Evaluating the Effective Location of Product Advertising on Facebook Ads

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***Abstract*—Utilization of social media as a marketing tool is growing rapidly, including for SMEs. Social media allows the user to give product evaluations and recommendations to the public. In addition, the social media facilitate word-of-mouth marketing communication. One of the social media that can be used is Facebook, with Facebook Ads. This study aimed to evaluate the location of Facebook Ads, to obtain an appropriate advertising design. There are three alternatives location consist of desktop, right-hand column and mobile. The effectiveness and efficiency of advertising will be measured based on advertising metrics such as reach, click, Cost per Click (CUC) and Unique Click-Through-Rate (UCTR). Facebook's Ads Manager was used for seven days, targeted by age (18-24), location (Bandung), language (Indonesia) and keywords. The result was 13,999 total reach, as well as 342 clicks. Based on the results of comparison using ANOVA, there was a significant difference for each placement location based on advertising metrics. Mobile location was chosen to be successful Facebook Ads, because it produces the lowest CUC, amounting to IDR 691 per click and 14% UCTR. Results of this study showed Facebook Ads was useful and cost-effective media to promote the product of SME, because it could be view by many people in the same time.**

Keywords—marketing communication; social media; Facebook Ads; mobile location

I. INTRODUCTION

Compared with the traditional way, Internet offers more opportunities to interact and participate in the communication process. Currently the Internet is widely used as a means of communication and information spread as it can reach and access many parties simultaneously [1]. Internet penetration rate in Indonesia until the year 2013 was 28% with the number of users reached 71.19 million [2]. This indicates that Internet has enough potential to be used and developed in Indonesia

Seeing these conditions it can be concluded that internet is one of the most powerful marketing media to use than the traditional marketing media. Trend communication of word of mouth marketing has now shifted to word of mouse. The Internet has become a means of communication that is fun and easy to deploy brand related information [1].

One of potential internet-based of marketing media is of social media. Marketing based on social media provides several benefits such as increasing the consumer brand awareness [3], communication facilities between marketers with customers [4], easy to access and obtaining information [5]. Social media is the most widely used by the user at the age of 18-29 years (89%), with the access Facebook every day as much as 70% [6]. Facebook is a social networking site that can allow people to connect and chat in the same community [1]. The number of Facebook users in Indonesia by the year 2013 reached 50.3 million users and is projected to increase to 97.5 million users by 2018 [7]. Therefore, Facebook is a social media potential to be used as a medium for information dissemination.

Because of the wide range of advantages, Facebook can be used as a marketing media through Facebook Ads feature. Facebook Ads allow delivery of advertisements based on several categories, that is, age, location or keywords [6]. Marketing through social media including the use of Facebook Ads on the Internet is an alternative for Small and Medium Enterprises

(SMEs) to reach a wide market in promoting products and promote business with a limited budget [8]. Moreover, based on comparison of paid advertisements on social media, Facebook cost-per-click advertising is the least expensive on $ 0.56, Twitter on $ 1.11, and LinkedIn on $ 5.9 [12].

Research on the Facebook Ads have been carried out such as designing advertising campaigns [6], Perceptions about Facebook Ads [1], and the effectiveness of Facebook Ads [3]. There has been no research on how to design Facebook Ads that fit the needs of the SMEs, specially SMEs engaged in food processing. Therefore, in this study will be designed Facebook Ads suitable for SME in the field of food processing.

II. METHODS

A. Participants

This research was carried out online by involving respondents who are Facebook users with the following characteristics: aged between18 to 24 years, both male and female users, stay in Bandung, Indonesia, using Indonesian language, and enter ads keywords “pariwisata”, “dodol”, and “rumput laut”. This characteristic refers to characteristics that are desired by the SMEs as a research object. Keywords “pariwisata”, “dodol”, and “rumput laut” used because of this SMEs product is “dodol” that made from rumput laut (seaweed). Keywords used here are in Indonesian language because all of the respondents are Indonesian and to ensure the context of the ads to respondents. There are three categories of advertising locations that will be used in this research, such as desktop pages, mobile pages, and the right column of the page [6]. The number of respondents who will be involved in each advertising locations category is 384 people for desktop pages, 398 people for a mobile page, and 384 people to the right column of the page.

