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Usability testing of indonesia tourism promotion website

U Yunus¹, Anindito², E Tanuar³ and Maryani²

¹Communications Department, Bina Nusantara University, Indonesia

²School of Information Systems, Bina Nusantara University, Indonesia

³School of Computer Science, Bina Nusantara University, Indonesia

uyunus@binus.edu

Abstract. Indonesian tourism has been viewed as one of the source of foreign exchange, therefore visit Indonesia campaign through Wonderful Indonesia should be given attention. This research aims to test the usability of web <http://www.indonesia.travel/en>, at the end can give input to the Tourism Ministry of the Republic of Indonesia. The concept used based on usabilitygeek.com which mentions the three main categories for usability testing, i. e. explorative, assessment and comparative with the users are three classes of Communication Department students of Bina Nusantara University with a total of 120 students, however finally only 22 students were elected because of the criteria are the students should be like travelling and access to the tourism website more than 12 times. The methodology used is qualitative descriptive and experiments, with data collection techniques through observation and interviews after participants' access to the web: Due to their one-on-one nature, interviews enable the observer to ask direct questions to the user and the participants posted their opinion in online discussion forum. The results mentioned that the elements web of Wonderful Indonesia has a high learning ability and memorability but less efficiency and satisfaction, as well as several times errors when used. In conclusion, to maximize about the visit of tourism to Indonesia, this web is only able to learn and impress the visitor, but do not give satisfaction to users.

1. Introduction

Currently, Indonesia's tourism sector contributes to approximately 4% of the total economy. By 2019, the Government of Indonesia wants to increase this figure to double to 8% of Gross Domestic Product Revenue, meaning the number of visitors needs to be doubled to approximately 20 million. In order to achieve this target, the Government will focus on improving Indonesia's infrastructure, including information and communication technology infrastructure), access, health & hygiene and also enhancing online promotional campaigns (overseas). The government has also revised its free visa access policy since 2015 to attract more foreign tourists [1]. The development of tourism is quite encouraging seen from year to year about tourist visits such as depicted in Table 1. The amount at the end of 2016 reaches one million per month. Expected in 2017 and then its numbers continue to increase.

Table 1. The Number of Tourists to Indonesia each Month From 2013 till 2016 [1].

Month	2013	2014	2015	2016
January	614,328	753,079	723,039	814,303
February	678,415	702,666	786,653	888,309
	725,316	765,607	789,596	915,019



April	646,117	726,332	749,882	901,095
May	700,708	752,363	793,499	915,206
June	789,594	851,475	815,148	857,651
July	717,784	777,210	814,233	1,032,741
August	771,009	826,821	850,542	1,031,986
September	770,878	791,296	869,179	1,006,653
October	719,900	808,767	825,818	1,040,651
November	807,422	764,461	777,976	
December	766,966	915,334	913,828	

Viewed from the origin of the country, the most tourists who come to Indonesia in March 2017 compared to March 2016, i.e. from China are 140.98 thousand visitors, which is increasing from previously only 94.22 thousand visitors. While the number of tourists from Singapore are 128.38 thousand or decreasing from 130.80 thousand visitors. Tourists from Malaysia, Australia, Japan, each with 117.26 thousand, 88.20 thousand, and 43.85. The number of tourists from abroad increases, the occupancy rate of star-rated hotels in Indonesia in March 2017 averaged 54.70 percent or an increase of 1.82 points compared to March 2016 which was recorded at 52.88 percent [1]. Review the record of number, we can optimist, Indonesian tourists will continue to increase. Furthermore, it is necessary to find out the dissemination of information gained by each country to tell about Indonesian tourism.

Based on the observation result in this research, the promotional tools made by the Ministry of Tourism of Indonesia through Wonderful Indonesia program is through TV Ads in various pay channels in Asia and overseas; branding through digital media tunnel LED in several subway screen door located in Seoul Metro, outdoor media advertisements such as billboards, advertising on subway screen door and One Vision Way, also the web becomes an important information tools for potential tourists as mentioned by researcher from Lithuania which states that in the recent years, a considerable number of scientists have shown interest in the significance of innovations in tourism sectors, have analyzed the impact of information technologies to their services and competitiveness. Unfortunately, such studies in Eastern European countries, including Lithuania are not available of such a service. In this competitive era, promotional strategies are an important part of the organization, students majoring in communication learn this, in some of their courses, and they are energetic youngsters who love to enjoy the life, tend to move dynamically from one place to another, this characteristic somewhat different from students with other majors.

