practical alternatives lead to customer satisfaction (Gustafsson et al, 2005). Empirical study shows that customer satisfaction is positively related to trust (Kassim and Abdullah, 2010) and Word of Mouth (Raneweera and Prabhu, 2003). Kim (2009) stated that trust is found to have positive influence on customers' intention to spread positive WOM.

LITERATURE REVIEW

Electronic Word of Mouth (eWOM)

In terms of affective identification, since the service industry is an industry of trust and experience, when consumers produce affective identification, they will love to share their experiences with their friends and relatives. That is, WOM behavior will be produced, Chu and Li (2010)

The temptation is strong for marketers to try to “create buzz” through viral campaigns and other forms of “word of mouth marketing.” However, it is not clear how productive these activities really are. As we have discussed, WOM is complex phenomenon and generally not something that can be controlled directly, Allsop and Hoskin (2007)

Word-of-mouth based URL discovery, including its impact on URL popularity, dependence on users with a large number of followers, and effect on the diversity of information discovered by users (Rodrigues et al, 2011)

Add by Gauri and Rao (2008), all the attributes, positive customer reviews have the greatest impact on repurchase intention. Interesting finding by Bouchard (1994), if agent perform some active modifications of the information spreading on the network, they generate a social value of information. In the context of a firm seeking to spread information about its product, this social value can be thought as the valuation that agents inform about the product by talking to each other, without any intervention. Such valuation can be positive, or negative, depending on how information is modified.

If an individual's stays with an organization because of likelihood, then any WOM communication that takes place should be spread. In opposite, high sacrifice commitment of individual, no significant impact on information spreading. As predicted, those people who sacrifice will act passively with an organization. When data tested in veterinary industry, the level of perceived service quality positively affect satisfaction or an individual WOM communication. Moreover, when service quality resulted low. In other words, consumers are more likely to engage actively in WOM communication when service quality is low. It is maybe an attempt to warn other and protect them from experiencing similar problem with the service provider (Walker, 2001)

There is new concept drive through growing up information and technology, Electronic word of mouth is a concept that has seemed to grow by leaps and bounds over the past decade (Tiana, 2011). E WOM affects behavioral intention, Kamtarin (2012). There exist some other levels in eWOM studies, such as product class, industry, strategy, and else, believed by Cheung and Thadani (2010)

Another word from Litvin et al., (2005) stated that early step of e WOM appears to customer with combining offline techniques for managing interpersonal influence (i.e., stimulating and creating opinion leaders).

Another Studied by Chen (2011), found another three findings, First, this study indicates that loyalty is influenced electronic significantly and positively by word-of-mouth. Second, satisfaction influences directly on loyalty and is the indirect influencer of loyalty via electronic word-of mouth. Finally, technology readiness plays an important role in forming satisfaction, electronic word-of-mouth, and loyalty. And, technology readiness is the most motivator of loyalty in this study. Chen (2011)

Site Characteristic

Many years ago, development of website has growth rapidly. The change of paradigm from the product-oriented shaped into customer-centered websites drives competition among organization making site to attract customer. Several authors made research about site characteristic. Tarafdar and Zhang (2005) identified four characteristic. The first is about the content of the information in the website, the information should be relevant to the purpose of the website, easy to read and comprehend, useful, acceptable, and up-to-date. The second is the Navigation in using the website, in term of design, layout, and classification. It also includes the effectiveness of hyperlinks and overall organization information, so these characteristics affect the user in navigating the website. The third is the website should be easy to use, it should be design to application that associated with it with effective portion. Like to use graphics, multimedia, and other interactive elements, that makes the website interesting and easy to use. The last is providing personalization and capability to customized information based on specified

groups of customer, such as the “one click” feature or “My Yahoo” will help customers to easily return to specific information and easy to interact with website.

Another past research by Kim and Ahn (2006) stated that site characteristics of a Website owned by firm would only use the website as communication media to its customers. Usability includes interface consistency, time responds, and interaction styles are included as other considerations besides security. They are regarded as proof of the company capability to fulfill its promises to customer trust. Security in this study is the perception of how secure customer transaction in a particular website

Related on table of Tan, Tung, and Xu, following website characteristics in past literature:

Theory Perspective	Major Constructs	Reference
TAM Theory Acceptance Model	<u>Ease of use</u> Product Search Mechanisms, Challenges, Visual representation, Customized design, Navigation, Interactivity, Response time, Ease of understanding, Consistent image, Intuitive operations <u>Usefulness</u> Functional service, Information service, Content, Access Costs, Perceived information quality, Perceived system quality, Perceived service quality, Tailored information, Informational fit-to-task, , On-line completeness <u>Perceived Playfulness</u> Perceived visual attractiveness, Emotional appeal, Visual appeal, Perceived enjoyment,	[Benbunan-Fich 2001], [Moon and Kim 2001], [Koufaris 2002], [van der Heijden 2003], [Lee and Lee 2003], [Shih 2004], [Kim and Stoel 2004], [Loiacono et al. 2007], [Ahn et al. 2007]
	Presentation flaws, Site breadth, Download	[Palmer 2002], [Hong et al. 2004],

