The Impact of Website Quality on Information Quality, Value and Loyalty Intentions on E-commerce Website

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Abstract

The growing of internet industry and e-commerce website, then the website is very important role in business activities. E-commerce company that has experienced began to realize that the main determinant of success is not just to have a website and provide lower prices of goods, but also provide e-commerce website service quality.
In this research will study the influence of website quality on the quality of the information provided, perceived value as well as the intention to loyal customers (loyalty intentions) of the e-commerce website. Theoretical approach used methods Webqual^tm methods where the variable quality of the website that will be studied is composed of Interactivity, Online Completeness, Easy of Use, Entertainment and Trust. Data were analyzed by Structural Equation Modeling to show a significant degree by the variable quality of the information.
Having conducted a survey of 410 respondents, the results of data processing showed that the quality of the website simultaneously significant effect on the quality of information. Each variable quality website significantly influence the quality of information. Information quality significantly influence the perceived value (value), and the value positive effect on loyalty intentions. Based on description analysis note that online completeness is a factor that need to be improved. While the factors that most affect the quality of information is entertainment

Keyword : Website Quality, Information Quality, Value, Loyalty Intentions, E-commerce

1. Introduction

The continued development of internet technology, the Internet became a media make the most economical and popular for running a business, which is more known by the term e-commerce.

Blanja.com is joint venture cooperation between Ebay and PT.XYZ with the aim of building a digital ecosystem in Indonesia. Digital ecosystem involves three aspects, Device, Network, and Application, or known as DNA. Blanja.com presence in the realm of e-commerce industry in addition to rake in revenue and also to educate the market of e-commerce to the community. The type of business e-commerce conducted by Blanja.com Marketplace site is commonly known by the Customer to Customer (C2C), which is a business model where the customer can sell the goods on the website and its market share also is the individual customer. In C2C business , all online transactions facilitated by Blanja.com, such as listing items, purchases, payments, and customer service. With the rapid development of Internet users in Indonesia and the potential of e-commerce businesses are expected to continue to grow, encouraging the emergence of competitors who go into business marketplace. Starting from Small Medium Enterprice scale business, then developed into a large business with the support of investors from within and outside the country. These are the marketplace websites that currently has to exist and develop in Indonesia : Bukalapak, Tokopedia, Elevenia dan Qoo10

Based on the indicators of the number of visitors, time of access, the number of pages accessed, and the degree of bounce rate, blanja.com is in the lowest position compared to a competitor's website. While the customer review of Blanja.com is "Very Low". Some of the reviews are known to the user's problem is related to the website quality(34.15%), value (17.07%), information quallity(9.76%) and loyalty (24.39%)

2. Problem Statement

From the exposure of the background of the problem, then the problem formulation of this study are as follows:
- With the blossoming of e-commerce business in Indonesia, PT.XYZ and Ebay agreed to build e-commerce business with a vision to become the number one e-commerce in Indonesia. However, based on existing indicators, Blanja.com website has a low traffic levels, fewer long access time, number of pages accessed and the bounce rate is slightly higher than the 4 marketplace website (C2C) other competitors.
- Based on the review given the customer related to the quality of services provided by Blanja.com note that a review of services provided has a rating that is the lowest when compared to competitor websites with 1.4 rating scale of 5
- Based on the literature review and related research, as far as the author's knowledge there has been no study conducted to measure the impact of website quality on the quality of information, and the impact on the value and loyalty intentions, on Blanja.com.

3. Research Framework

3.1. Consumer Behaviour

Consumer Behaviour is the study of how individuals, groups, and organizations select, buy, use, and dispose of goods, services, ideas, or experiences to satisfy their needs and wants, Kotler & Keller (2012), Factors that influence consumer behavior, according to Kotler (2012) are: Cultural factors, Social factors, Personal factors

3.2. Customer Perceived Value

Customer perceived value is the difference between the perspective customer's evaluation of all benefits and all the costs of an offering and the perceived alternatives" Kotler (2012:60). Based on such understanding, it can be concluded that the consumer perceived value is an assessment of consumers conducted by comparing the benefits / advantages that will be accepted by the sacrifices incurred to acquire a product / service. However, the

consumer perceived value can also mean business consumers compare products / services of a particular company with a rival company in terms of benefits, quality, price.