We see that the existences of website for tourism is so important that another researcher calls it destination marketing as an investment described as follows: destination marketing organizations invest considerable amounts of money in the development of websites as part of their overall promotion efforts [2]. Based on this background, the research focused on questioning how is usability testing website of promotion of Indonesia Tourism by communication 'students? The focus of this study is broken down into three questions. How does Indonesia's web culture work as a medium for learning about Indonesian destinations and cultures? How can the web capable to be memorable for the users? What is the level of errors experienced by users when accessing the web of Wonderful Indonesia? The results of this study are expected to be input for the Ministry of Tourism of Indonesia or other general public regarding the usability of the website for its organization.

2. Literature Review

Usability testing refers to evaluating a product or service by testing it with representative users. Typically, during a test, the participants will try to complete typical tasks while observers watch, listen and takes notes. The goal is to identify any usability problems, collect qualitative and quantitative data and determine the participants's satisfaction with the product. In this study more qualitatively tested with participants who are accustomed access to web tourism.

Web site evaluation has been proposed in many ways and various contexts over the past decade. An unified framework of commonly used web site success factors (1) information quality; (2) ease of use;

(3) responsiveness; (4) security / privacy; (5) visual appearance; (6) trust; (7) interactivity; (8) personalization; And (9) fulfillment. Additional factors to further inform Werthner and Klein's dimensions of web communication [3]. In this study the elements studied are the learning media for students and how interesting for students to learn the destination of Indonesia through the web under study. If associated with the above factors are about information quality and visual appearance, whether can create memorable for the user and how high the level of errors experienced by the user. Finally, it is mean ease of use of one of the factor above.

Other researchers have learned that a good appearance will cause proximity to the user as stated that the results indicate that perceived fashion ability has a positive impact on the user's stickiness to the website, and perceived fashion ability also performs a mediating role between website security and stickiness. This study contributes to concept by explaining that website stickiness is not entirely driven by rationality but also perceived fashion ability. In this study, we find out the reasons why the users choose a particular destination [4].

The way to evaluate tourism websites has also been done by researchers from China who said that the research on the evaluation of tourism websites can measure the websites' development in the same industry, and it is helpful to improve the quality of the websites. In view of the complexity of the tourism website evaluation. The evaluation index system of tourism websites, including subjective indicators and objective indicators [4]. Tourism website comprehensive expectation is calculated and the website ranking according to comprehensive expectation is given from high to low. In this research more subjective indicator because every student was asked to give his/her opinion personally and then validated to web builder and marketing communication experts, data is discussed and categorized by researcher.

3. Methodology

This research used descriptive qualitative method completed with experiment three times by the same participants. Data collected through interviewing student who love traveling and looking for tourist destination information through website of tourism. There are 22 students selected because according to the criteria of was 120 students who will be studied determined purposively i.e. three classes of communication science majors of Bina Nusantara University. They are welcome and briefed to access the website <http://www.indonesia.travel/en> in three times. These 22 students have the category of "frequent" access to the tourism website (more than 12 times a year to access the tourist partial web). While they use the website, they are observed, how the feeling expressions when they access the web and they are asked to give their opinion about the web being researched every time they access. They are given 20 minutes each time access to the Web was studying. The place of research is in the classroom using each smartphone. The classroom has very stable internet access so it is worthy to be a computer lab. As in previous studies in the way mentioned by Norman & Panizzi in 2006, the study was conducted on a study of different variants of TA methods and the fact that TA testing methods were typically applied in usability laboratory settings [5]. Data are collected, they posted the opinion also in the online discussion forum; their opinions are examined by the website builder for triangulation of source as qualitative paradigm used. Their opinions to be checked for validity. Another observation is that researchers try to access the web under investigation to check the validity of the answers of the participants. They also asked the origin of the culture so it can be analyzed why they love the destination of a particular area to be a priority such as tourist destinations on the web <http://www.indonesia.travel/en>.

The data obtained is processed and discussed between research teams with web experts and marketing communications expert. Data are categorized and analyzed for further conclusions. The study lasted for 6 months. The study began with secondary data collection in the form of Indonesian tourism data, selection of participants and triangulation of sources, implementation of website usage for three times, interviews and discussions between research teams.

