

E-COMMERCE; THE NEW PHENOMENON AND HOW TO BE SUCCEED IN MARKETPLACE

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Abstract: This study aims to measure the factors that influence the satisfaction of Brodo e-commerce web users. The growth of e-commerce is also in line with the rapid use of the internet over the last 10 years. Brodo is one of the local businesses that was founded in 2010 and started to use the website address Bro.do as a means for consumers to choose their products easily. This research is descriptive research with a survey method. The independent variables of this study are usability (X_1), information quality (X_2), service interaction quality (X_3), and the dependent variable is User Satisfaction (Y). The research object is Brodo e-commerce web users as many as 100 respondents. The results of the study show that the usability or usability value of e-commerce web applications has an influence on User Satisfaction. The R^2 value of this study was 0.463. Meanwhile the results of the partial t test show that only variable X_1 (Usability) influences User Satisfaction with a significance value of $0.000 < \alpha$ (0.05). While the other variables X_2 and X_3 have no effect on user satisfaction with a significance value of 0.314 and 0.953 respectively $> \alpha$ (0.05).

Keywords: *web assessment; webqual; e-commerce; marketplace*

Submitted: 2024-09-18; Revised: 2024-11-28; Accepted: 2024-12-04

1. Introduction

Business during the pandemic experienced disruption or very radical changes. This cannot be separated from consumer purchasing behavior which has shifted from offline to online. Online platform businesses have experienced an extraordinary increase over the last 2 years. Especially during the pandemic with restrictions, consumers prefer to buy online. Research (Santoso, 2020) revealed that there was an increase in online business during the pandemic by up to 50%. This shows that there are extraordinary changes related to business platforms.

Meanwhile, the massive use of the internet in the last 10 years has also had a big influence on product marketing behavior. Research (Shabrina, 2019) reveals that the digital marketing revolution has changed consumer purchasing behavior. This means that there is a change in the sales strategy and media used in both marketing and selling the product. Digital-based sales then become commonplace. This is in line with what was researched by (Irmawati, 2011) which revealed an increase in the use of marketplaces for sales advice and product promotion.

The growth of e-commerce is also in line with the rapid use of the internet over the past 10 years. According to (Aditiya, 2017), e-commerce is basically used to win business competition. Apart from that, e-commerce is also used as a means of marketing products to

satisfy customers. Research conducted by (Ilyas et al., 2020) shows that customer satisfaction is formed from brand awareness, thereby increasing customer purchasing intentions. Meanwhile, purchase intention which is formed from satisfaction in purchasing the product is formed from the experience during purchase. This is in line with research (Kurniawati et al., 2018; Rusniantoro et al., 2018; Wibisono & , 2016) which reveals that customer satisfaction is formed from the experience of purchasing the product. One experience of buying products is online services via websites or e-commerce.

Customer experience when buying products online (e-commerce) requires companies or producers to have supporting tools, namely e-commerce. A study conducted by (Andry et al., 2018) revealed that every company that has high-quality e-commerce has innovative features that provide a better consumer shopping experience. Thus, website quality becomes a norm in doing business using e-commerce. The correlation between the two researched by (Andry et al., 2018) shows that Jd.Id e-commerce customer satisfaction is influenced by the quality of the website or e-commerce owned by Jd.Id. Bro.do has tried to provide customers with an online purchasing experience through e-commerce tools since it was first launched. Bro.do is the leader in the use of e-commerce in every product sale to date. So, when there was a shift in purchasing behavior from offline to online during the pandemic, Bro.do was very ready more than 10 years ago.

Brodo is a local business that was founded in 2010 and began using the website with the address Bro.do as a means for consumers to choose their products easily. Purchasing products from Brodo itself can only be done through their official website and several collaborating marketplaces, so this study will evaluate the quality of website services based on end users using the WebQual 4.0 method.