3.3. Customer Loyalty

According Gommans et al in Puspitasari et al (2013) e-loyalty based on the value proposition, brand building, trust and security, website and technology, and customer service. In the context of e-commerce, e-satisfaction and confidence impact on e-loyalty. Therefore it can be concluded that a loyal customer is a customer who has the confidence to online shop and buy repeatedly and committed to the products offered though it was faced with several options competitors' products. In addition, loyal customers will refer the product to the surrounding environment.

Griffin in Puspitasari et al (2013) divides the loyalty into four (4) types, namely:
- Without loyalty, customers do not develop loyalty to a particular product or service
- Weak loyalty, low attachment combined with a high repeat purchases generate loyalty weak (intertia loyalty).
- Hidden loyalty, relatively high level of preference combined with a low level of repeat purchases show loyalty hidden (latent loyalty).
- Premium Loyalty, is the most loyalty can be improved, occurs when there is a high level of attachment and repeat purchase rate is also high.

3.4. E-Commerce

E-commerce according Laudon & Laudon (2014), is "a process of buying and selling electronic products by consumers and from company to company with a computer as an intermediary for business transactions".

Meanwhile, according to Kalakota and Whinston (1997) E-commerce can be reviewed in the following four perspectives:
- Communication Perspective, e-commerce is the delivery of goods, services, information, or payments over computer networks or via other electronic equipment.
- Business process perspective, e-commerce is the application of technology to the automation of business transactions and workflow.
- Service perspective, e-commerce is a tool that meets the needs of companies, consumers, and management to cut service costs (service cost) while improving the quality of goods and improve the speed of service delivery.
- Online perspective, e-commerce provides the ability to buy and sell goods and information through the Internet and other online means.

Laudon (2014) divided into three types of e-commerce, namely:

- *Business to Consumer* (B2C), involving products sales and services at retail to individual buyers.
- *Business to Business* (B2B), involving products sales and services between companies.
- *Consumer to Consumer* (C2C), involving consumers who sell directly to customers.

Lukman, E (2014) devided the type of e-commerce business in Indonesia into:

Table 1.E-commerce Type

No	E-commerce type	Example
1	Classified ads	Kaskus, OLX, Jualo
2	Marketplace / Customer to Customer (C2C)	Tokopedia, Bukalapak, Elevenia, Qoo10, Blanja
3	Shopping Mall	Blibli, MatahariMall
4	Business to Customer (B2C)	Bhinneka, Lazada, Berrybenka, Bilna, Zalora, Mapemall
5	Social Media Online Shop	

3.5. Website Quality

In the e-commerce business, the main interface on the online retail is website. So the performance of the website such as the quality of the website and customer perceived quality of information is a very important thing to attract people and, more importantly, retain them as loyal customers. Website quality may significantly impact e-commerce success (Li, Daugherty, and Biocca 2001) as it signals users with messages about the firm's financial performance (Watkins and Smith 2008). Siegel (2007) suggests that in order to be successful, websites should provide extensive information in a digestible format and well-designed navigation and ease of operation are essential for an effective website.

Rayport and Jaworski in Kotler and Keller (2009: 249-250) said that an effective website design elements featuring seven called 7C, namely:

- Context ; layout design
- Content ;teks, picture, voice, and video in website.
- Community; communication among users.
- Customization; the ability of website to deliver information to the various users or allow users to personalize the site.
- Communication; how the site allows communication with the user; users with the site; or two-way communication.
- Connection; the degree of relationship the site with other sites.
- Commerce, the ability of the site to allow for commercial transactions.

Kim and Niehm (2009: 222) divided website quality in to five dimensions include:

- Information, including the quality of content, usefulness, completeness, accuracy and relevance
- Security , including trust, privacy and security
- Easy of use (Ease), includes easy to operate, easy to understand, and speed
- Enjoyment (Leisure), including visual appeal, emotional appeal, creative and attractive design
- Service Quality (Quality of service), covering the completeness online, and customer service.

3.6. Webqual^{TM}

Some emerging research methods to examine the effect of website quality on the success of e-commerce websites. One of the methods used include WebqualTM method, developed by Loiacono et al (2002). WebqualTM is the development of the Theory of Reasoned Action (TRA) and the Technology Acceptance Model (TAM).

