



User's Attitude Toward the Impact of Facebook Advertising Mechanism

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Abstract

Facebook plays an important role as a marketing tool in today's business industry. Its algorithm crucially works on tracking users to provide advertisements that users may be interested in. This becomes the research issue on how their personal data were collected without their permission. This research aims to investigate users' attitudes toward its algorithm and also focuses on the impacts of the Facebook advertising mechanism on the users' behaviors and the users' recommendations to adjust the advertising process. Twenty-five respondents participated in this research's interviews, targeting 18-34 years old Facebook users. The results show that the users' attitudes can be divided into two groups. Many respondents perceived the tracking positively as they pointed out that the algorithm suggested relevant or new products that they have not seen, which help them to compare the prices and qualities of products before making a decision. On the other hand, some respondents realized the negative effects of the tracking algorithm. This group of people avoids using Facebook worrying about their privacy. They feel like it is a kind of privacy invasion. Repetitive advertisement is another problem for many users. It is irritating for them to see the products that they have already purchased. The interviewees suggested that there should be an algorithm to check the type of products that they have completed buying. For the privacy concerns, they think it should be better if they can turn off verbal and texting algorithms on Facebook.

Keywords: Facebook, online behavioral advertising, tracking algorithm, attitude, privacy

1. Introduction

The number of social media users has grown sharply and rapidly during the past ten years (Stutzman & Hartzog, 2012). Social media is an internet platform that performs as an online community. People can share information, interests, opinions, and so on. Recently, Facebook has become the most popular social media platform worldwide (Nyoni & Velepini, 2018). In Australia, for instance, two-thirds of adults have a Facebook account (Bucher, 2017). This is a reason why many business companies employ Facebook as a marketing tool.

Within the online technological system, firms develop advertising mechanisms to promote their business and sell their products/services. According to existing research, Advertising mechanisms can be seen as two main forms, which are 1) algorithm and 2) Online Behavioural Advertising (OBA).

An algorithm is defined as a set of mathematical instructions that must be followed in a fixed order, and that, especially if given to a computer, will help to calculate an answer to a mathematical problem. In this case, the program is used for tracking the users' information ("Tracking," 2021). A majority of social media platforms' users notice that they had been tracked, causing distrust that can affect their privacy (Smith, Milberg & Burke, 1996). While, Online Behavioral Advertising, or OBA, refers to a practice that is based on an internet user's browsing activity over time and across multiple websites that allows advertisers to deliver ads that may better reflect the users' interests ("Online Behavioural Advertising | EASA," 2021). OBA is also a significant marketing tool that has been rising during the past decade. Facebook users are willing to have control over their personal data, which means the users can either spread or keep their data secret as they wanted (Solove, 2012). Personalization is a very crucial tool to enhance the users' experience, but at the same time, it also raises privacy concerns (Toch, Wang & Cranor, 2012). Some users also notice that not only their texting has been tracked but also their verbal activity that occurs on social media platforms or in their daily life. Some of the users were surprised that Online Behavioral Advertising, commonly known as OBA, tracked their browsing history to predict which products or services they would be interested in. Those websites or web pages that the users visit over time will lead to the advertisements that the users will be interested in as well (Ur et al, 2012). An increase in



consumers who are concerned about the invasion of their private information could affect all internet activities that collect the users' data (Bandyopadhyay, 2012).

The studies e.g. Jones and Soltren (2005), Nyoni and Velepini (2018), and Kumar, Pabboju & Varma (2013) showed that Facebook users were aware of the privacy of advertising mechanisms, i.e., algorithm and OBA. Both algorithm and OBA could also count as privacy invasion since it tracks the users' everything from texting, location, to verbal communication, either on the platform or in daily life. For this reason, this issue became the primary idea for the author to generate the topic of this study.

This research aims to study the Facebook users' attitudes and the effects of online behavioral advertising (OBA) on their behavior. Negative attitudes towards OBA can impact the brand image of Facebook and those advertising products. Some people may avoid using Facebook or buying products that appear in Facebook ads because they are annoyed by repetitive advertisements or feel uncomfortable about the privacy invasion. This paper will benefit the digital business in terms of the marketing strategy as it may contribute to more understanding of the factors that influence buying decisions.

2. Objectives

The objective of the paper is to identify the users' attitudes and find out whether the results of the Facebook algorithm match the interest of the users. These objectives can be identified as follows.

- 1) To study users' attitudes toward the Facebook text tracking algorithm
- 2) To study the impact of the Facebook advertising mechanism on the users' behavior

3. Materials and Methods

This exploratory research aimed at investigating the attitudes of Facebook users toward the Facebook algorithm that tracks and selects the advertisements to show in the users' feeds. This research paper used the qualitative analysis method to collect data due to its objective to discuss the users' perceptions. The targeted interviewees are 25 Facebook users aged between 18 to 34 years old. Since this age group tends to spend much more time on social media platforms, they are more likely to experience OBA in their daily life. Besides, based on Thailand's social award information, it was pointed out that Thai people whose age is between 18 to 34 years old are the most to have a Facebook account. The One-on-one interview is the method that suited this research paper, and the author would get better quality information. Due to the limited time and resources, the strategy for approaching respondents was posting an announcement about the request of interviewing on the author's personal Facebook. This gathering information process took 1 month to finish (from November 1, 2021, to November 30, 2021). Furthermore, since the announcement that asked for a personal interview was posted on the author's personal Facebook, the respondents also included the researcher's friends or acquaintances.

