



Evaluation Of Marine Economic Literature Usability Website Using Heuristic Method

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Article Info

Article history:

Received April 15, 2022

Revised May 17, 2022

Accepted June 23, 2022

Keywords:

Evaluation;
Marine Economy;
Heuristic;
Website.

ABSTRACT

In the current era of globalization, all fields are experiencing advances in information technology, including the marine and fisheries aspects. One of the results obtained from this progress is the presence of a website suhana.web.id which is engaged in marine economic literacy, but in its use the website apparently still has several shortcomings such as content updates that are not carried out optimally and regularly. Seeing these problems, the researcher aims to conduct an evaluation on the website by using the heuristic evaluation method in order to provide recommendations. In applying the heuristic method, the author involves three evaluators who are experts in the field of web programming and interface design.

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1. Introduction

Entering the era of globalization as it is now, almost all fields have experienced technological advances that greatly impact all aspects of life, especially in the aspect of information technology (IT) in the marine and fisheries sector. Information Technology by Mulyadi (2014: 21) is a technology in the form of hardware, software and useware that is used to process data so as to produce quality and useful information for its users. In its very rapid development, Information Technology (IT) in marine and fisheries aspects is able to provide many benefits for coastal communities, fishermen, or others in this modern era. On this occasion the author will evaluate a website based on suggestions and criticisms from several users. The website that will be evaluated is suhana.web.id, the results of the evaluation will be processed through a discussion process first.

Website itself is a forum founded by Dr. Suhana, S.Pi, M.Si which contains a lot of information about marine and fisheries news in Indonesia. As for the necessity of carrying out the analysis process, applying certain methods or standards, because it is able to minimize or understand the advantages of the condition of a website that is currently used optimally (Dewi Kemala Sari, 2000). If the analysis process does not use the predetermined provisions, then it cannot know the performance of the website in implementation from the beginning of the system being built until it is used. The most relevant evaluation technique for the results to be applied to a system/website is by analyzing usability factors.

Usability is a very important thing to pay attention to, because this aspect will be very noticed by new users who visit a website. The usability aspect is a mandatory requirement in creating a website, if the website does not refer to this aspect, users will easily leave the website. In usability, according to Dorie Pandora Kesuma (2020) the thing that can be the main assessor is the interface design of the system used by the user so that it makes the system quality factor that applies the form of a response resulting from human interaction with technology. A well-designed interface design can promote an easy and natural form of interaction between the user and the system itself. In order for the system to run effectively and efficiently so as to make users of the system feel quite satisfied, a usability evaluation is needed (Hendra & Arifin, 2018). Because usability evaluations carried out on a website are intended to find out the problems that exist in the *suhana.web.id* website and provide evaluations in website development and improve usability in website user interactions.

2. Method

The methodology used for the preparation of the work in this research is to use literacy and heuristic research methods. Literacy at this time is a method or a model that is useful in the process of collecting data or sources relevant to the topic of discussion. As for the heuristic evaluation, it is a way of checking usability for computer software that helps identify usability problems in interface design (Jacob, et al 1994).

The evaluation research of the *suhana.web.id* website has a number of stages, starting with the planning process and collecting data from literature that has received recognition from many parties such as scientific journals, theses, and books. After the planning process is well structured, the next step is to determine the evaluator who is an expert in the field of web programming or interface design. In this study, three evaluators were used whose professions came from final year students, the planning division police, and also private employees of PT Dasa Aprilindo Sentosa. Then proceed to identify problems and process data from the results of the evaluator's assessment which will be taken into consideration to decide the best results and suggestions.

3. Result and Discussion

3.1 Variable Identification

In the identification of variables, there are 8 variables that contain codes as a reference for applying heuristic aspects as contained in Table 1 heuristic codes. The table aims to facilitate the analysis process, as shown in the table marked with codes H1 to H8. Table 1 shows 3 columns containing code, heuristics and a description to define the heuristic code.