In the Theory of Reasoned Action (TRA), which are widely used in marketing research and information systems, stating that individuals evaluate the consequences of certain behaviors and create the intention to perform actions that are consistent with their evaluation (Loiacono et al, 2002).

While the Technology Acceptance Model (TAM) was first introduced by Fred D. Davis (1986), an adaptation of Technology of Reason Action (TRA) developed from the Theory of Reasoned Action or TRA. TAM main objective is to provide a basic search the influence of external factors on beliefs, attitudes, and goals of users. (Adiwibowo et al, 2009). Davis implement the TRA for class behavior can be defined as "the use of computer technology," and produced the Technology Acceptance Model (TAM), one of the methods most widely cited in Research MIS (Venkantesh, 2000, in Loiacono et al, 2002).

3.7. Framework of Thinking

The framework of this research is based on the relationship between variables with the explanation of the relationship as follows

3.7.1. **Relationship between Website Quality and Information Quality**

E-retailers reap advantages from websites to give their customers direct access to product information and to

sell products. Therefore, information is a fundamental part of websites and information quality is considered amarketing tool to guarantee the smooth execution of transactions in online shopping (Xu dan Koronios at Kim dan Niehm (2009)

Quality is an attribute of a product/service, which indicates how well it meets consumers' needs (Nagel dan Cilliers 1990 dalam Kim dan Niehm, 2009). Perceived quality reflects the judgment and evaluation that consumers make about product/service quality based on their needs and, therefore, is similar to attitude (Zeithaml, 1988 at Kim dan Niehm, 2009). Researchers have suggested that fundamental information quality dimensions include accuracy (Baullou and Pazer 1982; Liu and Arnett 2000; Miller 1996), relevancy (Liu and Arnett 2000; Miller 1996; Salaün and Flores 2001), accuracy, completeness, security, format (Liu and Arnett 2000; Miller 1996), accessibility (Miller 1996; Salaün and Flores 2001), timeliness (Salaün and Flores 2001), consistency (Baullou and Pazer 1982), coherence, comparability (Miller 1996), and understandability (Salaün and Flores 2001).

Hypothesis : Website quality is positifely related to information quality

3.7.2. Relationship between Information Quality and Value

Perceived value includes a "get" component (i.e., the benefits buyers acquire fromseller's offering, such as products or services) and a "give" component (i.e., the costs the buyers pay for acquiring the offering, including monetary and non monetary costs) (Parasuraman dan Grewal 2000; Zeithaml 1988) dalam Kim dan Niehm (2009).

Parasuraman dan Grewal (2000) at Kim dan Niehm (2009) proposed four types of perceived value, based on previous literature,:

- Acquisition value implies the benefits of getting by acquiring a product or service
- Transaction value refers to the pleasure from a good deal
- in-use value means utility experienced from the actual use of the product
- Redemption value involves other benefits at the moment of the transaction (for products) or termination (for services).

While online shopping is capable of having great impact on all of these value components (Grewal et al. 2003), the current study focuses specifically on transaction value (i.e., monetary value), considering that the ability to conduct price comparisons is regarded as the most significant advantage among Internet users (Wallace 1995).Value components may be directly or indirectly evaluated or experienced through information provided by the websites (Grewal et al ,2003 at Kim and Niehm, 2009).

Hypothesis : Information Quality is positively related to Value

3.7.3. Relationship between Information Quality and Loyalty Intentions

In online shopping, e-loyalty or website brand loyalty refers to consumers' cognitive, affective, and behavioral reactions and favorable attitudes toward the site and its brands that results in repeat buying and patronage behaviors (Holland and Baker 2001; Srinivasan, Anderson, and Ponnavolu 2002). Cognitive loyalty refers to loyalty toward a brand, depending on information about the particular brand. Affective loyalty implies customers' liking or positive attitudes toward a brand. Behavioral intention refers to commitment to purchase (Oliver 1999). Customer loyalty is one of the most important drivers of success in e-retailing (Reichheld and Schefter 2000) and has been found to directly influence sales.

