

Analysis of Website Quality for Seagm.com Using PIECES Method

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Abstract— *The development of technology is currently very fast and has made it easier for people in many ways. The website is one of the facilities that make it easier for people to carry out daily activities such as purchasing digital products. One of them is Seagm.com which is engaged in E-Commerce. This study aims to analyze the quality of an E-Commerce website called Seagm.com using 6 indicators in the PIECES method, namely Performance, Information, Economy, Control, Efficiency, Service. Data was collected by distributing a questionnaire form to users or visitors to the Seagm.com website. The results of this study indicate that the website Seagm.com gets a very satisfied category based on the results of a questionnaire totaling 81 respondents for each PIECES variable.*

Keywords— *E-Commerce, PIECES, Website.*

I. INTRODUCTION

The use of websites has now become commonplace for the community because websites can provide information and data. The main purpose of the website is to provide information to website visitors, therefore in building a website must pay attention to several factors such as: Performance, Information, Economy, Control, Efficiency, Service. If a website has good results based on these factors, then visitors will make return visits and also spread about the website.

According to Becti (2015) concluded that the website is a collection of pages that are used to display text information, still or moving images, animations, sounds, and or a combination of all of them, both static and dynamic that form a series of interconnected buildings. linked sites, each of which is linked to a network of pages. One of the uses of the website is to carry out buying and selling activities online, or it can also be called E-Commerce. The site www.seagm.com is an E-Commerce site that focuses on selling digital products. The products available at Seagm have many choices, ranging from digital products for games, video streaming, to purchasing E-Currency and of course these things have started to become a commodity in society.

Some of the problems found on this seagm website are in the Game and Card menu. On the Game and Card menu, there are only a few choices available compared to other E-Commerce engaged in the same field. In addition, some products often run out of stock, but on the website page you can make purchases and also some products cannot be found in categories such as Games, but if you do a search, these products just appear. This can cause dissatisfaction for users due to inaccurate information they want such as information on stock items, things like this result in failed purchases and the balance that has been paid settles on the Seagm.com site and it takes

time to return the balance to the user. In addition, it can also cause the loss of potential new customers because the items they want are not found on the menu in question. Several studies on the problem of satisfaction on a website were carried out using the PIECES method.

II. STUDY LITERATURE

A. PIECES

The PIECES method is used to find out existing problems and control changes to the system itself. The PIECES method consists of 6 indicators, namely Performance, Information, Economy, Control, Efficiency and Services (Lukman, 2018).

- Performance

Performance indicators are the most important element in measuring the effectiveness of an information system that is used to assess existing processes or procedures that can be improved and to see how far an information system processes data (Yodi, 2017).

- Information

Assessing whether the current procedures can still be improved so that the quality of the information produced is getting better and has value for users in terms of content, timeliness, accuracy, and information format (Yodi, 2017).

- Economy

That is to assess the system from the economic aspect consisting of reusability and resources.

- Control

To assess information systems from aspects of data security and control consisting of integrity, i.e. the degree to which access to software or data by unauthorized persons can be controlled. In addition, there is also security, namely mechanisms that control or protect programs and data in information systems (Yodi, 2017).

- Efficiency

An assessment of how efficient the menu is owned by the website and also how easy the website is to use.

- Services

Service analysis in the form of services provided by websites such as live chat.

B. User Satisfaction

Satisfaction is a state felt by the user after experiencing a performance or result that has met various expectations. User satisfaction describes the harmony between one's expectations and the results obtained by the existence of a system where the person participates in the development of information systems

(Lukman, 2018). Meanwhile, user satisfaction with the website means that the situation felt by website users after experiencing a performance or result that has met various expectations.

III. RESEARCH METHOD

The research was carried out through the planning and implementation stages as shown in Figure 1.

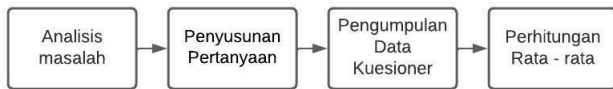


Fig. 1. Research Method

A. Problem Analysis

The object of this research is a website that sells digital products. Seagm is an E-Commerce company that focuses on selling digital products. Some of the shortcomings that the website had at the time the research began were the incompatibility of the stock displayed on the website, such as when the website provided information if the product had stock, but when an order was placed, the order status would change to a refund. In addition, some products owned by the application are not on the website or products that are not in the application are sold on the website.

B. Composing Questions

At this stage, make a questionnaire based on user satisfaction with the PIECES category. Questions will be entered into google forms and distributed to social media such as Discord. Questions can be seen in table 1.

TABLE 1(a). PIECES Category Questions

Question Based Category		
Performance	Information	Economy
Meets user need	Information is genuine	Easily to find with any search engine
Have appropriate menu	Product information presented according to needs	relieve users in terms of time and cost
Attractive UI		
easy-to-understand menu		
Fast access	Product up to date	

TABLE 1(b). PIECES Category Questions

Question Based Category		
Control	Efficiency	Service
Virtual account Security when transferring product	UI design is easy to understand	Fast reply from live chat
Login security	UI is friendly user	Fast product shipping
Data security at the time of payment		Many choices of payment methods

C. Questionnaire Data Collection

Data collection is done by sending a questionnaire using Google Form through several media such as Discord. The data obtained is based on indicators of Performance, Information, Economy, Control, Efficiency and Services. Research gets data by making observations on Google Form.

