

## **ANALYSIS OF INTERACTION DESIGN MODEL IN CONTENT MARKETING DOMAIN USING DESIGN SPRINT METHOD**

ADAM MUKHARIL BACHTIAR\*, DIAN DHARMAYANTI,  
EVAN GILANG RAMADHAN

Informatics Engineering, Faculty of Engineering and Computer Science, Universitas  
Komputer Indonesia, Jl. Dipati Ukur No.112-116, Kota Bandung, Indonesia  
\*Corresponding Author: adam@email.unikom.ac.id

### **Abstract**

This research is conducted to help the User Interface/User Experience (UI/UX) designer to create a more proper UI/UX design in the content marketing domain. The experimental method used in this research was the Design Sprint method. By using this method, an appropriate model of UI/UX in the content marketing domain produced as a result. Several steps, such as understanding of users, creating a better design idea, voting for the best design, prototyping the best design, and testing, were the main content of the discussion. Moreover, a set of prototype and visualization were developed as the output of this research. By using the model, software developers in this domain case could design interaction better and faster.

Keywords: Agile design, Content marketing, Design sprint, Interaction design, Prototype, UI/UX.

## 1. Introduction

Content marketing on social media is now widely used to attract the attention of potential customers. The way to attract the customer is by creating good content which comes from a deep understanding of the intended customer [1]. In the content marketing domain, content marketers research customers with various techniques and tools. One of the tools used is software; i.e., in this research, the software was the solution. The software can be accessed at <https://newsellution.azurewebsites.net> to analyze customer behavior patterns through what they say in social media [2]. However, after conducting usability testing, there was a problem that the software used had a low level of efficiency and effectiveness that affected the user experience.

Based on the findings from usability testing by three participants, it found that the participants were not successful in scheduling posts according to the time recommended by the application. In another task, only 1 out of 3 users could manage the task of contacting buzzers who had content and audiences about food. It also found that the time to complete each task was on average over two minutes. It concluded that 1 in 3 users failed to carry out the assigned task, and the average time needed more than 2 minutes.

The low level of effectiveness and efficiency of the software was contrary to the purpose of usability, where an application must be efficient and effective when used by users [3]. Some methods could be used to make applications more effective and efficient for users. One method that used to make the app effective and efficient was Design Sprint [4]. The design sprint was a method that centred on humans as users. This method was structured, carried out repeatedly, and focuses on users in developing solutions [5]. In this research, the output was an appropriate model of interaction design of the content marketing software domain. The interaction model from this research could help the User Interface/User Experience (UI/UX) Designer in the same domain to make interface design faster and better.

## 2. Research Methodology

The methodology used in this research can be seen in Fig. 1.

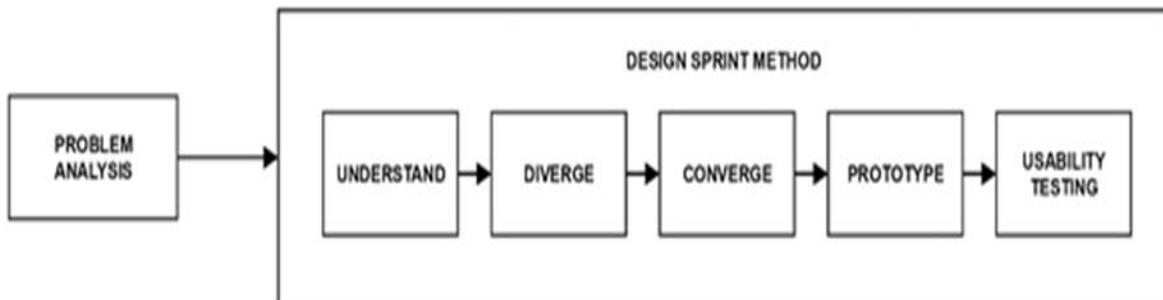


Fig. 1. Research methodology in this research.

### 2.1. Problem analysis

This stage focused on analyzing problems in previous design using usability testing method to see the efficiency and the effectiveness.

## **2.2. Interaction design using design sprint**

This stage focused on designing a new interaction design for this domain. The design sprint used as a method in this research. A design sprint was a specific form of agile design methods [6]. This method divided into five phases, namely: Understand, Diverge, Converge, Prototyping, Usability Testing [7].

