

Interface on Usability Testing Indonesia Official Tourism Website

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Abstract

Ministry of Tourism and Creative Economy of The Republic of Indonesia must meet the wide audience various needs and should reach people from all levels of society around the world to provide Indonesia tourism and travel information. This article will give the details in the evolution of one important component of Indonesia Official Tourism Website as it has grown in functionality and usefulness over several years of use by a live, unrestricted community. We chose this website to see the website interface design and usability and to popularize Indonesia tourism and travel highlights. The analysis done by looking at the criteria specified for usability testing. Usability testing measures are the ease of use (effectiveness, efficiency, consistency and interface design), easy to learn, errors and syntax which is related to the human computer interaction. The purpose of this article is to test the usability level of the website, analyze the website interface design, and provide suggestions for improvements in Indonesia Official Tourism Website of analysis we have done before.

Keywords: Interface, Usability, Website.

1. INTRODUCTION

The wide variety of existing information and the rapid development of information technology have made many web based application products and services available for daily use. Information distribution can be done by improving knowledge access and transferring knowledge by using media such as website.

Websites are used daily for reading news, finding work vacancy, shopping, finding telephone information, ordering food, planning for a trip, selling products and even helping a company business processes. Services concerning customers such as customer care in a company, internet banking service, online reservation service, product promotion and marketing, project management or even e-learning are the examples of many services using web based application. Interface development for tourism website must actively involving user from planning through evaluation. If a user feels uncomfortable in using an application or a product or a service then it can be assumed that it is difficult to use and has the potential to be a failure. If a website is a failure then there will be a certain loss in all of the money spent in the development of the website, loss in reaching market success, user disappointment, trip plans cancelation, bad image and business process disturbance.

One way to evaluate an interface is usability test. Usability test is measuring the ease of use, easy to learn, errors and syntax. There are many methods on doing a usability test such as formal usability test. Formal usability test in Indonesia Official Tourism Website interface is done in order to know Indonesia Official Tourism Website usability, to identify the problems found by user when using Indonesia Official Tourism Website, and to know the changes that have to be applied in Indonesia Official Tourism Website. Criteria used for the usability test are ease of use, easy to learn (terms used, system speed, time, and consistency), errors and syntax in Indonesia Official Tourism Website.

2. LITERATURE REVIEW

2.1 Human Computer Interaction

Sometimes called as Man-Machine Interaction or Interfacing, concept of Human-Computer Interaction / Interfacing (HCI) was automatically represented with the emerging of computer, or more generally machine, itself. The reason, in fact, is clear: most sophisticated machines are worthless unless they can be used properly by human. This basic argument simply presents the main terms that should be considered in the design of HCI: functionality and usability [1].

Why a system is actually designed can ultimately be defined by what the system can do i.e. how the functions of a system can help towards the achievement of the purpose of the system. Functionality of a system is defined by the set of actions or services that it provides to its users. However, the value of functionality is visible only when it becomes possible to be efficiently utilized by the user [2]. Usability of a system with a certain functionality is the range and degree by which the system can be used efficiently and adequately to accomplish certain goals for certain users. The actual effectiveness of a system is achieved when there is a proper balance between the functionality and usability of a system [3].

Having these concepts in mind and considering that the terms computer, machine and system are often used interchangeably in this context, HCI is a design that should produce a fit between the user, the machine and the required services in order to achieve a certain performance both in quality and optimality of the services [4].

Thus HCI is mainly concerned with the development of human capabilities to use machines, the designing and building of interfaces, process optimization between man and machine, interface usability, and better communication between man and machine. Whereas HCI studies the interaction of man and machine together, and usability studies ensure its effectiveness. Application of HCI in technology results in usability, universality, and usefulness [2]. Usability is a quantitative and qualitative measurement of the design of a user interface, grouped into five key factors: learn ability, efficiency, memorability, errors, and satisfaction [3].

2.2. Usability

Usability is a term used to indicate that people can employ a particular tool with ease in order to achieve certain goals. Usability can also refer to the method used to measure the usability and the study of neatness or efficiency of an object.

