User Experience Analysis from User-Centered Design Approach in Marketing Website

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Abstract— **To create a marketing website that is right on target as product market fit, it is necessary to do a user experience analysis. User Experience analysis using the User Center Design approach is carried out by prioritizing user-oriented design. A website based on the UCD process will generate high satisfaction levels for its users. In this research, user experience analysis was conducted using a User Centered Design approach with Product Market Fit concept orientation. This concept is often ignored so it becomes a major factor in the failure of a business start-up. The collection was carried out through several processes, namely in-depth interviews and the distribution of questionnaires to a total of 30 respondents. The questionnaire results can be used as a reference to find out which aspects are good and which are still lacking. The element of displaying information on the monitor screen when opening a website gets the highest score of the other aspects with a percentage of 93% user satisfaction. The conclusion for each element states that the curious websites that are being analyzed get a decent title.**

Index Terms- **User Experience (UX), User Centered Design (UCD), product market fit.**

I. Introduction

A. Background

In a website, the role of User Experience is very important. User Experience plays a role in determining user assumptions and feedback on brand producers. In other words, User Experience is also part of the branding of a product. So do not be surprised if the development of User Experience gets more attention from the company.

User Experience analysis needs to be carried out to provide input to the UX design process and provide product designs that are from the perspective of its users. So the product can be enjoyed by users and prevent creating designs that only suit the designer's wishes.

The design and development of the Atap Bukit Coffee marketing website are carried out using a User Centered Design (UCD) approach with a Product Market Fit concept orientation. On the other hand, UX analysis was chosen considering the purpose of designing a marketing website as a service that wants to achieve Product Market Fit from coffee shop visitors in Salatiga and its surroundings. Product Market Fit needs to be prioritized because the business world has an understanding that it must be able to touch the market segmentation level. What components or elements must be provided to the business can be known through direct communication with product users [1], [2]. Thus this research comes to answer these problems.

The User-Centered Design (UCD) approach was chosen to be used in this study because this UCD approach involves the user directly. In the system development process, the main thing is the participation of system users. Active user involvement is decisive for the process of improving design implementation on marketing websites [3].

As a marketing website, it will have competitors in the future, so it is important to make big changes that will make this website different and better than its competitors. Even though there are several other aspects such as business processes and so on, UX is also the main thing that must be considered when designing a website. By defining user requirements with high precision, including the design process, initial prototyping, and testing, building sound systems

using the UCD approach produces systematic results that benefit all target users.

B. Research Question

- What are the factors considered by marketing website users so that marketing websites are said to be efficient and effective?
- How much influence does the evaluation of User Experience analysis have on the development of a business?
- What are the positive impacts of evaluating User Experience analysis on the development of a business?

C. Benefits of Research

- Provide a product design that fits the perspective of the user.
- Make it easier for businesses to achieve their long-term goals because consumer loyalty is maintained.

Save costs because companies can create solutions based on consumer problems.

II. THEORETICAL BASIS

Web pages that are related to each other contain a collection of information on the same topic and are provided by individuals, organizations, or groups, often called websites [1]. Currently, the website is used by almost all business activists because the use of this digital facility makes it easier for customers to access stores anytime and anywhere. On the other hand, websites are also considered to be able to show profiles and achievements to increase the level of consumer confidence in using the services and goods offered.

The user's experience when using the website for the first time, from the initial entry to exit will determine whether or not the user returns. The experience and feelings of interacting with the website are said to be User Experience. There is a term that says the loyal customer is the key. With the visualization, if the User Experience provided is good, the user will be satisfied and return to using the website and then become a loyal customer. After a user becomes a loyal customer, they will become a treasure for the website or business because it will provide regular traffic for the website [4], [5].

User Experience (UX) is a person's view and response based on participation and use of a system product and service (ISO, 2010) [1]. Simply put, UX is how one feels when interacting with an object. A website is said to be successful when it is accompanied by a successful existing UX design. Another factor that must be considered in the UX design process is the

level of user satisfaction the first time they use the web system.