4. Results and Discussions

Website of Wonderful Indonesia consists of "Start Your Journey Here" menu which consists of three pictures with nuances of Medan, Bali and Jakarta. When clicked will appear information about each destination of the three places. Equipped with reviews from TripAdvisor, Garuda flights, hotel selection, maps and any kind of tours in the city. When we scroll the page, it will appear "Experience 5 Wonders" menu, "Destination Highlight", "What's News", "Discover Indonesia", "What's Happening", the last is about "This Month Events" with menu: "Experience" "Travel Guidance" and "Facts". The describe menu is like the following Figure 1.

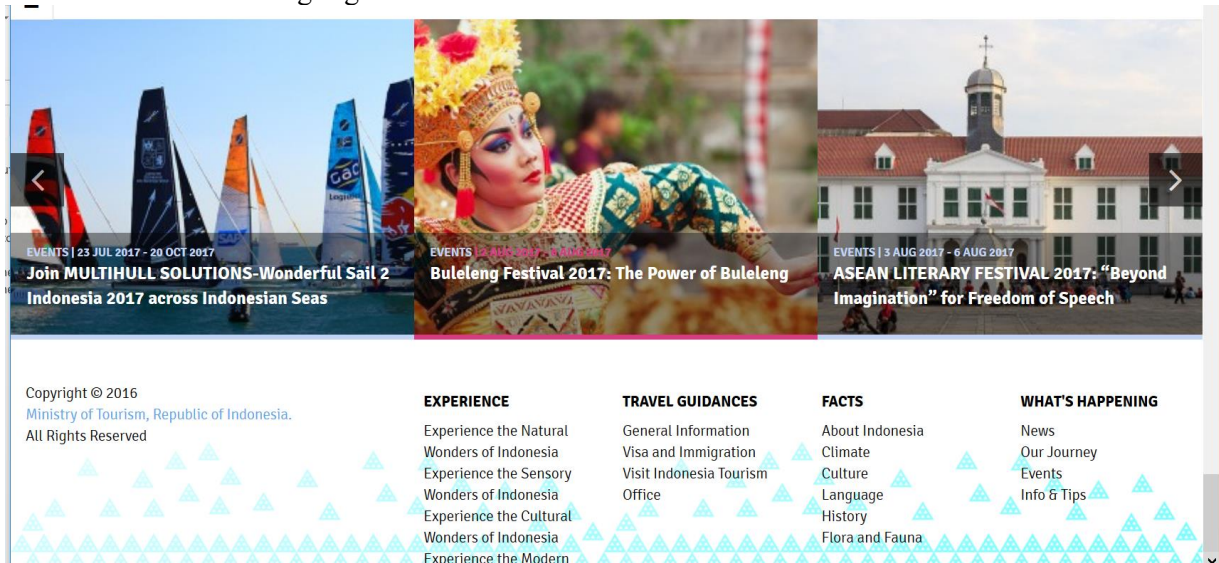


Figure 1. Menu of Web: This Month Events (<http://www.indonesia.travel/en>, 2017)

Based on the observations and interviews completed with the literature, the discussion will cover three things that the purpose of this research, such as to know how website of Wonderful Indonesia as a medium for learning about Indonesia's destinations and culture; how the web can be memorable to users; and how the error rate experienced by the users when access to web of Wonderful Indonesia. Website as a learning media for the participants felt that they had an idea of each of the tourist destinations listed on the web, although it took them a long time to learn one by one from the menu provided by the web. The participants said that: the titles written are very interesting to visit, there are even video shows that tell the destination. But the information submitted is too much so the website becomes too complicated as more stories are written about the tours. Typically, the testing method has tested the participants on their experiences, thoughts, actions, and feelings whilst interacting with the system [6]. The advantages of the web are the story of the culture of each region so that becoming a science enhancer not only about the location but also the local culture of the area. On the next layer there is Tripadvisor's application which helps the user to decide his choice. Disadvantages of this web is the top menu of "Start Your Journey" is too quickly shifted so it makes the user must race in speed when clicking the button, although after successfully clicking one menu will appear information about the three destinations with complete. One of the participants mentioned "I were position if I do not know Indonesia well, I am somewhat disturbed by the shift of the menu". Then, the other layers menu is difficult to open so it takes a long time to wait for further information. Then still found the hotel reviews in Indonesian so it is not suitable for foreigners. This data have been asked repeatedly to participants and found an agreement about the advantages and disadvantages. The examination of this data is important because is given the limited memory of the participants as mentioned by Alhadreti and Mayhew who said according to Ericsson and Simon (1993), in tests utilizing the traditional CTA method, verbalizations can only be valid if they are represented directly accessible information contained in the participant's short-term memory. Such verbalizations do not alter the sequence of information comprehended by participants, and so do not

affect the tasks that participants performed during TA sessions [6]. Based on participant interviews and validated by web builder expert and marketing communications expert, conclusions are made about the website <http://www.indonesia.travel/en> in Table 2 below:

