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Assessing User Experience Level of the General Directorate of Christian Community Counseling Website in Indonesia

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The objective of this study is to measure user experience (UX) of The General Directorate of Christian Community Counseling (GDC3) website in Indonesia. We used metric PULSE (Page View, Uptime, Latency, Seven-Day active user, and Earning) and metric HEART (Happiness, Engagement, Adoption, Retention, and Task Success) to measure the perspective of website and user, respectively. The result of this study shows that the UX level of the GDC3 website is 3.12. This study also reveals how the correlation between the perspective of website and user affect the usefulness of the GDC3 website.

**Keywords**: *assessing, usability, user experience, PULSE, HEART*

1. Introduction

The General Directorate of Christian Community Counseling (GDC3) has been using information technology such as a website to perform its function to guide the Christian community in Indonesia. Since it was introduced a few years ago, the website has played an important role as a medium that support the GDC3 vision to create an ethical, intelligent, prosperous and value diversity society. However, the user experience (UX) level of this website has never been measured. It is widely known that the UX level is an important indicator in assessing the existence of a website. By measuring the UX of the website, we can get information about the level of websites to provide services to meet customer needs. In this work, we measured the UX level of the GDC3 website by employing metric PULSE and HEART. Based on the measurement and analysis results, we provide some suggestions to improve the quality of the GDC3 website.

2. User Experience (UX)

According to Hassenzahl[1], User Experience (UX) is an appropriate method to measure the quality of a product, including a website. This statement is supported by the ISO 9241-210: 2010 standard (en), which emphasizes the human-centered design approach for interactive systems[2]. In general, the UX is defined as a perception and response that appears before, during, and after using a product, system or service. It involves emotions, beliefs, tastes, perceptions, physical and psychological responses, behaviors, and fulfillment. There are two main factors that affect the UX, before, during and after using a product, namely quality of products and the basic needs of users [3]. The quality of a product is determined by utility, usability, visual appeal, and hedonic quality of the product. Whereas the basic need of user is determined by relatedness, influence/popularity, stimulation, competencies, security, and autonomy.

According to studies of Human-Computer Interaction (HCI), there are three important components of the UX, namely emotion, motivation, and reflection[4]. In order to measure the UX, those factors should be identified either directly or indirectly. Typically, there are two frameworks or metrics that can be used to measure UX level, namely PULSE and HEART. According to Rodden[5], PULSE metric consists of five factors, i.e. **P**age view, **U**ptime, **L**atency, **S**even-day active user, and **E**arning. Similarly, HEART metric also consists of five factors namely **H**appiness, **E**ngagement, **A**doption, **R**etention, and **T**ask success.
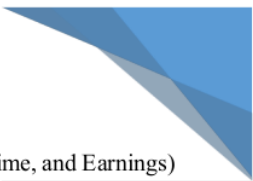
3. Method

In order to measure the UX, we use three factors from PULSE metric (Uptime, Latency Time, and Earnings) and three factors from HEART metric (Happiness, Engagement, and Task Success) as the variables. Other factors are not employed because they are not directly related to the measurement of the UX level of the website. In our research, Uptime and Latency factors are used to find out how often users visit the website. These two factors are combined and became one variable called variable Cost (C). Earning factor is used to determine the benefits that users get and become variable Benefit (B). Happiness factor is used to measure user satisfaction and become variable Satisfaction (H). Engagement factor is used to measure user engagement with the product and become variable Engagement (E). Task success factor is used to measure efficiency and effectiveness of the website and become variable Task success (TS).

We measure the UX level by creating a questionnaire that consists of the above-defined variables in its statements. There are eighteen statements in the questionnaire after performing validation and reliability test. The questionnaire has five Likert scales, where '1' stands for 'strongly disagree', '2' stands for 'disagree', '3' stands for 'neutral', '4' stands for 'agree', and '5' stand for 'strongly agree'. There are 80 participants involved in this research. Table 1 shows the demographic data of the participants.