D. Calculation of the average

Calculate the average of each variable in the PIECES method. The results of the questionnaire were then analyzed using the formulation of satisfaction and level of satisfaction using the Kaplan and Norton definitions. Then the values obtained will be categorized using a Likert scale in table 2.

$$RK = \frac{JSK}{JK} \quad (1)$$

$$JSK = (JJ * SN) \quad (2)$$

Where:

RK = Average Satisfaction

JSK = Total Questionnaire Score

JK = Number of Questionnaires

JJ = Number of Answers

SN = Score

(Safarudin, 2018)

TABLE 2. Likert Scale (Safarudin, 2018)

Scale	Satisfaction Result
1 – 1,79	Very Dissatisfied
1,8 – 2,59	Not satisfied
2,6 – 3,39	Neutral
3,4 – 4,19	Satisfied
4,2 – 5	Very satisfied

IV. RESULTS AND DISCUSSION

A. Respondents

After distributing the questionnaires on platforms such as discord, the total respondents who filled out the google form were 81 respondents.

B. Result of Performance Indicator

Performance Indicator has 5 questions. There are 44 respondents answered very satisfied about the needs being met. On the question regarding the appropriate menu, 37 respondents answered with a score of satisfaction. There is 1 respondent who answered that the website does not have an attractive appearance. There is 1 respondent who disagrees about the menu on the website which is easy to understand. On the question of website speed when accessed, there are 3 respondents who answered with a neutral value.

C. Result of Information Indicator

Indicator Information has 3 questions. On the question where the information provided on the website is precise and accurate, 41 respondents answered agree. Regarding product information presented according to needs, 50 respondents answered strongly agree. On the choice questions that are always up to date, 3 respondents do not agree.

D. Result of Economy Indicator

In the Economy indicator there are 2 questions. There are 51 respondents who answered strongly agree that the website is easy to find in every search engine. on the question where the website relieves users in terms of time and cost, 1 respondent who does not agree.

E. Result of Control Indicator

Indicator Control has 3 questions. In the first question regarding the security of the user's virtual account when sending

products, 1 respondent who answered strongly disagreed. On the security question at login, 39 respondents answered strongly agree. Questions related to data security at the time of payment have 51 respondents who strongly agree.

F. Result of Efficiency Indicator

In the Efficiency indicator there are 2 questions. Questions about easy-to-understand website design got 51 respondents who answered strongly agree. Regarding user-friendly websites, 1 respondent disagrees.

G. Result of Service Indicator

The Service indicator has 3 questions, the first question regarding the speed of replying to messages on live chat got 59 respondents who answered strongly agree. In the second question regarding fast product delivery, 1 respondent who answered strongly disagreed. Questions related to various payment methods had 8 respondents who answered neutral.

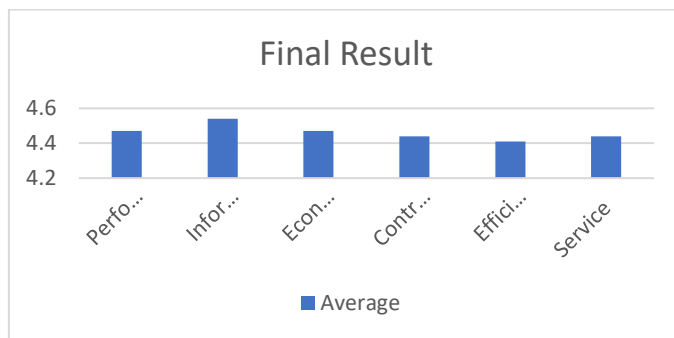
H. Results of Each Indicator

Each category will be calculated and after that each category will use Keplan and Norton and categorize it using a Likert Scale.

TABLE 3. Results of Each Indicator

Category	VD	NS	N	S	VS
Performance	0	5	22	152	226
Information	0	6	4	85	148
Economy	0	3	16	44	99
Control	1	2	18	88	134
Efficiency	0	2	4	82	74
Service	1	3	24	75	140

The final result for determining the category on the Likert scale can be seen in graph 1.



Graph 1. Final Result

Based on the results of the questionnaire using the PIECES method, the satisfaction scale from the Seagm.com website is

very satisfied for all categories with a score of 4,47 on the performance indicator, 4,54 in the information category, 4,47 in the economy category, and 4,44 in the control category, the value is 4,41 in the efficiency category and 4,44 in the service category.

V. CONCLUSION

Analysis in measuring the quality of the Seagm website using the PIECES method can provide an overview of the company through user ratings based on indicators of Performance, Information, Economy, Control, Efficiency and Service. And it can be concluded that the users of the Seagm website are very satisfied with the conditions they have. Based on the results of the analysis that has been carried out, the average rating owned by Seagm website users is very satisfied. As a company engaged in buying and selling this is very helpful.

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