Hypothesis : Information Quality is positively related to Loyalty Intentions

3.7.4. Relationship between Value and Loyalty Intentions

Perceived value is a major determinant of post-purchase consumer behaviors, such as loyalty intention, revisit intention, word-of-mouth (Dodds, Monroe, and Grewal 1991; Parasuraman and Grewal 2000; Tam 2004; Yang and Peterson 2004), and repurchase intentions (Dodds, Monroe, and Grewal 1991;Patterson and Spreng 1997). In addition, loyal consumers tend to seek alternative retailers less often (Dodds, Monroe, and Grewal 1991). When perceived value is lower, consumers are more likely to switch to competing retailers in order to enhance perceived value, therefore decreasing loyalty.

Hypothesis : Value is positively related to Loyalty Intentions

3.8. Hypothesis

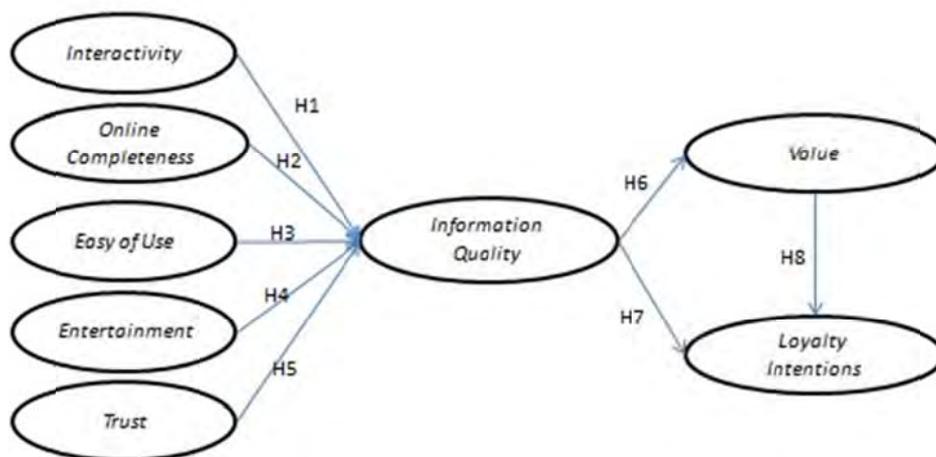Fig.1 Research Model

Based on the theoretical framework that has been described above, then the hypothesis in this study are:

H1 :   Interactivity is positively related to information quality
H2 :   Online completeness is positively related to information quality
H3 :   Easy of use is positively related to information quality
H4 :   Entertainment is positively related to information quality
H5 :   Trust is positively related to information quality
H6 :   Information quality is positively related to value
H7 :   Information quality is positively related to loyalty intentions
H8 :   Value is positively related to loyalty intentions
H9 :   Website quality is positively related to information quality

4. Data Processing and Discussion

4.1. Outer Model Result

Table 2. Outer Model Results

Variabel	Indikator	Outer Loading	AVE	Communality
Interactivity	IN01	0,930	0,869	0,869
	IN02	0,935		
	IN03	0,931		
Online Completeness	OC01	0,908	0,812	0,812
	OC02	0,921		
	OC03	0,873		
Easy of Use	EU01	0,822	0,815	0,815
	EU02	0,913		
	EU03	0,907		
	EU04	0,908		
	EU05	0,924		
	EU06	0,923		
	EU07	0,920		

Entertainment	EN01	0,938	0,885	0,885
	EN02	0,944		
	EN03	0,944		
	EN04	0,948		
	EN05	0,947		
	EN06	0,922		
Trust	TR01	0,935	0,897	0,897
	TR02	0,955		
	TR03	0,951		
Information Quality	IQ01	0,919	0,869	0,869
	IQ02	0,936		
	IQ03	0,941		
	IQ04	0,940		
	IQ05	0,948		
	IQ06	0,947		
	IQ07	0,884		
	IQ08	0,944		
Value	VA01	0,949	0,899	0,899
	VA02	0,948		
	VA03	0,947		
Loyalty Intentions	LI01	0,943	0,872	0,872
	LI02	0,935		
	LI03	0,921		
	LI04	0,946		
	LI05	0,924		

Convergent Validity of Test Results outer loading values obtained all indicators that were presented in the statement item has a value> 0.70. While the value of Average Variance Extracted (AVE) all variables> 0.50 and communality values> 0.5 so that it can be concluded that all the indicators and variables meet the test of convergent validity. And based on the value of cross loading, the largest being the constructs formed. It can be concluded that the indicators meet the discriminant validity study.