The data obtained from the questionnaire were converted from nominal to interval value. After that, the interval data is processed statistically to find the mean and standard deviation. The mean value obtained from this calculation indicates the UX level of the website. In order to determine the main factors that affect the UX level of GDC3 website, we performed two correlation test. First, the correlation between product and UX, and second, the correlation between users and UX.

Table 1. Data of participants

Types of participants	Amount	Percentage
Man	52	65%
Woman	28	35%
Lecturer	12	15%
Student	68	85%
< 25 years old	14	17.5%
> 25 years old	66	82.5%

4. Result and Discussion

The results of statistical calculation for five UX variables are shown in Table 2.

Table 2. Mean and Standard Deviation of five UX variables

Variable	C	B	H	E	TS
Mean	3.10	3.12	3.12	3.16	3.10
Std. deviation	0.64	0.68	0.78	0.70	0.69

As can be seen from Table 2, the mean value of those variables is almost the same. The average mean value of all variables is 3.12 which indicates the UX level of the GDC3 website is slightly above moderate. The standard deviation between 0.64 and 0.78 means that the data distribution of each variable on the average is still in normal category. Seeing the vision carried by the GDC3, the UX level of its website need to be improved. Improvement can be done by replacing the content and layout of the website. The contents of the website should consist of information that lead to the realization of GDC3 vision. The information about ceremonial activity should not be the main content of the website. The website also need to have an interesting layout because it will affect the efficiency and effectiveness of the website.

According to Maia[6], the UX occurs when users engage with unforgettable events. The engagement variable is influenced by the product, the better the product the higher the engagement level. If the product is good then the engagement variable level is high. This will increase the happiness variable level. Variable task success needs to be formed through a good product, which is to form an effective and efficient product. The Task Success variable can be used as an opening for other variables to improve the UX level. That

means is if variable Task success increase, then the variables Effort, Benefit, Happiness, and Engagement is going to increase.

The strategic step that should be done by GDC3 to improve UX is to transform the strategic plans into technical procedures. Through strategic plans and key performance indicators, the GDC3 websites should contain church community data management and Christian school data management. The goal of the GDC3 vision is the church community and the Christian educational groups. The programs undertaken by church and Christian school communities reflecting the GDC3 vision need to be communicated through the GDC3 website.

Here, we suggest two things to improve the quality of the GDC3 website. First, the view of the website should be made simple and interesting, for example, the headline can be put on one page. According to Santoso[7], website users want a simple, useful, and tangible interface. The main page or headline of the website contains images relating to the performance of GDC3 or descriptions relating to a growing religious or diversity issue. Information that is not related to headline can be placed on other sub menus. Second, the contents should be adjusted to the needs of user. It is possible that the website has a two-way communication facility between the user and GDC3 as the information provider.

The second statistical test was correlate test. There were two correlations, first was correlation between product perspective and the UX level. The second one was correlation between user perspective and UX level. The correlation result shown in table 3.

The results of correlation test are shown in Table 3.

Table 3. Correlation between product and UX, and correlation between user and UX

	UX
Product (C and B)	0,798
User (H, E, and TS)	0,946

The correlation between products with the UX level shows the number 0.789. This number in correlation indicates a strong relationship category. While the correlation between users with UX level shows the number 0.946. This number in correlation indicates a very strong relationship category. For the GDC3 website the relationship between users with UX level is stronger than the relationship between products with UX level. To increase the UX level, the variables that need to be improved are the Happiness, the Engagement, and the Task Success variables.

From the GDC3 website it can be learned that website design should be designed as a strategic medium to achieve organizational goals. The first and foremost thing to consider is designing website as per user requirement. To meet this requirement, the website needs to design an interactive website.

5. Conclusion

From UX website level 1 to 5, GDC3 website occupies level 3. The GDC3 website simply provides the user with the necessary needs. Fulfilling the level of user needs of the website gives an impact of increased user experienxe level of the website. The higher of fullfilment needs level of website user, the higher the level of user experience of GDC3 website.

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