HCI Human Computer Interaction	Delay, Flash use, Information format, Recommendations system, consumer reviews system, Personalized content services, Website Informativeness, Functionality, Structure, Navigation/Organization, Interactivity, Responsiveness, Information/Content, Promotion, Service, External interpersonal sources, Purchase facilitation, Content relevance, Text, Graphic, Website Accessibility	[Hong et al. 2005], [Everard and Galletta 2005], [Song and Zahedi 2005], [Tam and Ho 2006], [Webster and Ahuja 2006], [Galletta et al. 2006], [Kumar and Benbasat 2006], [Liang et al. 2006], [Mithas et al. 2006], [Pavlou et al. 2007], [Mu and Galletta 2007], [Holsapple et al. 2005], [Couture et al. 2005], [Qiu and Benbasat 2005], [Ho and Tam 2005], [Ben-Bassat et al. 2006], [Zhang et al. 2005]
Integrated Frameworks	Relevance, Media use, Depth/breadth, Current information, Goals, Structure, Feedback, Promotion, Community, Personalization, Refinement, Challenge, Plot, Character strength, Pace, Design, Appearance, Specific content, Content quality, Technical adequacy, Navigation structure, Playfulness, Information quality, System quality, Service quality, Relevance, Design, Speed, Readability, Progressiveness, Currentness, Sufficiency, Interactivity, Timeliness, Scope, Access, Enjoyment, User empowerment, Visual appearance, Technical support, Organization of information content, Credibility, Impartiality, Reliability, Security, Privacy, Informational Fit-To-Task, Tailored Information, Trust, Response Time, Ease Of Understanding, Intuitive Operations, Visual Appeal, Innovativeness, Emotional Appeal, Consistent Image, On-Line Completeness, Relative Advantage	[Huizingh 2000], [Liu and Arnett 2000], [Zhang and von Dran 2000], [Zhang and von Dran 2001], [Geissler 2001], [Agarwal and Venkatesh 2002], [Aladwani and Palvia 2002], [McKinney et al. 2002], [Ranganathan and Ganapathy 2002], [Robbins and Stylianou 2003], [Venkatesh and Ramesh 2006], [De Wulf et al. 2006], [Fang and Holsapple 2007], [Loiacono et al. 2007], [Shergill and Chen 2005], [Hornbat 2006], [Mao et al. 2005]

Hence, all past research in site characteristic, many result found and used to acquire another future research, since the methodology, and concept used is different. Finally, centered to Chung and Shin (2010), this research will identify important factor through customer, they are shopping convenience, site design, informativeness, security, communication.

Shopping Convenience

Based on Kathleen and Leopard (2000), The demand for more useful shopping reflects several trends, including increasing numbers of women in the labor force and consumer perceptions of limited time. Because working women normally keep family management responsibilities, useful alternatives to traditional routines like shopping have become a lesser amount of a luxury and more of a necessity. Park et al (2010), added that shoppers who have tendencies toward sensory innovativeness are tending to show hedonic shopping styles such as brand consciousness, recreational orientation, fashion consciousness, impulsive shopping and habitual/brand loyal orientation.

Lim & Dubinsky (2004) stated that web sites should ease customers to use it, to receive order confirmations via e-mail, including information about shipping, returns, and order tracking numbers, and facilitate order processing. In the other hand, the mobile internet technology has opened new shopping experience by offering easy use for shoppers to do internet-enabled mobile phone subscription. This is additional benefits that include convenience, ubiquity, flexibility, and personalization, Yang (2010)

In the same research, Myers and Wimsat (2012), found similar result like Chung and Shin (2010), that shopping convenience has positive impact on customer satisfaction

Thus, the following hypotheses presented as:

H1. Shopping Convenience will have positive effect on customer satisfaction.

Site Design

Interaction with customer will probably happen to this site characteristic thing. Electronic commerce on the internet is increasing the commercial use of website and the need for using website. Well-designed website will become more critical in the way customer bought. As the time goes by, development of website are ongoing activities or not a “one-off project”, it needed continuous improvement to see how appropriate creation and management of website itself (Clyde, 2000).

Sung, Shaw and Schneider, (2003), explain website design becomes a critical success factor. Consumer interacts through website layout and appearance, which reflect the business. Consequently, it may become one of the main factors in judging how corporation was.