4.2. Construct Reliability Test

Reliability tests performed to prove the accuracy, consistency, and accuracy of instruments to measure the construct. In PLS-SEM using SmartPLS software to measure the reliability can be done in two ways, by Cronbach's Alpha and Composite Reliability. The following table shows the results of testing the reliability of the construct:

Table 3. Construct Reliability

Variabel	*Cronbach's Alpha*	*Composite Reliability*
Interactivity	0,924	0,952
Online Completeness	0,884	0,928
Easy of Use	0,962	0,969
Entertainment	0,974	0,979
Trust	0,942	0,963
Information Quality	0,978	0,982
Value	0,944	0,964
Loyalty Intentions	0,963	0,971

Based on the reliability test results, it can be seen the value of Cronbach's Alpha and Composite Reliability all variables> 0.70, so it can be concluded that all indicators constructs are reliable or meet the reliability test.

4.3. Hypothesis Result Test

Table 4. Hypothesis Test

	Path Coefficient	**T-value**
Interactivity -> Information Quality	0.084611	2.101399*
Onl Completeness -> Information Quality	0.085751	2.034661*
Entertainment -> Information Quality	0.406422	6.992291
Easy of Use -> Information Quality	0.167234	3.036661
Trust -> Information Quality	0.245215	5.245322
Information Quality -> Value	0.849702	42.563733
Information Quality -> Loyalty Intentions	0.474305	8.523900
Value -> Loyalty Intentions	0.480168	8.899858

While the results of arithmetic R-Square to find out is as follows :

Table 5. *R-Square*

Variabel Dependen	*R-Square*
Information Quality	0,8626
Value	0,7220
Loyalty Intentions	0,8426

5. Conclutions and Suggestions

5.1. Conclutions

- Based on descriptive analysis, note that the user blanja.com give judgment "high" to the overall variable Interactivity (72.8%), Online Completeness (70.3%), Easy of Use (75.3%), Entertainment (73.9 %), Trust (77.4%), Information Quality (73.8%), Value (76.1%), and Loyalty Intentions (73.8%), that's indicates good customer perception of the overall variables that exist in this research.
- Based on the hypothesis testing all variables significantly influence the quality of website information quality with the path coefficient values as follows: Entertainment has the most impact with the value (0.406), followed by the Trust (0.245), Easy of Use (0.167), Online Completeness (0.086), and Interactivity (0,085)
- Information Quality has significant effect on Value with the path coefficient of 0.850
- Information Quality has significantly effect on Loyalty Intentions with path coefficient value 0.474
- Value has has significantly effect on Loyalty Intentions path coefficient value 0,480
- The model that used in this study has a value of R-Square Information Quality of 0,8625, Value (0.722) and Loyalty Intentions (0.8426), thus concluded this model can be used to predict the effect of website quality on the quality of information and its impact on the value and loyalty intentions. Where the variable quality of the website (Interactivity, Online Completeness, Easy of Use, Entertainment, and Trust) affects 86.2% of variable Information Quality, Information Quality variable variable affects 72.2% Value, Information Quality and Value variables affect amounted to 84,26% Loyalty to variable Intentions

5.2. Suggestions

- Based on the descriptive analysis and statistical tests that have been conducted, five variable quality website, proved influential on Information Quality, Information Quality variables affect the Value and Loyalty Intentions, as well as the effect on the Value Loyalty Intentions. Meanwhile the lowest descriptive value of website website is online completeness, as well as to the results of t-test were used to determine the level of significant, the results are the lowest compared to other variables.

This result shows that the needs and interests of users can not be met by Blanja.com. It is suggested that blanja.com to sell more kinds of goods or services in accordance with the needs and desires of visitors.

- This study was previously conducted and variables that are used do not differ from the study. To be more benefit from this research, it is recommended to add important variables such as the reputation of the company, website service, which are likely to affect the level of loyalty intentions of the users of e-commerce website

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