When Brodo was first formed in 2010, they marketed their products through partnerships with several distros and retailers. Then in 2011 Brodo started marketing its products online via the Facebook and BBM platforms. When using this media, customers must first ask Brodo whether there is still stock of the desired item and color and when making payment the customer must also send proof of transfer via BBM. By marketing its products like that, Brodo often ends up experiencing miscommunication because the stock of goods cannot be monitored in real time and centrally. Therefore, Brodo finally launched a website where consumers no longer need to bother checking whether this product exists or not, because the website display provides detailed and real time information.

This research will examine and analyze the quality of the Bro.do e-commerce website to measure the extent to which Bro.do's e-commerce is able to provide customer satisfaction. The method used in this research is WebQual which focuses on three indicators, namely usability, information quality, and service interaction quality. The data collection method uses primary data in the form of a questionnaire distributed online. The respondents used in this research were 200 site visitor respondents. The analysis technique used in this research uses quantitative descriptive with SPSS v.22 linear regression statistical calculations. The final output of this research is a website development model contained in a regression equation which will be explained in the form of a website development strategy narrative.

2. Research Method

This research is survey research which will collect some data to obtain and generalize. So in the end this research basically aims to obtain appropriate opinions. In the initial stage of the research, primary data was collected with the help of a questionnaire. This data comes from respondents who filled out a list of questions given by researchers to respondents. Filling out

the questionnaire is an effort to obtain initial data from direct sources to photograph the phenomena that occur.

The variables used in this research are 3 (three) independent variables, namely usability (X_1), information quality (X_2), and service interaction quality (X_3). Meanwhile, the dependent variable in this research is Customer Satisfaction (Y). The population of this research is customers of Brodo brand shoes in the research period (during the last year) who have purchased, visited both workshops and the Brodo website. The sample for this research consisted of 100 respondents who were collected through the help of a questionnaire. According to (Sugiyono, 2004) a questionnaire is a set of written questions used to collect data. The questions created in this questionnaire have been prepared systematically to be addressed to certain respondents.

2.1. Conceptual Framework

Based on the theoretical study above, it can be described as a basic assumption that customer satisfaction for Brodo brand shoes is influenced by Usability (X_1), Information Quality (X_2) and Service Interaction (X_3).

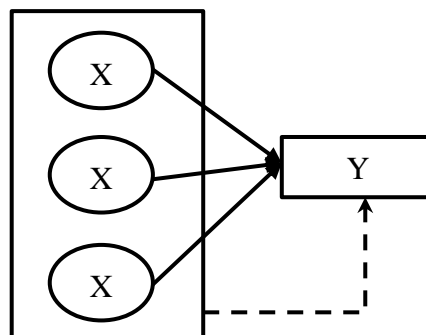


Figure 1 Conceptual Framework

The Regression Model used in this research is: $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$ where:

X_1 = Usability Quality

X_2 = Information Quality

X_3 = Service Interaction Quality

Y = User Satisfaction

α = Constant

β_1, β_2 , and β_3 = regression coefficients

2.2. Research Hypothesis

The hypothesis of this research is as follows:

H_1 : Usability influences Brodo e-commerce user satisfaction.

H_0 : Usability has no effect on Brodo e-commerce user satisfaction.

H_2 : Information Quality influences Brodo e-commerce user satisfaction.

H_0 : Information Quality has no effect on Brodo e-commerce user satisfaction.

H_3 : Service Interaction Quality influences Brodo e-commerce user satisfaction.

H_0 : Service Interaction Quality has no effect on Brodo e-commerce user satisfaction.

H_4 : Usability, information quality, and service interaction together influence Brodo e-commerce user satisfaction.

H_0 : Usability, Information quality, and service interaction together have no effect on Brodo e-commerce user satisfaction.