Next, the numbers of online consumers are rapidly growing. It appear that user prefer to use local website to foreign website. Although there are financial costs associated with web site localization, if online customers are more trusting, satisfied, and loyal to web site, then the benefits can be expected (Cry, Kindra, and Dash, 2008)

Chang and Wang (2011) said that website design is an important dimension, because it affects both customer satisfaction and consumer perceived value. Szymanski & Hise (2000)

emphasized that there should be positive correlation between web design and customer satisfaction.

Therefore, the proposed hypothesis is;

H2: Site Design will have positive effect on customer satisfaction

Informativeness

Based on Zhang, Tarafdar, and Mondieepa (2006), for information related websites such as News & Information websites, Search Engines & Portals, information quality, usability, ease of navigation and speed are the most important characteristics. It is because user should find relevant, meaningful, and appropriate information in surfing on the Internet.

Simple and relatively information has shape to dynamic and multimedia based content. The amounts of information increase rapidly; make finding the right useful information difficult (Tarafdar and Zhang, 2008). Easy example, the Google's phenomena as search engine. The relevance and accuracy of information of search result determine the success of website.

Another research conduct by Gullikson etc. in 1999 stated that lack of navigational aids and labeling concepts affect usability of website. Difficulty of interpreting and navigating the menu structure lead to dissatisfaction with the site.

By all statement above, it can be concluded that informativeness is important in website development. Gounaris, Dimitriadis, and Stahtakhopolos (2010) emphasized that information is one of key drivers that affect significantly satisfaction from e-shopping.

Therefore, the proposed hypothesis is;

H3: Informativeness will have positive effect on customer satisfaction

Security

Security of web sites is a major concern not only for the library industry, but also for other industries and governments. Kuzuma, (2010) in her research said that managerial act such as performing periodic audits and risk assessment can help determine which systems are most vulnerable and need to be secured by librarian staff, because growing threats in websites are fast.

Mentioned by over 36 respondent in research conducted by Miyazaki et al, (2001) that security of personal and financial information is top concern of security. Lower risk security can be solved by increasing level of internet experience, higher level of internet experience higher concern on online privacy. As e-commerce has grown so have concerns of online consumer privacy, the protection of consumer information are nature of online communication (Bashear et al, 2008).

Financial security in online transaction becomes popular topic in e-commerce. Consumer decision to buy online would concern on the security level. Online security plays an important role in e-satisfaction (Szymanski & Hise, 2000). Research conducted by Maditinos and Theodoritis (2010) that there is specific strong effect that product and service information quality as well as user interface quality and security perception have on overall satisfaction

Therefore, in line with research done by Ranjbarian et al, (2012), there is positive relationship between security and e-Satisfaction

Therefore, the proposed hypothesis is;

H4: Security will have positive effect on customer satisfaction

Communication

Scientific communication on the web is starting point for further investigation to know how good web publication on scientific field (Seiden et al, 2004). Some websites selected each communication through several ways, like e-mail address, direct phone number, and physical address. However, email can be used to inform new product development or offerings, and special purchasing incentives (i.e., discounts, coupons). In online environment, shoppers would look into trusted site, and good strategies around website communication will rise the opportunities for gaining interaction with customer.

Since communication is an important web site strategy, online vendor that openly interact with customers may gain more trustworthy. The communication variable is found to be the second strongest predictor of website trust (Wakefield et al, 2004). Web is a powerful customer communication channel that can be implemented in various industries (Knezevic et al, 2011). Higher industries are implementing web more often than smaller one, but there is interesting finding in Knezevic research that companies in Bulgaria, Slovenia, Greece, and Romania are less interactive than companies of Croatia and Turkey in implementing web as an important and vital part of their customer communication strategy. Even though those four countries are member of EU and the rest are not.

Based on statement above, and in line with Chung and Shin (2010), it is found that communication will have positive effect on customer satisfaction.

Therefore, the proposed hypothesis is;

H5: Communication will have positive effect on customer satisfaction

Customer Satisfaction

Customer satisfaction is an overall evaluation of performance to date, affective commitment captures the trust and reciprocity in a relationship, and calculative commitment captures the existence of switching costs or lack of practical alternatives (Gustafsson et al, 2005)

Smith and Bolton (2003), found that service failure would directly affect emotion on customer satisfaction. They will react to service failures in trusting or believing service (e.g. financial, legal, medical, and service) may be even more emotion troubled than their reaction in hospitality industry. Additionally there is evidence that quality, value, and satisfaction directly influence behavioral intentions (Cronin et al, 2000)

Above all statement above, there is positive linkage between website satisfaction, website trust, and website loyalty in the development of the online brand relationships (Horpu et al, 2008). Next, in line statement by Kassim and Abdullah, 2010 that customer satisfaction is positively related to trust.