Meanwhile, User Centered Design (UCD) is an approach by placing the user as a source of system development that is made, which aims to increase user comfort in using the system. The User-Centered Design approach is a process that requires repetition from the initial stage to the final stage or implementation in a system design process [1], [6]. The UCD approach can be implemented through several stages with direct users that are consultative. Making the user a cooperative design partner through surveys or interviews, so that a detailed description of the user's experience is obtained which is the output of this stage.

Users are expected to be able to provide an evaluation of the initial design of the website system so that the designer can understand the steps that must be taken in updating the system. The creation of a system aims to create various kinds of convenience for its users [7]. It is hoped that the implementation of UCD in this analysis can create a relationship between the designer and the user so that a good system oriented to the needs of the user can be created without taking a long time.

In addition to the User Centered Design approach, there is also a Human-Centered Design approach which is essentially the same. The very significant difference between the two methods is that HCD focuses on all users, potential or not, all of whom will be the object of research. Meanwhile, UCD only focuses on specific users.

This design process is crucial because it aims to create the best impression from users. User-Centered Design and Human Centered Design are widely used to replace each other in different contexts but are considered the same. Although these two terms have the same roots, the ideas present are viewed from a slightly different perspectives [8].

User-Centered Design is a design designed with a more in-depth analysis of the target audience. It concentrates not only on general human characteristics and perceptions but also on the specific traits and features of the target users. User-Centered Design pays attention to details about the target user, such as taking into account age, gender, potential educational level, professional background, product usage environment, emotional characteristics and physical perceptions, and level of technology awareness and other factors. [9], [10]

Therefore, it is important to determine the UX factors related to the user so that the UCD approach the authors consider is a relevant approach. By continuing to develop the existing UX system, in the future, it is hoped that Atap Bukit Coffee will have a significant difference from its competitors.

Given the growing development of digital systems, more and more competitors will use a similar product marketing approach [11], [12].

III. METHOD

In this study, the main topics include business process analysis and stakeholder interviews. Apart from the business owner, it is important to know the user's point of view. After conducting a literature review, in this study, the authors decided to use User Centered Design (UCD) in analyzing and collecting data [13].

Data collection using UCD must focus on user needs so that the output generated through this approach will be optimal for end-user needs. This study implemented the following activity steps to analyze and collect data using the UCD approach [14].
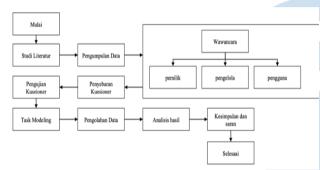

Figure 1. Research Path

After formulating the problem, a literature study related to the topic of wetting is carried out which supports solving the problem in this study. Literary instructions are obtained through articles, journals, and books that discuss User Experience [14], [15].

A. Data Collection

In this step, a detailed needs study is carried out regarding the questionnaire information to be used. The questionnaire is a combination of the statements needed to represent variables in UX. The next step is to determine the right respondent and the number of respondents required in testing the research instrument. Two stages of instrument research were carried out, validity test and reliability test. The validity test used 10 respondents, and 20 respondents for the reliability test. Respondents were selected from representatives of Atap Bukit Coffee marketing website users.

B. Interview

Interviews with the in-depth interview process were carried out face-to-face to support preliminary studies looking for details of the problem to be studied [17]. This stage also intends to interact directly with website users to find out what is needed from the existing system. Interview questions are distinguished based on the role of the source, including:

The owner (owner) :
• How do you market Atap Bukit Coffee?
• In your opinion, are the current business and marketing processes effective and efficient enough?

Manager (management):
• How to communicate with consumers?
• In your opinion, are the current business and marketing processes effective and efficient enough?

User :
• How do you find information related to Atap Bukit Coffee?
• How to communicate with Atap Bukit Coffee? Have you done it before?
• Is the current marketing process effective and efficient?

C. Distribution and testing of questionnaires

A questionnaire was distributed containing statements regarding User Experience to 10 respondents. After that, the first testing stage was carried out, namely validity testing. This test was carried out to determine the validity of the statements submitted to the respondents. The second testing stage, namely testing the respondents' answers, is carried out to ensure that the respondents' answers are reliable. The second test was carried out on 20 website user respondents.