3. Results and Discussion

3.1. Results

This research uses 3 variables to form satisfaction. The three variables referred to in the Webqual model are usability (X_1), information quality (X_2), and service interaction quality (X_3). The variable X is called the independent variable which can be used to measure the level of satisfaction of website users. The survey conducted on 100 (one hundred) user respondents and visitors to the Brodo website will be measured both partially and jointly. The partial test uses the t-statistic test, meanwhile, the F test (simultaneous) is used to test the independent variables (X) together. The findings from this analysis are useful for Brodo for making decisions related to developing the website or e-commerce that Brodo is currently using. The basis for the decision in the F test is to compare the alpha degree (α) with the significance value obtained. The basis for F test decisions can also use Fcount and Ftable values. The assumption used is that if $F_{count} > F_{table}$ then the proposed hypothesis can be accepted. Conversely, if the value of $F_{count} < F_{table}$, then the proposed hypothesis is rejected. The tests mentioned above refer to the ANOVA table below:

Table 1. Annova

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.637	3	9.212	27.547	.000 ^b
	Residual	32.104	96	.334		
	Total	59.741	99			

a. Dependent Variable: User Satisfaction

b. Predictors: (Constant), Usability, Information Quality, Service Interaction Quality

Source: SPSS v.25 data processed

The significance value of this research as explained in Table 1 ANNOVA above is 0.000. This value can be explained that the independent variable (X) of this research which is represented by usability, Information Quality, and Service Interaction Quality has an influence on user satisfaction of users and visitors to the Brodo e-commerce website. Meanwhile, testing using Fcount shows the Fcount value is 27.547. Meanwhile, Ftable with a significance level of 5% for 100 respondents uses the formula $F(k; n-k) = F(3; 97) = 2.70$. The Ftable results as explained in the formula are 2.70 or smaller than Fcount (27.547). The conclusion that can be drawn is that H_1 is accepted and H_0 is rejected.

Usability (X1), Information Quality (X2), and Service Interaction Quality (X3) on Simultaneous User Satisfaction

F testing is carried out basically with the aim of finding and explaining models of various types of dependent variables. The F test carried out in this research also refers to the regression coefficient table below:

Table 2. Regression Coefisient

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.680a	.463	.446	.578	1.959

a. Predictors: (Constant), Usability, Information Quality, Service Interaction Quality

b. Dependent Variable: User Satisfaction

Source: SPSS v.25 data processed

The R^2 value of this research is as explained in Table 2. The Regression Coefficient shows the number 0.463. These results can be interpreted as meaning that the regression model in the independent variables can explain 46.3% of the dependent variable. If the R^2 value is too small, then the resulting model is too weak to explain the dependent variable. On the other hand, if the R^2 value is large enough, even close to 1, then the independent variable is able to explain more than the dependent variable. The independent variables in this study, represented by usability, Information Quality, and Service Interaction Quality, were able to explain 46.3%. Meanwhile, the other 53.7% are other variables that are not in the focus of the research. Meanwhile, the partial test for each independent variable in this study uses the t test. The assumptions and basis for the decisions used are the significance value of each test. If the significance value of each variable is less than 0.05 then H_1 is accepted and H_0 is rejected. Conversely, if the significance value of each independent variable is greater than 0.05, then H_1 is rejected, H_0 is accepted. The t test in this study refers to the table below:

Table 3. t-Test Statistic

Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1 (Constant)	.486	.423		1.149	.253
X1 (Usability)	.693	.079	.691	8.829	.000
X2 (Information Quality)	.095	.094	.083	1.012	.314
X3 (Service Interaction)	-.005	.092	-.005	-.059	.953

a. Dependent Variable: User Satisfaction

Source: SPSS v.25 data processed

Table 3 The statistical t test above can explain that the significance value of the variable X_1 (Usability) is $0.000 < 0.05$ so that H_1 is accepted, H_0 is rejected. Meanwhile, variables X_2 (Information Quality) and X_3 (Service Interaction) are respectively 0.314 and 0.953 or greater than 0.05. So that the two variables do not meet the basic assumptions or H_2 and H_3 are rejected and H_0 is accepted. The basis for the second test decision is to compare tcount and ttable. The calculated value of Meanwhile, the t-count value for each variable X_2 and In other words, H_2 and H_3 are rejected and H_0 is accepted. The conclusion that can be drawn from this t test is that only variable X_1 (usability) has an effect on user satisfaction.