Table 2. Lessons Learned from Use of the Web Top of Form (Source: Processed from Research, 2017)

No	Advantages of Web	Disadvantages of Web
1	The existence of Culture learning that existed in the Tourism Destination	Tourism Destination The "Start Your Journey" menu moves too fast
2	Complete information including maps, how to get and nearby hotels	There are still hotels reviews of Indonesian language, it is not suitable for foreign tourists
3.	The existence of Tripadvisor application, it can help the decision based on the experience of others	Other menus are layered so many, it is difficult to access the information

4.1. The Elements of Memorable Creator

In this study, the session began with welcoming each participant and asked them to read and sign a consent form. Participants were informed that the purpose of the study was to evaluate tourism website. Following this, the concept of thinking aloud was introduced using Ericsson and Simon's instructions (1993) [6] After they get together and try to access the web. Upon completion of the one-day time access, they are identified with data to determine the ethnicity and destination of the city choice and the reason for selecting without view the web again. The answers are as follows.

Table 3. Respondents Data and Choice of City According to Memory (Source: Processed from Research, 2017)

Characteristic	Gender		Access to tourism web/year		Ethnicity				Destination Choice (each student is asked to choose 2 destinations that are remembered in his memory)					
	F	M	Less or 12 times	More 12 times	Jakarta	Javanese	Sundanese	Borneo	Bali	Papua	Jogjakarta	Labuan Bajo	Bandung	Bangka
	12	10	7	15	14	2	5	1	14	10	8	6	4	2

Participants choose the cities interested because of information provided by the web and they have heard about the city before and there is a desire to come to the place of choice. But by looking at the images displayed on the web as well as information about the place makes they are more interested. When asked what is remembered from the web about these places, here are the results at Table 4.

Table 4. The City and Students Memory (Source: Processed from Research, 2017)

No	Preferred Destination	Memorable Things
1	Bali	The beach and the place of the Gods
2	Papua	Favorites for Overseas Tourists
3	Jogjakarta	Really Indonesia; Culture and Food
4	Labuan Bajo	In contrast to other areas
5	Bandung	The air is cool and friendly to the tourists
6	Bangka	Coastal tour

It appears that no participants have chosen the city of their parents. For the destination of tourism there is a variety of things in cultural choice, not always according to their original culture. But there is a tendency that they choose the same culture for cultural recognition. For example, the Javanese tend to make the first choice of Jogjakarta because they love culture and are interested in the information available on the Web. For the second option they choose places that are popular and promoted more by the government. On the Web there are other destinations such as Lampung, Malang etc. however from the participants no one remembers it. Only those that have been in their previous memory and the names of these cities are already popular among the student population. Other people's experiences or experiences will be more supportive to remember as mentioned in the previous research. These findings are supported by Brakus et al., (2009), Zarantenello and Schmitt, (2000); Ha and Perks, (2005), brand experience creates and develops trust-based relationship platform between brand and customer. Brand experiences arise in a variety of settings when consumers search for, shop for, and consume brands [7]. When interviewed further to the participants and examined the validity of the answers to marketing communications experts it is true that what is listed on the web will be more memorable if appropriate experience or hear stories of the experience of people close to them. It should therefore be able to display tourist profiles that match the targets of the Indonesian government, such as China, Singapore, Malaysia, Australia and Japan as identified from the data of origin of major tourist countries coming to Indonesia.

Previous research adds RADAR as a memorable creator as mentioned. Researcher wrote, I believe that this is significant because, while the students may not recall instantly each of the RADAR criteria, the term itself is memorable, as is its associated concept, that is, the need to be constantly alert to possible information dangers. Radar stands for Relevance, Authority, Date, Appearance, and Reason for writing [8]. So for the web memorable then a web needs to update and hold the information and write down the reasons why Indonesia should be visited.