In contrast, dissatisfied customers who complained to the marketer are potentially bring negative Word of Mouth (WOM). In some case, complaining also has the ability to reduce dissatisfaction by allowing unhappy customers to say their anger and frustration (Nyer and Gopinath, 2005)

Subsequently, research conducted by Ranaweera and Prabhu (2003) found that satisfaction and trust also have significant positive effect on WOM.

The following hypotheses presented as:

H6: Customer Satisfaction will have positive effect on Trust

H7: Customer Satisfaction will have positive effect on WOM

Trust

Education to the employee in the context of big industries plays important role. Employee enrolment, clear and strict standards operation procedures will lead to customer trust. Therefore, training should be held and prepared outside daily business. This delivers a chance to build trust based on credibility in the so-called “moments of truth” (Kantsperger and Kunz, 2010)

In the mobile phone case, as far as trust is concerned, potentially negative attitude may happen between past reactions and nowadays such as marketers who negatively sending bad text message. Hence, there will be negative relationship because the same text format is less preferable (Al alak and Alnawas, 2010).

Meanwhile in online site, Mosavi and Ghaedi (2012) found that as trust increase, commitment tends to get stronger. Because positive relationship between trust and commitment found, once trust is establish, customers are tend to commit themselves to website. Added by Zhu et al, (2011), trust does influence customer attitudes and behavioral intentions. Easy-operation website sustains consumer confidence in online purchasing and in trust.

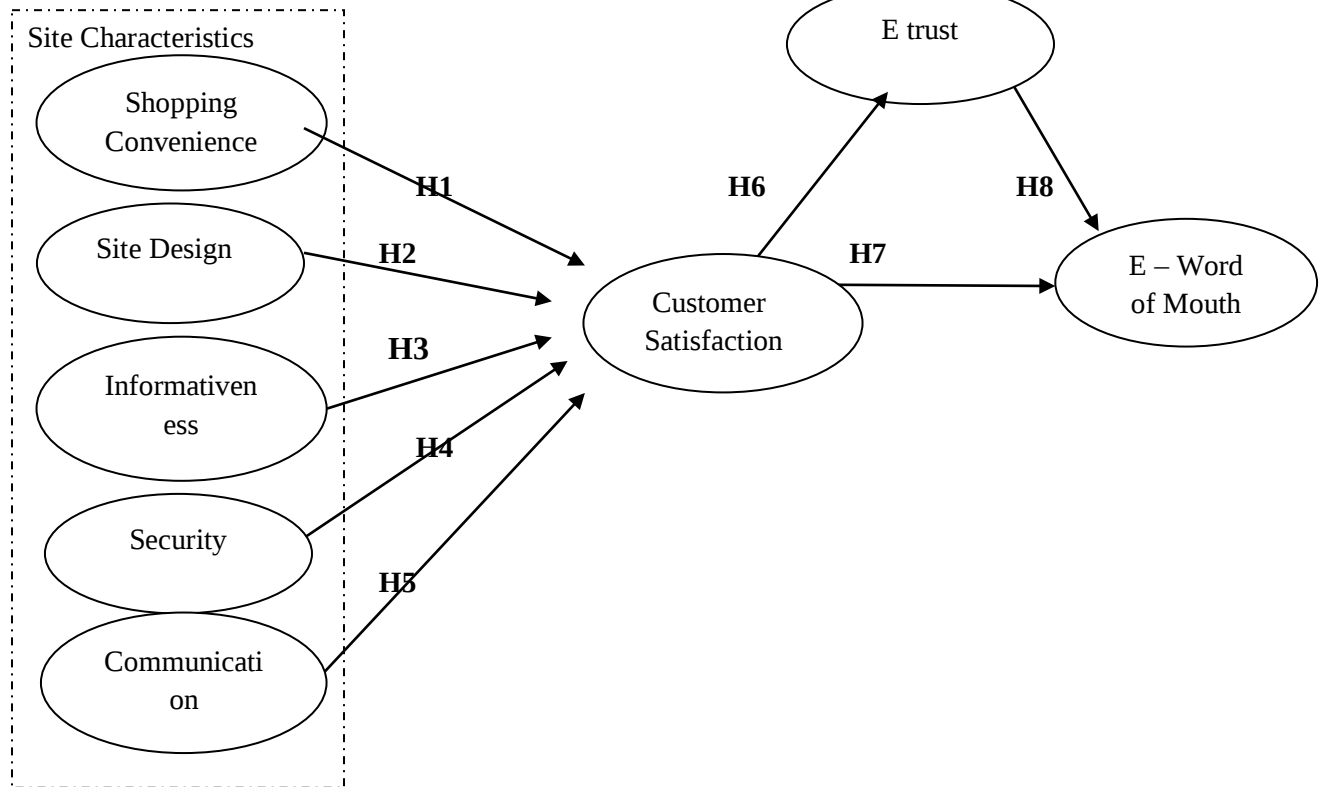
However, trust is found to have a positive influence on customer’s intentions to spread positive WOM. Apart from dealing with Negative WOM, former relationship with company will keep loyal customer on company. Meanwhile customers who have not had an opportunity to build trust toward company will be more easily influenced by NWOM (Kim, 2009 Goles et al, (2009) added that affect-based trust affected intentions to repurchase and intentions to engage in negative WOM communications more than cognition-based trust.