There are many usability methods and principles that exist such as usability inspections methods and discount usability methods [5], formative and summative usability evaluations [6]. These methods usually may also accompany think-a-loud protocols and competitive analysis. In any usability evaluation, there are always discussions regarding how many users are enough for a test. A study by Nielsen [3] further suggests that five users are enough. Research by Faulkner [7] suggests that as many as 85% of usability problems but that as few as 55% could be found as well with using only five users. With increasing the number of users to 15, the range of problems found can be 90-97%.

Dimension Usability

Usability dimensions which are classified Whitney Quesenbery [8], as follows:

- a. Effective : How completely and accurately the work or experience is completed or goals reached.
- b. Efficient : How quickly this work can be completed.
- c. Engaging : How well the interface draws the user into the interaction and how pleasant and satisfying it is to use.
- d. Error tolerant : How well the product prevents errors and can help the user recover from mistakes that do occur.
- e. Easy to learn : How well the product supports both the initial orientation and continued learning throughout the complete life time of use.

Component Usability

Usability is defined by 5 quality components [9]:

- a. Easy to learn : How easy is it for users to accomplish basic tasks the first time they encounter the design?
- b. Efficiency : Once users have learned the design, how quickly can they perform tasks?
- c. Memorability : When users return to the design after not using it for a certain period, how easily can they reestablish proficiency?
- d. Errors : How many errors do users make, how severe are these errors, and how easily can they recover from the errors?
- e. Satisfaction : How pleasant is it to use the design?

2.3. Interface Design

Advance interface design has the following characteristics [10]:

- a. Standardization : The uniformity of the properties of user interfaces in different applications.
- b. Integration : Integration of packaged applications and software tools.
- c. Consistency : Uniformity in the application program.
- d. Portability : The possibility to convert data in a variety of hardware and software.

There are several things that cause reduced levels of usability of an interface design system, among them are:

- Text is not clear and precise which will cause doubt; this will make the user needs to re-read and allows a false interpretation.
- Graphics are not precise that important elements are hidden.
- Title misrepresents the content. This creates confusion and hinders the ability to view the existing relations.

- Requests for information that is unimportant or irrelevant. Information requests require user to remember the previous answers that will confuse users which in turn lead to errors.
- Layout is unstructured and undirected that allow the occurrence of errors.
- Poor quality of presentation that will cause difficulty in reading which would disturb the user and cause error.

3. METHODOLOGY

In this research, testing was conducted by analyses performed. Analyses performed in accordance with the tested usability criteria include:

- Ease of use
- Easy to learn (terms used, system speed, time, and consistency)
- Errors in the Indonesia Official Tourism Website
- The syntax that should be used in Indonesia Official Tourism Website.

From the analysis done by looking at the criteria specified for testing, we will give advice(s) in accordance with the results that we have processed from testing.

4. RESULT AND DISCUSSION

The official website of Ministry of Tourism and Creative Economy of The Republic of Indonesia is www.indonesia.travel [11]. The discussion is started by general analysis of website's usability and interface design followed by detail analysis by dividing the website into three parts: header, sidebar and body and special functionality such as link, navigation, and graphic design.

4.1. General Analysis

At a glance, the website usability and design of website is satisfactory; however, this website has many drawbacks. The following will discuss those drawbacks in detail including suggestion(s) for each drawback.

The first drawback is on the language box. The function of the language box in the upper left corner is to change the language of the website; however it refers to a different website URL instead. Figure 1 will show the difference of interface on several languages.



<http://www.indonesia.travel/en>



<http://www.visitindonesia.jp/>



<http://www.visit-indonesia.com.cn/>



<http://www.tourisme-indonesie.fr/>

FIGURE 1: Indonesia tourism and travel in English, Japanese, Chinese and French.

Suggestion:

It will be better if the website interface is keeping its consistency so that change of language will not change website interface format.

Note: Although there are many different URL based on changes in language, the discussion is focused on analyzing only the English website.

The second drawback is the home page length. Because of the insertion of wide variety of features such as featured destination, quick activities on destination info, video, news, calendar, facebook, and twitter screenshots and various links, the home page became too long.