The partial t test mentioned above is basically to find out the extent to which each independent variable influences the dependent variable. The constant value in this study based on table 3 above is 0.486. The values in the table can be explained that if all the X variables in this study have a value of 0 (null), then the increase in user satisfaction will be 0.486. Meanwhile, the coefficient value of X_1 is 0.693, so for every 1 (unit) increase in the variable X_1 , user satisfaction will increase by 0.693. Likewise with the variable X_2 with a coefficient value of 0.095, then for every effort to increase X_2 by 1 (unit), user satisfaction will increase by 0.095. Meanwhile, the X_3 coefficient is -0.059, so for every effort to increase X_3 by 1 (unit), user satisfaction will increase by -0.059.

3.2. Discussion

Usability (X_1) on User Satisfaction (Y)

Usability in this research refers to the usability value of tools in online shopping. This research found the fact that the usability value of an online shopping support tool has a big influence on user satisfaction. Brodo website users who have an e-commerce platform prioritize the usefulness of this tool in transactions. These uses include ease of use and access to those with high security value. This research also reinforces research (Satar et al., 2019) which revealed that the usability value of an online shopping tool is much more useful than other feature offerings.

The usability value of an e-commerce based website is closely related to customer psychology. Online shopping customers will prioritize ease in using these facilities. This is also confirmed by research (Irmawati, 2011) that the use of e-commerce in the business world must prioritize user convenience. Apart from that, the level of security contained in e-commerce can also guarantee that users are safe using it. This research reinforces the study conducted (Giao, 2020) where e-commerce customer satisfaction is influenced by the level of ease of the tools used.

So one suggestion that can be considered is to create a user-friendly e-commerce website with a high level of security. This also confirms studies conducted (Anjani & Santoso, 2018; Lupi & Nurdin, 2016) where one of the conveniences of e-commerce users is legal guarantees if problems arise at any time. This legal protection must still be considered considering that e-commerce platforms have become platforms that are commonly used in online transaction activities. This research also underlines studies conducted (Mumtahana, Hani Atun, Nita & Tito, 2017; Pratama & Darma, 2014) that the level of usability of the e-commerce web is the key to success in online business.

Usability is even more important because this is related to the ease of users operating the Brodo e-commerce website. Apart from that, usability also ensures that the e-commerce application used is easy for even novice users to learn. This research supports studies conducted (Dachyar & Banjarnahor, 2017; Triandini et al., 2015) where one of the efforts to increase e-commerce user satisfaction is to increase ease of use and how to use it. On the other hand, this research contrasts with several studies (Andry et al., 2018; Faizal & Prasetyo, 2020; Jundillah et al., 2019) where in their research, usability did not have an influence on website user satisfaction e-commerce.

Information Quality (X_2) on User Satisfaction (Y)

Information quality in this research refers to the concept that quality information is information that can provide benefits to its users. Likewise, the information provided on the Brodo e-commerce website, the information provided has been designed to provide clear, accurate, timely and up-to-date information according to user needs. This research found an interesting fact that the quality of information has no influence on the satisfaction of Brodo e-commerce web users. This research seems to counter what has been researched by (Abdu'a & Wasiyanti, 2019; Sucipto, 2021) where the information provided by online business providers is very important for users. This is also confirmed by (Hernawan et al., 2021) that one of the factors supporting consumer purchasing decisions is the presence of complete and accurate information.

The dimensions of information quality in this research can basically be summarized into 3 of 7 dimensions. These three dimensions of information quality are the dimensions of time, content and form of information. The time dimension in this research refers to the recency of

the information provided. Based on research (Rusniantoro et al., 2018) the value of the up-to-date information presented in e-commerce becomes more important because it becomes a reference for purchasing. Meanwhile, other research (Siswaka, 2020) also highlights that information content is much more important than up-to-dateness. This aspect answers that users will prefer information content that is useful to them compared to information that is newer but has no usefulness. Likewise, a study conducted (Napitupulu, 2017) shows that the form, content and up-to-dateness of information are important concerns for e-commerce web users when making purchasing decisions.