In contrast, Trust affect positively to WOM (Ranaweera and Prabhu, 2003).

Therefore, the proposed hypothesis is;

H8: Trust will have positive effect on WOM

Conceptual Framework



RESEARCH METHOD

The research is located in Daerah Istimewa Yogyakarta specifically in Universitas Islam Indonesia including all faculties. The background in choosing this area because the student in this university is varied, and information and technology era that used internet, and represents the consumers who have done online shopping. Subjects will be asked about their experience in online shopping or running their own website. Total sample in this research is 300 people. It is relates to minimum requirement on Structural Equation Modeling which 100 units (Ghozali, 2008)

Data collection method used for this research is questionnaire. It is flexible and relatively easy. It contains questions related to each variable construct. Close and open question may be used in this method. In this research, researcher used close question

Measurement Model

Measurement model analysis used to test unidimensionality from indicators, which explain factor or single latent variable. Every indicator tested at the same time to show how strong the dimension from each factor. Indicator to be used is T-value from each parameter and significant score. Holmes-Smith (2001) stated that $\alpha = 0, 05$ parameter which have t of 1, 96 is significant or valid. However significant value above 0.05 counted as unidimensionality from a factor that tested.

Table 1:
t values and Level of Significant

Item	<i>t-value</i>	<i>p-value</i>	Result
SC1	1	-	<i>Valid</i>

Item	<i>t-value</i>	<i>p-value</i>	Result
SC2	15.224	0.000	<i>Valid</i>
SC3	16.306	0.000	<i>Valid</i>
SD3	1	-	<i>Valid</i>
SD2	13.571	0.000	<i>Valid</i>
SD1	11.749	0.000	<i>Valid</i>
I4	1	-	<i>Valid</i>
I3	12.641	0.000	<i>Valid</i>
I2	18.267	0.000	<i>Valid</i>
I1	16.839	0.000	<i>Valid</i>
S4	1	-	<i>Valid</i>
S3	23.940	0.000	<i>Valid</i>
S2	19.925	0.000	<i>Valid</i>
S1	18.096	0.000	<i>Valid</i>
Com4	1	-	<i>Valid</i>
Com3	12.955	0.000	<i>Valid</i>
Com2	13.398	0.000	<i>Valid</i>
Com1	11.103	0.000	<i>Valid</i>
CS1	1	-	<i>Valid</i>
CS2	20.659	0.000	<i>Valid</i>
CS3	19.875	0.000	<i>Valid</i>
T1	1	-	<i>Valid</i>
T2	20.548	0.000	<i>Valid</i>
T3	22.074	0.000	<i>Valid</i>

Item	<i>t</i> - value	<i>p</i> -value	Result
T4	19.814	0.000	<i>Valid</i>
eWOM1	1	-	<i>Valid</i>
eWOM2	19.525	0.000	<i>Valid</i>
eWOM3	19.928	0.000	<i>Valid</i>

Source: *Structural Equation Modeling (SEM)*, 2012. Data computed.

Goodness of Fit

There are no single statistic tools to measure the hypothesis in SEM. Researcher can do the test using several goodness of fit index to see well and bad in a variable and also the truth in tested model (Hair et al, 1998). Furthermore, there is several goodness of fit index and cut off value, which is used in this research.

Chi Square (χ^2). This test measures the differentiation between matrix covariance populations with matrix covariance sample. Based on Ho, in the research there is same result between two matrixes. Good model accepted if chi square are low and have probability with cut-off value more than 0, 05 (Holmes, 2001)

The Root Mean Square Error of Approximation (RMSEA). This test used to compensate chi-square statistic in a bigger sample. RMSEA shows goodness of fit from estimated model in population. Model accepted if RMSEA score $\leq 0, 08$ (Brown and Cudeck, 1993).