TABLE 1
HEURISTIC CODE

Code	Heuristics	Information
H1	Visibility of System Status	Clear information in a timely manner to website users
H2	Match Between System and The Real World	- Use good and understandable language - Choosing the right color combination - Use of images that are easy for website users to understand
H3	Use Control and Freedom	Users are free to control the website according to their needs
H4	Consistency and Standards	Convincing users the first time using the feature
H5	Recognition Rather than Recall	Prevents users from hesitating when using a command or function for the first time
H6	Flexibility and Efficient of Use	The system helps users to complete tasks more easily and quickly
H7	Aesthetic and Minimalist Design	Information must be relevant and each component must contain meaning and function according to system requirements
H8	Help Users Recognize, Dialogue, and Recovers From Errors	Users can understand the error message when a notification appears when there is an error

3.2 Problem Categorization

There are 13 categories of problems related to usability aspects. Some of these problems were obtained from experts who were asked to become evaluators to conduct an assessment of the suhana.web.id website. The problems that have been analyzed are presented in table 2 which contains problems regarding usability obtained from the results of the evaluator's assessment, these problems are categorized with each heuristic code.

TABLE 2
USABILITY PROBLEM CATEGORIES

NO	Usability issues found	Suggestions for website improvement	Evaluator	Heuristic Code
1	The image size in the navigation bar section is inconsistent and not eye catching	Suhana's website logo should be static, so that the size is consistent	1 and 3	H7
2	The navigation display does not match and is less effective	Better to make one line using sub-menu division	1, 2, and 3	H6
3	The background that is displayed when scrolling down, under the navigation does not match the first view	The background on the main website should be adjusted in size	1	H7
4	The system takes a relatively long time (about one minute) to provide the required data.	The website owner should carry out regular server maintenance	1	H1
5	Content updates are not carried out optimally and are scattered on the main page	Content optimization should be done regularly	1 and 2	H2
6	Fish economic data only shows a few points, not everything is explained in it	The fish data displayed should be more complete with data management	1	H1
7	There are some blank displays and there are only displays on the left side	The blanks should be filled with news content	2	H7
8	Some images and content titles do not match (eye catching)	Perform factual news updates, so that images and news content are appropriate	2	H7
9	Search feature is hard to find	The search field placement should be at the top	2	H8
10	Header that does not display information	Can display some of the actual news pages	2	H4
11	Help feature is not available	There should be a help feature for users who need help	3	H8
12	The design used in the content section is quite complicated	The maker should use a design that pays attention to the comfort aspect for the user	3	H7
13	This website does not use the footer section	The ownership information section is better stored in the footer section	3	H1

3.3 Percentage of Usability Problems

Regarding the calculation of usability problems, the proportion of each heuristic principle is described in table 3. Based on the calculations in table 3, the category of usability problems most identified by evaluators is code H7. The H7 code problem regarding the design of a website that should

be made with a consistent design appearance in color selection and the location of content that does not pile up making it easier for users to use the website with other features on the suhana.web.id website. The next problem lies in the principle that the H1 code regarding the website should be made with a system that can tell users what is going on so that website users can understand the contents of the website, Then the problem with the website is based on the principle with the H8 code, which is that you must have a system that when there is a problem on a website, it is explained clearly and can also provide solutions. The principle with codes H6 and H1 gets the lowest identification with a proportion of 1.

TABEL 3
CALCULATION RESULTS OF USABILITY PROBLEMS

Heuristic Code	Aspect Heuristic	Frekuensi	Persentase	Persentase Kumulatif
H1	Visibility of system status	3	23 %	23 %
H2	Match Between Syatem And The Real	1	8 %	31 %
H4	Consistency and Standards	1	8 %	39 %
H6	Flexibility and Efficient of Use	1	8 %	47 %
H7	Aesthetic aand Minimalist Design	5	38 %	85 %
H8	Help User Recognize, Dialogue, and Recovers From Errors	2	15 %	100 %
		13	100 %	

4. Conclusion

Based on the results of the evaluation conducted on the suhana.web.id website using the heuristic evaluation method, conclusions can be drawn. So by using the heuristic evaluation method to assess the level of success of the website in terms of usability. Successfully found several variables with the lowest percentage of the heuristic evaluation method, which must be corrected quickly so that the usability level of the suhana.web.id website is successful. From the results of the calculation of usability problems, the lowest percentage is 8% for the H2 variable, 8% for the H4, 8% for the H6 variable, 15% for the H8 variable, 23% for the H1 variable, and 38% for the H7 variable. This should be done quickly on the website following the suggested solutions.

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