B. Facebook Ads Design

Facebook Ads allow users or consumers to be able to interact actively on each page. Users can take advantage of "like" or "share" features and see who the person who gave the same response in each page [3]. Type of ads on Facebook Ads that used in previous studies as follows [6]:

1) “Standard" ads: appears only on the right-hand column on the Facebook page. These ads can connect another Facebook page or external website;
2) Newsfeed ads: appear on the user's newsfeed, can be seen on the desktop Facebook page or mobile app, and can connect to other Facebook pages or external websites;
3) Promoted posts: can appear on the newsfeed page for those who already "like" a page and can be seen through the mobile technology; and
4) Sponsored stories: targeted Facebook friends from users who like the Facebook page and indicates that the user's Facebook friend has a connection to a page through the right side of the newsfeed posts.

This research will be used Facebook Ads that are included in the standard or newsfeed. Standard ads types or newsfeed in the form of a short headline, a picture with a size of 1200 x 900 pixels, a description of the study (up to 90 characters) [9]. Pictures shown may not exceed 20% of the text, and ad content not containing ads of alcohol or drugs. All ads will be reviewed and approved by the Facebook before it can be run and distributed online. In some cases, some ads can be rejected by the Facebook and have to be revised before being able to run again. It can be caused by too large pictures that exceed 20% of the text, with minor changes, such as, set the image size can help to obtain the approval from Facebook [6].

Facebook has a calculation features to calculate the minimal limit cost for each ads created in Facebook Ads. Target audience is determined by Facebook Ads based on the algorithm set by Facebook itself and based on the characteristics respondents that has been include before. This algorithm is used to determine the target number of respondents in this study. Even, this program can optimize the daily spending limit for each ads created. Ads that get more clicks will appear longer [6].

This research will be adopted three types of advertising locations based on the type of ads found in Facebook Ads. Three types of these locations included in the category of Standard or Newsfeed Ads. These three locations are [6][9]:

1. Desktop Page
   Facebook Ads with placements advertising locations are in the main column (timeline) Facebook. The Ads Image that can be shown has sizes of up to 1200 x 900 pixels. The amount of text that can be displayed in the ad is 90 characters. Pictures could not have more than 20% of text.

2. Mobile Page
   Facebook Ads with placement locations is in the main column (timeline) Facebook that is accessed through a mobile device or mobile phone. The amount of text that can be displayed in the ad is 90 characters. Pictures could not have more than 20% of text.

3. Right Column
   Facebook Ads with placements advertising locations is in the rightmost column. Images that can be displayed had a size of up to 254 x 133 pixels. The amount of text that can be displayed in the ad is 90 characters. Pictures could not have more than 20% of text.

C. Measures

Facebook Ads in this research will be made by categories: (a) Product Image; (b) Ads Location: desktop, mobile, and right column; (c) Keywords: "pariwisata", "dodol", and "rumput laut"; (d) Age: 18-24 years; (e) Location: Bandung; (f) Language: Indonesia; (g) Gender: male and female; (h) Cost Type: Cost per Click (CPC), (i) Duration: 7 days equal to 168 hours on air.

There are 13 parameters that can be used in measuring the effectiveness and efficiency of advertising on the internet, they are: click, post-click conversion, cost per conversion, unique reach of delivered ads, average frequency, frequency to conversion rations, advertising exposure time, ad interaction time, view-through rate, share of voice, web page eye tracking, offline sales lift, and cross-media econometric models [10]. The research will use some metric measurements are used also in Facebook Ads, there are reach, unique click, cost per unique click (CUC), and unique click-through rate (UCTR) [9]. All of this metrics are considered sufficient to be able to measure the success of the performance of each type of advertising locations [6].