The Goodness of Fit Index (GFI). GFI is analog with value of R^2 in double regression (Tabachnic, 2001). Goodness of Fit Index used to measure weighted proportion from variance in

matrix covariance sample that explain from estimated matrix population. Scale value GFI from 0 until 1, if more than 0.09 shows good models (Joreskog and Sorbom, 1996)

Tucker Lewis Index (TLI). This test is alternative incremental for index that compare tested model through baseline model. Recommended value for accepted model is $\geq 0,90$ and if closer to 1, shows that have very good model (Hair et al., 1998).

The Comparative Fit Index (CFI). This test relate with TLI, suggested to be used in research model because this index relatively not sensitive with sample value and not influence with model complexity. Range value CFI is from 0 until 1. Good model have $CFI \geq 0.95$, though above 0.09 is accepted (Holmes, 2001)

Table 2:

Goodness of Fit Index Result

Constructs	χ^2	RMSEA	GFI	TLI	CFI	Result
SC	92.265	0,078	1,000	1.000	1,000	Good
SD	73.236	0,066	1,000	1.000	1,000	Good
I	13.071	0,036	0,979	0,953	0,984	Good
S	12.448	0,032	0,981	0,965	0,988	Good
Com	63.261	0,018	1,000	1.000	1,000	Good
CS	81.664	0,030	1,000	1.000	1,000	Good
T	1,483	0,055	0,998	1.002	1.000	Good
eWOM	30,000	0,018	1,000	1.000	1,000	Good

Sources: *Structural Equation Modeling (SEM)*, 2012. Data computed.

Test result and Reliability

Validity is measurement level that reaches an indicator in measure construct model or in a simple way can be explain as legitimate measurement for measured one (Anderson and Gerbing, 1988). Researcher recommend to do validity test or unidimensionality through every construct indicator which include in research model before assess reliability itself.

Researchers tested the validity of any observed variables or indicators of convergent validity approach. Convergent validity of the measurement models can be found by determining whether each indicator is estimated validly measure the dimensions of the concept tested. An indicator showed significant convergent validity indicator variable if the coefficient is greater than twice its standard error (Anderson and Gerbing, 1988) or have a critical ratio greater than two times the standard error (Ferdinand, 2002). AMOS program version 6 also provides the facility assess convergent validity by examining critical or T Value of each indicator. If criteria $t \geq 1.96$ value indicator, the indicator is significant at $\alpha = 0.05$ level (Holmes-Smith, 2001).

Furthermore, Joreskog and Sorbom (1996) add that GFI index of 0.90 shows that the measured indicators are valid and unidimensionality of the construct being tested. Of all the CFA calculation as has been reviewed in assessment of goodness of fit and modification of the model, it appears that all constructs were tested as follows: Site Characteristics, Customer Satisfaction, E-Trust, and E-Word of Mouth, all of which have GFI index of 0.90. It shows that these indicators are valid or unidimensionality of the construct being tested so it is worth to test the hypothesis proposed in this study.

Reliability is a measurement of internal consistency of the indicators in a construct that indicates the degree of the ability in each indicator. Indicate a common construct or it can simply be said to be a level of consistency and stability of a measuring instrument (Ferdinand, 2002). In SEM there are several statistical tests to test the reliability of the construct is the construct reliability and variance extracted.

In this study, construct reliability was tested using the construct reliability approach by calculating the reliability index of instruments used SEM models are analyzed. Construct reliability is obtained by the formula Fornell and Laker's (1981) follows:

$$\text{Construct Reliability} = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + \sum \varepsilon_i}$$

Where, λ_i = Standard loading each indicator (*observed variable*)

ε_i = measurement error of each indicator ($1 - \text{reliability indicator}$).

Tab 3:

Result of validity each Variable

Indicator	λ_i	ε_i	Result	<i>Construct Reliability</i>	Result
Shopping Convenience					
SC1	0.858	0.068	Valid	0.835	Reliable
SC2	0.783	0.054	Valid		
SC3	0.819	0.053	Valid		
Site Design					
SD1	0.716	0.063	Valid	0.781	Reliable

SD2	0.793	0.056	Valid		
SD3	0.776	0.071	Valid		
Informativeness					
I1	0.856	0.079	Valid	0.870	Reliable
I2	0.929	0.095	Valid		
I3	0.673	0.056	Valid		
I4	0.786	0.061	Valid		
Security					
S1	0.769	0.077	Valid	0.896	Reliable
S2	0.823	0.060	Valid		
S3	0.916	0.058	Valid		
S4	0.913	0.082	Valid		
Communication					
C1	0.708	0.065	Valid	0.826	Reliable
C2	0.834	0.073	Valid		
C3	0.859	0.064	Valid		
C4	0.708	0.068	Valid		
Satisfaction					
CS1	0.858	0.061	Valid	0.905	Reliable
CS2	0.896	0.063	Valid		
CS3	0.891	0.072	Valid		
Trust					
T1	0.848	0.086	Valid	0.921	Reliable
T2	0.893	0.078	Valid		
T3	0.926	0.073	Valid		
T4	0.873	0.060	Valid		