This research negates information quality as a driver of e-commerce web user satisfaction. Brodo e-commerce web users are quite unique in negating the quality of information. Respondents only focused on the ease of e-commerce applications for transactions. Brodo e-commerce web users access only for transaction purposes, not to search for information. Even though product information still exists and meets information standards, Brodo e-commerce users don't really care about the up-to-dateness of the information presented. They only focus on simple information content dimensions, otherwise they don't really care. This behavior pattern answers why variable X_2 (Information Quality) has no influence on Brodo e-commerce web user satisfaction.

Service Interaction Quality (X_3) on User Satisfaction (Y)

The quality of service interaction in this research refers to the concept of customer perception of the services provided by Brodo. Other qualities of service interactions are also closely related to customer perceptions of service interactions, for example (employees, staff, etc.) during transactions. Service is one of the pillars of business and sales success. Several studies (Dam & Dam, 2021; Pecot & De Barnier, 2017; Tjiptono & Chandra, 2005) confirm that service quality is one of the keys to sales success. It also cannot be denied that in terms of content, all business people have products that are almost the same, both in terms of specifications and price. However, what often makes the difference is the service provided. Excellent service is still the prima donna for business users in the service sector. This is confirmed by research (Kaurin & Bošković, 2020; Lin et al., 2021) which reveals that customer satisfaction and purchasing decisions are influenced by service quality.

This research becomes different when the results show that variable X_3 (Service Interaction) has no influence on user satisfaction. This negates several studies above (Dam & Dam, 2021; Pecot & De Barnier, 2017; Tjiptono & Chandra, 2005) that sales success is influenced by service interactions. This research found that Brodo customers are very unique in that they no longer prioritize service interactions. This is because the tools used in transactions are quite easy to use. The usability factor of Brodo's e-commerce application is quite satisfying for customers. Customers are greatly facilitated by a simple and easy to use application. So that other dimensions as supporting factors for e-commerce web user satisfaction are no longer important. This research also underlines studies conducted by (Arévalo-Avecillas et al., 2018; Mangano & Zenezini, 2019; Santoso & Mujayana, 2021; Wijaya et al., 2021) which emphasizes service in every sale.

Service interactions are negated in this research because the usability factor is very capable of providing customer satisfaction. On the other hand, interaction with the sales service department is increasingly reduced because the sales transaction process barely involves employees and staff. The involvement of employees and staff in the sales transaction process is very minimal, apart from operational issues (packing and delivery). 99% of all transaction

processes are carried out by e-commerce applications so that interaction between customers and sellers is increasingly reduced.

4. Conclusion

Usability, the usefulness, or value of an e-commerce application is the most important thing in this research. This research found the fact that only variable X_1 (Usability) had an influence on User Satisfaction. This discovery is also a novelty in the case of web assessment. Previous studies almost always reveal that all variables used in the web assessment process influence satisfaction. However, in this research, variables X_2 (Information Quality) and X_3 (Service Interaction) do not have an influence on user satisfaction.

Brodo customers still emphasize the importance of usability or the useful value of an online shopping transaction tool. Information quality is not a concern for Brodo e-commerce web users. Likewise with service interactions, Brodo e-commerce web users don't really care about the quality-of-service interactions. This is because the application tools used in transactions are sufficient to represent their satisfaction. Even using online applications, interactions between customers and sales staff become less frequent. So, it is common that the X_3 Service Interaction variable is not very important for Brodo customers.

The limitation of this research lies in the number of respondents used. Brodo users are of course spread throughout Indonesia from Sabang to Merauke. The number of 100 (one hundred) respondents certainly does not represent a general generalization. However, at least the results of this research have somewhat illustrated the map of Brodo consumer behavior. As a follow-up to this research, it can be developed into further research with the theme of Brodo consumer behavior. Apart from that, this research can also be a reference for similar research with different methods. Another web assessment method that can be used to measure the Brodo e-commerce website is UTAUT. Researchers believe that using different methods on the same object will produce different results.

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