Facebook Ads Manager program is used for 7 days or 168 hours online for the next step can be measured each location type ads performance. Performance is measured based on the amount of fees required by each ad, the maximum advertising cost is IDR 25,000 per day.

D. Statistical Analysis

For the whole Facebook Ads, the time required to run the ad is for N = 7 days. Difference in performance is measured by using 4 metric measurements, they are, reach, unique click, cost per unique click (CUC), and unique click-through rate (UCTR). ANOVA were run for number of reach, unique click, cost-per-unique-click (CUC) and and unique click-through rate (UCTR). The cost-per-unique click metric was then used to identify individual ads as most successful (lowest third cost per unique click), moderately successful (middle third cost per unique click), or least successful (highest cost per unique click) [6].

III. RESULTS

A. Identification of Facebook Ads Metric Results

Facebook Ads that have been run for 7 days produced performance ads data that can be further analyzed using multiple ad measurement metrics Facebook. Facebook ad performance results with ad placement locations for desktops that run for 7 days resulted in a total advertising reach as much as 2,338 people, 64-click advertising, UCTR value of 2.74%, and the average cost per click of IDR 2.802. Total target ads audience are 9,300 people. Facebook ad performance results with ad placement locations for the right column run for 7 days resulted in a total advertising reach as much as 9.846 people, 24-click advertising, UCTR value of 0,24%, and the average cost per click is IDR 8.036. Total target ads audience are 11,000 people. Facebook ad performance results with the location of a mobile ad placements to run for 7 days resulted in a total advertising reach as much as 1,815 people, 254 click advertising, UCTR value of 14%, and the average cost per click of IDR 69. Total target ads audience ara 73,000 people.

B. Comparison Metrics Between Reach, CUC, Click, UCTR for Dekstop, Right Column and Mobile

Based on the ANOVA test results found that there are significant differences between the results of metric measurements on the location of the ads on desktop, mobile, and the right column ($p < 0.05$). This can be seen in Table 1. To identify the location of the most significant different for each metric measurement with Post Hoc test needs to be done, a summary of the comparison results are shown in Table 2.

TABLE 1. ANOVA TEST FOR METRICS MEASUREMENTS ON DESKTOP, RIGHT COLUMN, AND MOBILE LOCATION

Measurement Metrics	Sig
Reach	**0,000**
Unique Click	**0,000**
CUC	**0,000**
UCTR	**0,000**

TABLE 2. POST HOC TEST RESULT FOR FACEBOOK ADS LOCATION

Comparison of Facebook Ads Location	Measurement Metrics			
	Reach	Unique Click	CUC	UCTR
Dekstop vs. Right Column	0,000*	0,000*	0,000*	0,000*
Dekstop vs. Mobile	0,060	0,000*	0,016*	0,000*
Right Column vs. Mobile	0,000*	0,000*	0,000*	0,000*

*sig. at 0.05

Table 2 is a comparison of test results between the location of the ad placement based on four metrics of Facebook Ads measurement. Comparison of test results showed that there were significant differences between ad placement locations, when viewed from four metric measurements. However, judging from the number of reach, there is no significant difference between desktop with mobile ads location.

C. Analysis and Measurement of Facebook Ads

In this study, Facebook Ads made by categories such as image products, location of the ads, keywords, age, location, language, type of funding and duration. In designing the ads, need more consideration about the size of the headlines used. Headline should be able to attract the attention of ad viewers with headline size larger than the body copy. Ads Image that are shown should be a representative with a message from the body copy. In addition, it should be considered if there is a picture of text, then text size shall not be greater than 20% of total area. Ad type "interaction submissions page" is easier to use in promoting the information contained in a Facebook Fan Page. At the age category, age range between 18-24 years is used to target the Facebook Ads audiences. This is according to the dominance of the age of Facebook users in Indonesia, which is women and men with a lifespan of 18-24 years. Bandung chosen as the location categories, to match a target prospective SME customers. While the "pariwisata", "dodol", and "rumput laut" is used as keyword categories that represent the products of SMEs to be promoted. Facebook Ads measurement results and ads designs that are used are shown in Table 3.