WOM					
eWOM1	0.867	0.055	Valid	0.883	Reliable
eWOM2	0.893	0.053	Valid		
eWOM3	0.873	0.076	Valid		

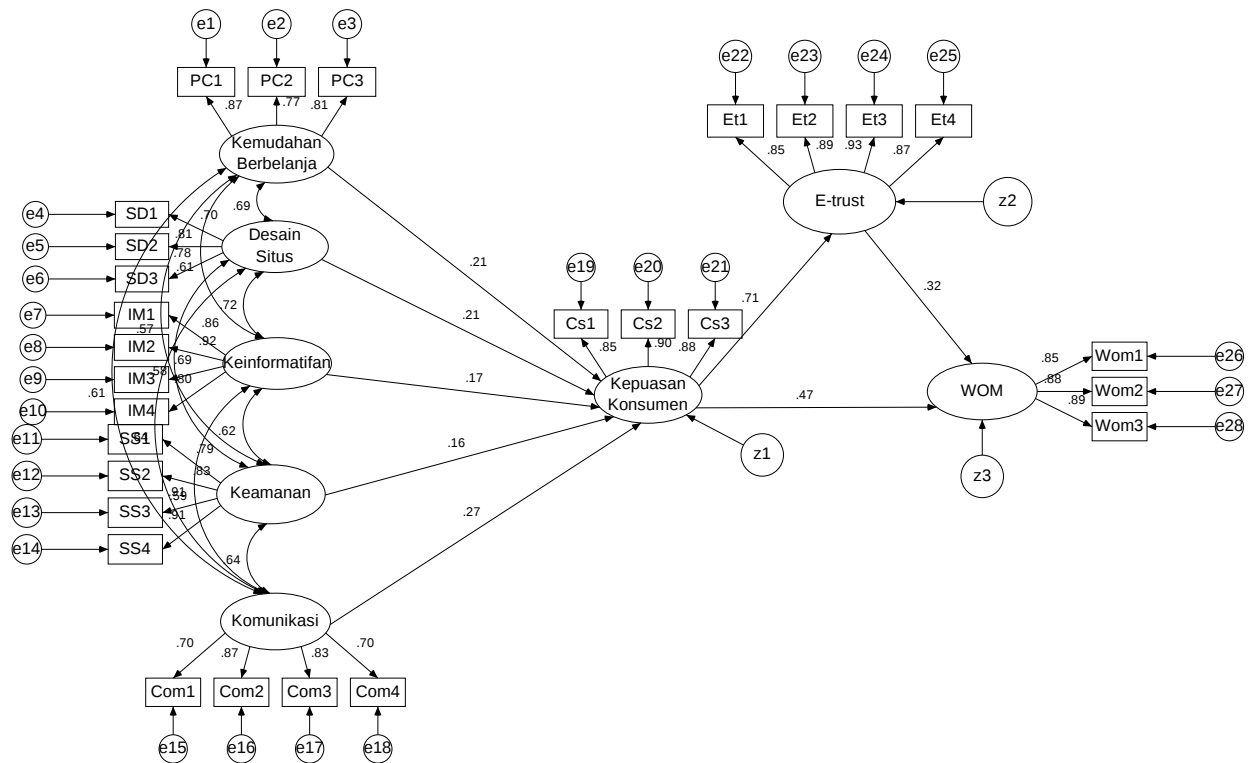
Source: *Structural Equation Modeling (SEM)*, 2012. Data computed.

Table 4.10 Based on the above it can be seen that the statistical probability > 0.50 , and all of the questions in the questionnaire on the items in question in WOM variables, Trust, Customer Satisfaction and site characteristics in the system on-line shopping $< \text{Level of significant} = 0.05 \text{ is valid. That the coefficient of Construct Reliability} > 0.60$ so that all the questions in the questionnaire on the question items on WOM variables, Trust, Customer Satisfaction and site characteristics in the system on-line shopping are reliable.

Structural Equation Analysis

Analysis tools used in this study is Structural Equation Model (SEM). This analysis tool is used to determine whether shopping convenience on-line will have a positive effect on customer satisfaction, whether site design will have a positive effect on customer satisfaction, whether informativeness online shopping will have a positive effect on customer satisfaction, whether shopping security on-line will have a positive effect on customer satisfaction, whether business communication in online shopping a positive effect on customer satisfaction, whether the customer satisfaction will have a positive effect on trust, whether customer satisfaction will have a positive effect on the Word of mouth, and whether trust will have a positive effect on the Word of mouth?