Suggestion:

Although all of the included features are important, it will be better if:

- **News and link** are shown in slides so it would not use too much space.
- **Calendar** is not present on the home page but on each tourism area (province or town) so it will only show events on certain date that will occur only in the specified tourism area.
- **Facebook** and **twitter** link presented only in icons rather than writings and screenshots.

The third drawback is within the gallery. The gallery is poorly organized and there are repeated, blurry, low resolution, unattractive and pictures in the gallery.

Suggestion:

- Putting pictures of animals, plants, landscapes and civilians activity in their own group. This will help user to directly choose pictures based on their preference.
- Paying more attention to picture resolution and size so the gallery will have a standard and makes it looks tidier, interesting and professional.

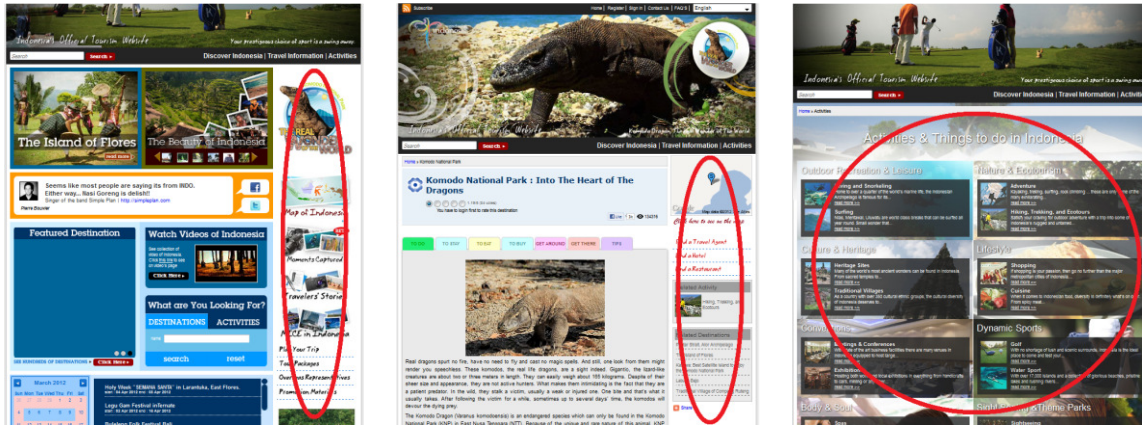


FIGURE 2: The different page layout.

The fourth drawback is the website layout inconsistency. For instance, when opening a different page, the sidebar changes or removed and there is no link to go back to the homepage.

Suggestion:

The website should keep its consistency by making the layout for all pages similar.

4.2. Detailed Analysis

As shown in figure 3, the website is divided into three parts: header, sidebar and body. The following will provide the analysis of each part.

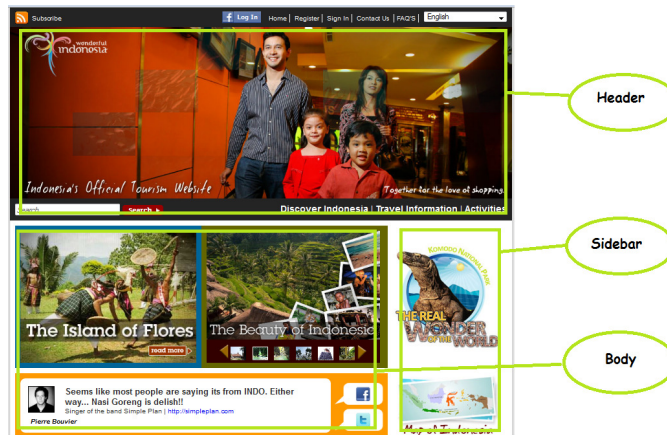


FIGURE 3: Website division.

Header

The drawbacks on the website's header are too small and hard to find title, unstructured links position and unrelated elements that do not have a clear group category are located nearby. These drawbacks are shown in Figure 4.

Suggestion:

- Title is important in helping visitors to obtain information of the website. It will be better if the size of title is bigger, so it will be easy to see.
- Organizing the links based on their relevance. In example, the link **home** should be located beside Discover Indonesia etc.