TABLE 3. FACEBOOK ADS MEASUREMENT ANALYSIS

No	Measurement Metrics	Facebook Ads Location		
		Dekstop	Mobile	Right Column
	Ads Design			
1	**Total Reach**	2338	1815	9846
2	**Total Unique Click**	64	254	24
3	**Cost per Unique Click (CUC)**	IDR 2.802	IDR 691	IDR 8036
4	**Unique Click-Through Rate**	2,74%	14%	0,24%

No	Measurement Metrics	Facebook Ads Location		
		Dekstop	Mobile	Right Column
	(UCTR)			
5	**Total Cost**	IDR 175.000	IDR 175.000	IDR 175.000
6	**Success Level**	Moderately Successful Ads	Successful Ads	Unsuccessful Ads

Based on the results of Facebook Ads measurements for 7 days (shown in Table 3), mobile location ads chosen to be the most successful ads. Success level measurement was based on the amount of cost per unique click (CUC) [6]. Facebook ads on Mobile location produces the cheapest cost-per-click ads compared to desktop ads and the right column, which is amounted to IDR 691. It is influenced by the Indonesian internet user data that 62% of Internet users access the Internet through mobile devices [11].

Advertising on mobile location managed to achieve a total reach (the number of audience who saw ads) as many as 1815 people and the number of people who click on ads as many as 254 people. Average size of Unique Click-Through-Rate, the number of people ratio who click on ads by the number of people who saw the ad, for mobile location ads obtain the biggest value, with 14%. Total costs incurred to run ads car location for 7 days is IDR 175,000.

D. Discussion

Overall, this study shows that Facebook Ads is efficient and quite affordable way to be used in the marketing of a product. Minimal cost can be obtained with the capability to be able to reach a population based on location, demographics, or keywords. Strategy to used Facebook Ads has become one of the strategies that is promising to be used in other research areas [6]. It can be concluded that the type of ads that has the most affordable location with the greatest number of unique click through rate is 14%. This shows that, the location of mobile advertising is an ads site that most frequently seen and clicked but has the cheapest cost.

There is one interesting finding from the results of measurements of total reach. In the mobile ads, total reach (the number of audience who saw ads) are 1815 people and the number of people who click on ads are 254 people. Meanwhile, the ads on the right-hand column locations reached a total reach 9846. However, the number of people that click on right column ads only just 24 people. Therefore, the ratio number of people who click on right column ads are the smallest compared to other locations. This indicates that the right column ads location can be used to raise awareness, but it is not effective to be used as a a promotional tool and marketing of primary ad.

Based on the results of the comparison metric measurements using ANOVA ads (shown in Table 1), can be obtained a few points related to the design of Facebook Ads, there are :

- If SMEs want to make Facebook Ads in order to get a lot of number of audience, use a combination of the mobile and desktop ads location can be the best choice to achieve these goals.
- Based on the ad measurement analysis using 4 metrics ads measurement and comparison test between ads, Facebook Ads with mobile location is the best alternative for SMEs the be used to promoting seaweed products dodol.

For future research, there is needed measurement based on other characteristics such as other types of ads than only Facebook Ads. In addition, the target marketing must be explained specifically other than just describe the location of ads with the same image shape. The next study is expected to also consider the condition and behavior of the respondents as well as the viewers of these ads with the purpose of obtaining an effective and efficient marketing strategy.

IV. CONCLUSIONS

Utilization of Facebook Ads as one of effective tools in marketing, because Facebook wore a low enough cost to advertise and reach many people simultaneously. Result shows that mobile location ads has the most significant effect on marketing activities with the lowest cost compared with desktop and right column advertising location are available in the Facebook Ads. This is interesting because in the era of communication nowadays, mobile applications are inseparable in everyday life. This research has limitation, there is only one variable to measure, it is location. Other research can develop any other choice for ads placement other than this location such as image size and choice, font, words used, and any other variable that counts and needed in making ads.

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