## **3. Results and Discussion**

In this section, all stages in the research methodology were explicitly explained. The explanation divided into several parts that consisted of input, process, and output for each stage.

### **3.1. Problem analysis**

Before finding an appropriate interaction design model for this domain, the interaction design model was previously analyzed to find points in the software that need to be fixed. To analyze problems, the method used was usability testing. In this research, three participants were involved in doing some tasks in content marketing using the software. The results showed the average success in doing tasks in only 50% of all tasks given. That results were below from the standard average (standard average were 78%) [8]. Other than that, relative efficiency from all tasks were 68% based on these findings, and it concluded that the software had several problems with efficiency and effectiveness.

### **3.2. Design using design sprint method**

Three participants involved in this stage as a design sprint team (Sprint master was the fourth person). The number of repetitions in the design sprint could customized depending on the needs and characteristics of the domain. For this research, the number of the design sprint was three repetitions.

For each sprint, it divided to understand, diverge, converge, prototype, and usability testing processes. Each sprint had its results. The results and discussions of each sprint were summarized, and here are the results:

#### **3.2.1. Understand the process**

Understand the process conducted for understanding users and their needs in interaction [9]. The method for this process was an in-depth interview. The interview involved three marketers in the content marketing domain. The main objective of the interview was to know purposes, frustrations, characteristics, and what marketers were doing as their daily activities.

In-depth interview, marketers gave 25 questions related to their daily activities in doing their jobs and ways to use apps in the job. From that activity, marketers used Facebook Ads and Instagram Ads to do marketing activity. Customer segment research was an essential thing for marketers to help them did appropriate content marketing for their customers. Other than that, using proper keywords in their content could help to achieve more customers. For the last, marketers also had to monitor their content to measure the performance of the contents.

All of the interview results transformed into persona and user journey maps. From those models, the main needs of users were known, and here are the results:

- a. Marketers wanted to know the target audience faster.
- b. Marketers wanted to know about recommended and relevant keywords faster.
- c. Marketers wanted to monitor their marketing content specifically.

### 3.2.2. Diverge process

This stage focused on generating a design idea to fulfill the needs of marketers in the previous stage. As a result, the design team produced nine wireframes. These wireframes adjusted to the voted storyboard. The results of the voting process for choosing components and information that appeared in the software interface can be seen in Table 1.

**Table 1. The results of choosing components and information for a software interface.**

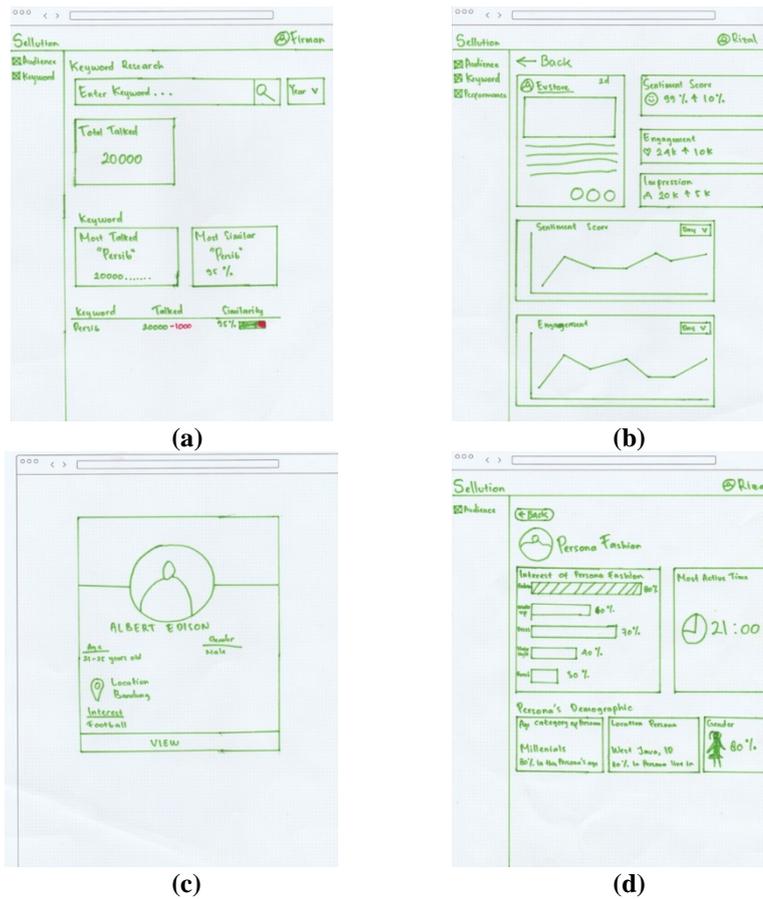
Page	Component	Information
<b>Login</b>	Input text	Input text for inputting email
	Input text	Input text for inputting password
	Button	Button for login
	Button	Button for login using twitter
<b>The persona of the target audience</b>	Card	Persona's photo
		Persona's name
		Interest
		Age category
		Gender
		Location of segment
		Amount of segment
<b>Persona of target audience detail</b>	Card	Gender in segment target audience
	Card	Social media active time
	Card	Segment target audience location
	Card	Common interest
	Card	Location
	Card	Age category