D. Task Modeling

At this stage, analyzing and describing the results of the interviews were carried out. As a result, it will be known how the user completes tasks on the system and what things the user needs to know. Besides that, it also functions to find out how the interface on the website is, whether the user is comfortable using it or not.

E. Data Processing

The data is processed by collecting all assessments from the questionnaire on each attribute statement. After that, look for the maximum value for each attribute. This value determines every UX variable that popularizes the website in terms of User Experience.

F. Result Analysis

The results of the in-depth interviews that have been conducted, will be concluded into several output statements regarding several things that need to be considered for website marketing. Then the authors

make these points as a reference for determining solutions and making them into the main aspects of the statement in the questionnaire stage. This value will later determine whether each UX variable meets the product market fit factor in a system service or not. Then the value will be visualized using a graph.

IV. RESULT AND DISCUSSION

After conducting in-depth interviews with three types of informants in this study, the authors obtained the output in the form of several statements regarding matters that need to be considered in the design of the Bukit Coffee Roof marketing website, namely that there are many conveniences, especially for prospective visitors to be able to see the menu and condition of the place before visiting. visit Atap Bukit Coffee. The collection of data from in-depth interviews was deemed sufficient, then the next data collection was carried out, namely a questionnaire. The 19 statements will be filed including:

Q1: Overall, I am satisfied with the ease of use of the Atap Bukit Coffee marketing website
Q2: How to use the Atap Bukit Coffee marketing website is very simple
Q3: I can complete my task effectively when using the Atap Bukit Coffee marketing website
Q4 : I can quickly complete my work using the Atap Bukit Coffee marketing website
Q5 : I can complete my tasks efficiently when using the Atap Bukit Coffee marketing website
Q6 : I feel comfortable using the Atap Bukit Coffee marketing website
Q7 : The Atap Bukit Coffee marketing website is very easy to learn
Q8 : I believe that I will be more productive when using the Atap Bukit Coffee marketing website
Q9: If an error occurs, the Atap Bukit Coffee marketing website gives a notification message about the steps I have taken to resolve the problem
Q10: Whenever I make a mistake, I can go back and recover quickly
Q11: The information provided on the Atap Bukit Coffee marketing website is very clear
Q12: It's easy to find the information I need
Q13: The information provided by this system is easy to understand
Q14: The information provided is very effective in helping me complete my work
Q15: The layout of the information on the monitor screen is very clear
Q16: The appearance of the Atap Bukit Coffee marketing website is very satisfying

Q17: I like to use this kind of Atap Bukit Coffee marketing website display
Q18: This Atap Bukit Coffee marketing website provides all the functions and capabilities I need
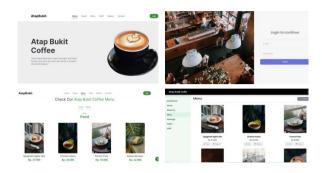Q19: Overall, I am very satisfied with the performance of the Atap Bukit Coffee marketing website

Figure 2. UI Website

These statements were submitted at the questionnaire stage with responses using 5 indicators in each statement, namely, SS for strongly agreeing was worth 5, ST for agreeing was worth 4, RG for undecided was worth 3, TS for disagreeing was worth 2, and STS for very Disagree is worth 1.

After presenting it in percentage form, the next step is to describe and draw conclusions about each aspect indicator using the range of values as follows:

- Very Eligible = 81% – 100%
- Eligible = 61% – 80%
- Decent enough = 41% – 60%
- Not Eligible = 21% – 40%
- Very Ineligible = < 21%

The combination of ratings from the respondents' answers is then processed by the writer in a table to see the collective value of each statement as a variable in UX. This stage is carried out aiming to test the validity of the data that has been obtained previously. This value is then used as a determinant for each UX variable whether it meets the product market fit category or not.

The first assessment is an assessment to test the validity of the statements made in the questionnaire. In testing this validity, the questionnaire was distributed to the initial 10 respondents. The validity test aims to determine whether the 19 statements that have been made and will be submitted to respondents are valid or not. The results of the validity test show that the 19 statements submitted are valid.