This is picture of *Structural Equation Model (SEM)* :



Picture 1

Structural Model

Table 4
result

Hyphotesis	Regression Line	Coefficient Regression	Standard Error	t-value	Prob.	Result
H ₁	SC – CS	0.214	.059	3.328	0,000	Significant
H ₂	SD – CS	0.210	.078	2.612	0,009	Significant
H ₃	I – CS	0.175	.067	2.655	0,008	Significant
H ₄	S – CS	0.158	.045	2.812	0,005	Significant
H ₅	COM – CS	0.269	.066	4.208	0,000	Significant
H ₆	CS – T	0.706	.066	12.185	0,000	Significant
H ₇	CS – eWOM	0.473	.087	6.558	0,000	Significant
H ₈	T - eWOM	0.325	.074	4.651	0,000	Significant

Source : *Structural Equation Modeling (SEM)*, 2012. Data computed.

Based on calculations using the computer program AMOS 6.0, showing result that the probability value between shopping convenience for customer satisfaction, sites design for customer satisfaction, informativeness towards customer satisfaction, on-line shopping security to the satisfaction customers, communication to customer satisfaction, customer satisfaction to trust, customer satisfaction to Word of Mouth, and trust to word of mouth < level of significant = 0.05, so that all the influential variables.

CONCLUSIONS

To further clarify statement above, conclusions obtained from the results of research conducted and suggestions will be outlined as follows:

1. Linear regression analysis results indicate that the value of the probability-statistic = $0.000 < \text{Level of Significant} = 0.05$, it was concluded that there is significant influence between shopping convenience to customer satisfaction. So the hypothesis ease of online shopping has a positive effect on customer satisfaction supported
2. Linear regression analysis results indicate that the value of the probability-statistic = $0.009 < \text{Level of Significant} = 0.05$, it was concluded that there is significant influence between the site design in on-line shopping site to customer satisfaction. So the site design hypothesis in shopping on-line has a positive effect on customer satisfaction supported
3. Linear regression analysis results indicate that the value of the probability-statistic = $0.008 < \text{Level of Significant} = 0.05$, it was concluded that there is significant influence between informativeness on online shopping to customer satisfaction. Therefore, the hypothesis of informativeness has a positive effect on customer satisfaction supported.
4. Linear regression analysis results indicate that the value of the probability-statistic = $0.005 < \text{Level of Significant} = 0.05$, it was concluded that there is significant influence between the security of on-line shopping to customer satisfaction. Therefore, the hypothesis of security in shopping on-line has a positive effect on customer satisfaction supported.
5. Linear regression analysis results indicate that the value of the probability-statistic = $0.000 < \text{Level of Significant} = 0.05$, it was concluded that there is significant influence

between communication in online shopping to customer satisfaction. Therefore, the hypothesis of communication in on-line shopping has a positive effect on customer satisfaction supported.

6. Linear regression analysis results indicate that the value of the probability-statistic = 0.000 < Level of Significant = 0.05, it was concluded that there is significant influence between the customer satisfaction to trust. Therefore, the hypothesis of consumer satisfaction in shopping on-line has a positive effect on trust supported.
7. Linear regression analysis results indicate that the value of the probability-statistic = 0.000 < Level of Significant = 0.05, it was concluded that there is significant influence between customer satisfaction on WOM. Therefore, the hypothesis of consumer satisfaction in shopping on-line has a positive effect on eWOM can supported.
8. Linear regression analysis results indicate that the value of the probability-statistic = 0.000 < Level of Significant = 0.05, it was concluded that there is significant influence between trust to the WOM. Therefore, the trust hypothesis in shopping on-line has a positive effect on eWOM communication supported.

RECOMENDATIONS

First: The results of the characteristics of the site, which involves a series of five attributes, namely: shopping convenience, site design, informativeness, security, and communications are being the factor of how customer satisfies in doing online shopping. Customer satisfaction is very important because the determining factor in the decision making shopping on-line. Next, after customer satisfies, the next level will be in trust, more customer trust to the site, and so it will have good effect on how image of website through eWOM. The

results are very different in each site characteristics. Further improvement can combine each variable to get higher customer satisfaction, trust, and good image spread on eWOM.

Second: In this study, researchers focused only on five attributes characteristic of the site, for a subsequent study suggested that adding attributes characteristics site that may have any other attributes. So the result is expected to add a further increase consumer satisfaction in shopping on-line, then this will affect the trust and will relate to positive eWOM.

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