Moreover, several wireframes and storyboards were produced to fulfill crazy 8 (a mandatory process in diverging). An example of a wireframe can be seen in Fig. 2.

### 3.2.3. Converge process

In converge, all information was prioritized using the card sorting method. Card sorting was conducted by using the Optimal Sort tool by giving Table 1 to marketers and let them to prioritized. The results can be seen in Table 2.

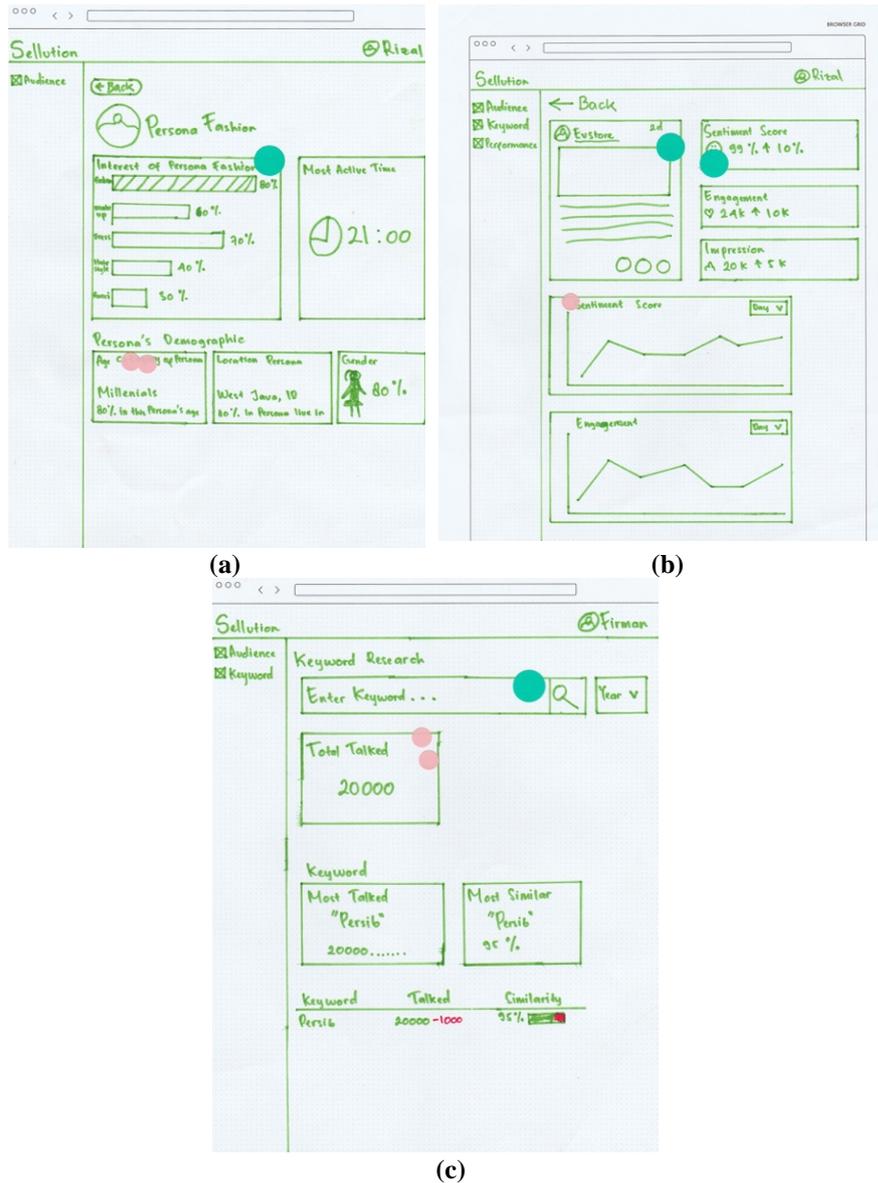
Results from card sorting activity showed that the highest priority for the information in detail of persona page was a common interest, age category, and location. After priorities were known, a sketch of each user interface made using paper prototyping method. Fig. 3. is an example of user interface voting.