Then a questionnaire was distributed to 20 other respondents so that a total of 30 respondents. The assessment this time is the stage in testing reliability, namely how trustworthy the answers from the

respondents are. The final results of these assessments are accumulated and visualized in a graph shown in Figure 2. These results are the final values of the statements which are used as the main aspects of the statements in the questionnaire, namely Q1 to Q19.
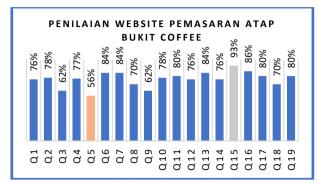

Figure 3. Result of Website Marketing Assessment

Based on the results of the evaluation of the Atap Bukit Coffee marketing website, the score in Q5 was ranked the lowest with a percentage value of 56%. This value is considered very low based on the customer's statement of efficiency in the tasks that must be completed on the marketing website. This explains that the responses from marketing website users conclude that some of the wishes or tasks they want to complete efficiently on the website cannot be achieved. The highest percentage value is in Q15 with a score of 93%. This explains that the Roof Hill Coffee marketing website has an information layout that is very easy for users to understand. Users can easily find the information they want by placing information blocks on the Atap Bukit Coffee marketing website.

Before responding to the results of the user experience assessment in using a marketing website, the author takes a predetermined percentage value range to conclude the feasibility of each aspect of the designed website.

Responding to the results of inferring the value of each aspect of the UX analysis, it was obtained from 19 statements 5 statements received a very proper predicate, 13 statements received a proper predicate, and 1 statement received a fairly decent predicate. From these results, the author concludes by saying that the marketing website from Atap Bukit Coffee is appropriate to be used as a marketing website.

The results and predicates obtained can be very useful when improvements are made to the marketing website. With the results of the analysis, it can be seen which aspects need to be prioritized in the design, as well as the development regarding user satisfaction. Thus, the benefits of many factors can be obtained, for example in terms of time and cost-effectiveness. The time and costs required can be estimated so there is no overtime and over budget.

Table 1. The conclusion of the assessment of each variable in the question

Statement	Percentage	Conclusion
Q1	76%	Worthy
Q2	78%	Worthy
Q3	62%	Worthy
Q4	77%	Worthy
Q5	56%	Worthy enough
Q6	84%	Very worth
Q7	84%	Very worth
Q8	70%	Worthy
Q9	62%	Worthy
Q10	78%	Worthy
Q11	80%	Worthy
Q12	76%	Worthy
Q13	84%	Very worth
Q14	76%	Worthy
Q15	93%	Very worth
Q16	86%	Very worth
Q17	80%	Worthy
Q18	70%	Worthy
Q19	80%	Worthy

V. CONCLUSION

Based on user experience analysis carried out using conventional processes through interviews with 3 informants who have different backgrounds, namely visitors, managers, and owners, raw data is obtained to determine the needs that must be prioritized in website marketing. The results of the interview partially became the source of the questionnaire statements. A total of 19 statements were distributed in the form of a questionnaire to see the direct evaluation of visitors and potential visitors. The value obtained from distributing the questionnaires is then used as a reference for an effective and efficient development process in the future.

The results of the research conducted concluded that several factors from the appearance of the website were satisfactory and some needed to be improved. The survey proves that the appearance the layout of each piece of information from the website is very clear. On the other hand, user efficiency when using the website is still lacking, this means that it is necessary to make

improvements at the stages of completing each task that can be done on the website.

From the research that has been done, it is very important to pay attention to the factors that make website marketing efficient and effective. These factors are completely in the hands of website users. When users can carry out their wishes on the website easily, quickly, and without confusion for users, then it can be said that the website is efficient and effective for users.

After conducting a User Experience analysis, the authors found that the results can greatly influence the development of a business. When we can create a very user-friendly marketing website, users will return and become loyal customers. This is one of the factors that influence the development of a startup business.

The writer's suggestion for future research is to increase the number of quality statements and increase the number of respondents who have a stake in this matter. This can be used as an approach to get the right target and comprehensive output of user needs.

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