4.2. Web Error Level

Discussion of the web error rate under study, there was a difference in the three experiments. In the first experiment only 2 people said there was no problem with web access, but 20 other students said that the web is difficult to open. Internet network does not experience any constraints. It cannot be explained why in the first experiment the web was difficult to access by the majority of participants. But in the second experiment, all participant said that the web can be opened quickly as well as the third experiment. According to the web expert who was interviewed that in the first experiment too much access to the web and it happened in early May. The period before the fasting or Ramadan in Indonesia where some people make use of holiday information for before fasting and for Eid. The second experiment takes place a week later and the third is the day after. In the second experiment, 16 of the participants still mentioned the difficulty of opening some of the selected icons on the web, 6 others said quite quickly open for access to information. In the third experiment, more participants said the destination icon is easy to open as many as 17 people while 5 others still say the icon is difficult to open. With different participants so that the constraints not on the person or his smartphone but more to akseibilitas his web. Here is an overview presented by Table 5.

Table 5. Web Error Level (Source: Processed from Research, 2017)

Experimental	Access to Web		Access to Icon	
	Easy	Difficult	Easy	Difficult
First	2	20	0	22
Second	18	4	6	16
Third	21	1	17	5

Thus, the error level is high and this requires the web manager to pay attention. The cause of this error can be caused by the following three things we can consider the following failure sources:

- a) Host, network, or browser failures: These failures are similar to regular systems, networks, or software failures, which can be analyzed by existing techniques.
- b) Source or content failures caused by web pages and other resources
- c) User errors may also cause the problem: they are controlled by web contents providers [9].

In this case after being examined by the research team and experts, the error was caused by the point b, i.e. source or content failures caused by web pages. To know more can be into a general procedure consisting of the following five stages:

(1) In the pre-classification stage, preliminary analysis of the given site and its log data is carried out to define error measurements, to establish an analysis baseline and to customize the classification scheme. (2) One-way analysis examines one attribute at a time to identify problematic areas for corrections or for further analyses. Detailed error trends and reliability analyzes can be performed by stamped error data with detailed usage measurements (Kallepalli and Tian, 2001; Tian et al., 2004). (3) Two-way analysis of the interaction between two error attributes to address the problems identified above. (4) Multi-way analysis focuses on the remaining problems by the combination of three or more attributes. (5) The above analysis results are consolidated to provide feedback and recommendations. [9]

The above conditions cannot be allowed to remember that the demands of today who want to be fast and smooth in the activities should be the organization's consideration is now coupled with the characteristics of the millennial children who by described the results of research PricewaterhouseCoopers which states that the particular characteristics of millennial - such as their ambition and desire to keep learning and move quickly upwards through an organization, as well as their willingness to move on quickly if their expectations are not being met. This depiction is to tell how they are in different workspaces with Generation X and Y who tend to try adaptation and still remain calm for something that does not run fast [10].

Responding to the present circumstances suggested by a researcher that advances in internet technologies have led to the popularity of technology-based self-services, with the design of such services becoming increasingly important [9]. This research has been conducted on proven government web using technology-based services in the public sector as the setting, researcher identified the key service attributes driving the adoption and use of transactional e-government services, and citizens' preference structures across these attributes. They research by four key attributes, i.e., usability, computer resource requirements, technical support provision and security provision. They do a web-based survey and a conjoint experiment between 2465 citizens. 4 months later, the results show that the four key attributes influenced citizens' intentions, subsequent use and satisfaction. In the conjoint experiment, citizens reported their preferences for key service attributes for two transactional e-government services [9].

5. Conclusions

Based on the above discussion, then in this study can be concluded that Web of Wonderful Indonesia as a medium for learning about Indonesian destinations and culture has been successful on the subject studied so that content on the web contains cultural information and tourist destinations can be maintained but there are still shortcomings in some respects such as the Indonesian language in hotel reviews. Then the Web of Wonderful Indonesia has a memorable ability for the users because of the similarity of cultural background and experience stories of close friends, thus in this web if the goal of increasing the most tourists from China can display the tourist pictures of the happy and comfortable Chinese Tourist in Indonesia. Similarly, other tourist profiles that are targeted by Indonesian tourism market, such as from Singapore, Australia and Japan, bringing the closeness and confidence in potential tourists who will come to Indonesia. The study also mentions that there is still a high level of error in participant experiments when they access to the web destination or icon. This needs to be a correction

for the Ministry of Tourism of Indonesia in its web management considering that promotions made through other media are only branding and do not contain detailed information like the one on the web.

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