**Fig. 2. Example of crazy eight wireframes:**  
 (a) Keyword result; (b) Content performance in detail;  
 (c) Persona of target audience; and (d) Detail of persona

**Table 2. The results of card sorting.**

Page	Priority level	Information	Position
<b>The persona of the target audience</b>	Important	Amount of segment	1
		Location of segment	2
	Very important	Gender	3
		Age category	4
<b>Persona of target audience detail</b>	Important	Persona's name	1
		Interest	2
	Very important	Social media active time	1
		Gender in the target audience	2
	Very important	Common interest	1
		Age category	2
		Location	3



**Fig. 3. Example of voting in the converge stage:**  
 (a) Voting result from persona detail, (b) Voting result from content performance detail, and (c) Voting result from keyword detail

**3.2.4. Prototype using native prototyping**

Prototyping conducted to make the sketches more immersive [10, 11]. Native prototyping chose as the method in this research because of the capability to produce high fidelity prototyping [12]. An example of a prototype can be seen in Fig. 4.

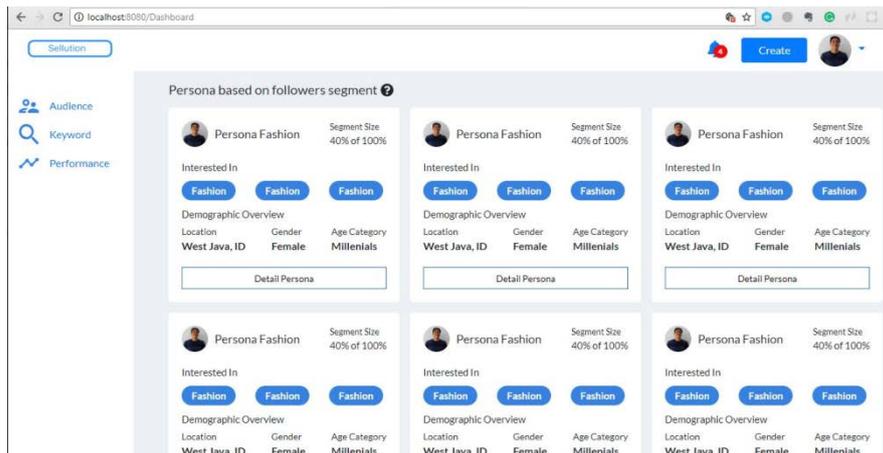


Fig. 4. The interface of target audience information.

### 3.2.5. The results of usability testing

The last stage in this research was usability testing. Similar to the previous explanation, in this usability testing, participants were given some tasks to be done in the prototypes. The tasks divided into poor tasks and better tasks [5, 13]. Six tasks gave to the participants, and all participants could do all tasks properly and without any anomaly. The effectiveness level were 100%, with a 90% satisfaction level.

## 4. Conclusion

The new interaction design model in this research could increase the efficiency and effectiveness level of the software. And, for the next research, there is some plenty of method which can be combined by each stage in the design sprint method. Characteristics of needs and domain can adjust the election of the method.

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