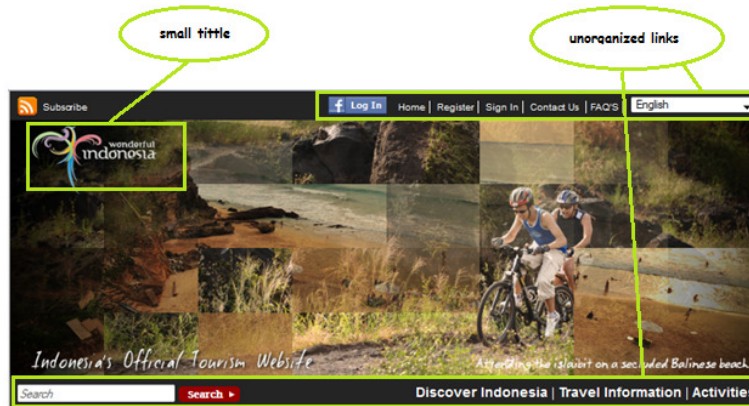


FIGURE 4: The drawbacks of the header.

Sidebar

In the sidebar, there are many icons, pictures and texts that contain a link. When the cursor points those items the appearance becomes fade, indicating that they contain the link to another page; However, as shown in Figure 5, some pictures do not do the same, for instance, their color do not change. The grouping is well organized but the arrangement is not in order.

Suggestion:

- Make the entire item that contains link change when pointed by the cursor, for instance blinking, fading or enlarging. This will help the visitor knows that it will bring them to other page when clicked.
- Rearrange the groups of items based on their importance. The most important group is placed in the uppermost part, for example, placing find us on facebook or twitter in the bottom.



FIGURE 5: An icon that change (left) and icon that does not change (right).

Body

The drawbacks on the body are too many contents, not well organized contents, unclear element separation and relation, and no group for related contents. The drawbacks in the news page are the news content has many paragraphs but lack of highlight that makes it look like a book; the color of each box does not match for example, the box "Beauty of Indonesia" is green while the others are blue and orange and color gradation does not have enough contrast.

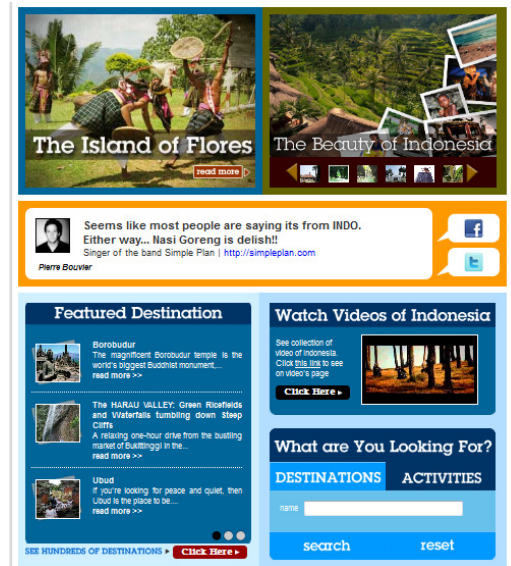


FIGURE 6: The drawbacks of body.

Suggestion:

- Make the page tidier and more structured by organizing the contents, grouping the contents which are related, and splitting the groups by giving space, line or border.
- Many users find reading from the monitor slower and more awkward than from paper. To help user in this matter the website should have shorter paragraph with more highlights and symbols.
- Choose matching colors for the webpage. Making it contrast to attract visitors.

5. CONCLUSION AND RECOMMENDATION

The high usability and attractive graphic design of a webpage give an important role to increase a website quality. A webpage design must be user oriented, it is important to know what kind of user that will visit the website. To know this, studies in users need are required. The analysis above can be concluded that generally, the website is good although it has several weaknesses in design and functionality.

In order to make a website better, study of usability and graphic design of a website is required. For Indonesia tourism and travel website the following improvements are necessary: Making each page layout consistent, Choosing the right color, Organizing the position, Grouping related items, and Using highlight and symbol instead of text.

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