**Table 1** Interview questions

Part	Questions
I. Demographic background	1) Would you mind telling me your age? 2) What do you do?
II. Facebook user's experience	3) Do you have any Facebook accounts? 4) How many Facebook accounts do you have? 5) How long have you been using Facebook? 6) How often do you use Facebook? 7) When do you normally use Facebook during the day? 8) What is the purpose of using Facebook?
III. Understanding toward Facebook algorithm	9) Have you heard about the Facebook algorithm before? 10) How well do you understand the Facebook algorithm?
IV. Attitudes toward Facebook algorithm	11) How do you feel about the Facebook algorithm? 12) Do you think the Facebook algorithm violates a privacy right? 13) How does an advertisement raised by the Facebook algorithm impact when you use Facebook? 14) What do you normally do when you see an advertisement raised by the Facebook algorithm? 15) How do the advertisements that were raised by the Facebook algorithm impact the products' interests? 16) What do you think is the advantage of the Facebook algorithm? 17) What do you think is the disadvantage of the Facebook algorithm? 18) Do you have any recommendations for developing the Facebook algorithm?

4. Results and Discussion

4.1 Results

As one of the objectives is to study the impacts of the Facebook advertising mechanism on the users' behavior, it is also necessary to know the respondents' general purpose in using Facebook. Thus, it would be possible to notice the consequences of experiencing the targeting ads using OBA.

The majority of the respondents are university students whose age was around 18-23 years old. Only a few of them were of working age, thus the respondents were divided into two groups. Some people were employed full-time while the minority of them were freelancers. Also, most of the respondents had been using Facebook for more than 10 years while only a little number of them stated that their experience in using Facebook was less than 10 years.

1) Facebook Using Behaviors

Today, social media plays a significant role in our society, especially for the younger generations. The majority of the working-age population has social media accounts as it is a convenient option to access information. Facebook has been one of the most popular platforms for more than a decade thanks to its several functions. A lot of people use Facebook as a tool to catch up on the news, keep up with current events, and communicate with their friends. Follows are the statements by Respondents 2 and 6 regarding their purposes for using Facebook.

"My purposes of using Facebook are following the entertainment news and current events. I also use it as one of my contact options" (Interview 2, personal communication, November 1, 2021).

"Facebook is another way to consume news and contact with friends" (Interview 6, personal communication, November 2, 2021).



Some people, however, use Facebook to look for job opportunities. It is important for freelancers to get recognition from their clients. They have to market themselves to get hired. Online advertising is an alternative way for them to advertise. Facebook Page is Facebook's function that allows people to create their homepage to share information about their works or products. Many respondents who work as freelancers have their own Facebook page to promote themselves and contact their clients, as Respondent 5 highlighted;

"There are many reasons that I use Facebook such as following news, contacting friends. Sometimes I buy things that were advertised on Facebook. As I am a freelancer, I also use the Facebook page for advertising and getting recognition from clients" (Interview 5, personal communication, November 1, 2021).

This statement demonstrates that online advertising on Facebook is also one of the methods to increase the percentage of sales. A lot of respondents stated that they used to purchase products from Facebook pages. A large number of the interviewees also mentioned their behavior of using Facebook. Several of them used Facebook at least 1-2 hours a day, so they notice many advertisements every day as Respondent 8 highlighted;

"I use Facebook very often. I always keep browsing on this site for the whole day, so I saw many ads. Sometimes I also buy things from this app. It is pretty convenient" (Interview 8, personal communication, November 10, 2021).

On the other hand, there are a few respondents who rarely used Facebook since there were a lot of social media platforms to choose from. They stated that their purpose for using this app is only to communicate with others and Facebook is the social media that they use the least.

2) Awareness of Facebook Tracking Algorithm

In the present day, a large amount of Facebook users know that they have been tracked by the Facebook advertising mechanisms. One of the reasons why people notice online behavioral advertising (OBA) is that they always see the advertisement for the products or services that they finish searching on their news feeds on Facebook. Respondent 10 mentioned that;

"Whenever I finish searching for any kind of products on the internet, there will be ads of the same kind of products (that I just searched) appearing on my Facebook feed. This is why I know that I was tracked by Facebook advertising mechanism" (Interview 10, personal communication, November 9, 2021).

Moreover, many interviewees realized about the Facebook tracking algorithm because they read the online news or heard it from their friends. This group of people did not have much knowledge about how the Facebook tracking algorithm works. The only thing they know about the algorithm is that they were tracked by Facebook to use their information for marketing purposes, as Respondent 12 highlighted;

"I do not know much about the algorithm. I only know that my browsing history was tracked, and Facebook uses the information to predict the products I may be interested in, then ads of that kind of products will pop up on my feed" (Interview 12, personal communication, November 4, 2021).

These responses show that the majority of the respondents were aware of the Facebook advertising mechanism that is used for tracking and collecting their personal information to select which advertisements will appear on their Facebook feeds.

3) Users' Attitude Towards Facebook Tracking Algorithm

Since the Facebook tracking algorithm is already known. A lot of people started to raise the issue that Facebook invades users' privacy by collecting and sharing personal data with product or service companies. Some people are concerned about their safety while they use Facebook. Many respondents mentioned that they are not willing to share their private information and personal interests with any companies without their permission. They feel uncomfortable about this kind of privacy invasion. However, some interviewees had a positive perception of the tracking algorithm. This group of respondents stated that the tracking algorithm is also useful. It can help them to get the products that they want and that they can make a price comparison before purchasing.

Some respondents had a positive attitude toward the Facebook advertising mechanism. They pointed out that there are many benefits of the tracking algorithm. Firstly, it can fulfill their needs when



they want to purchase products or services since the algorithm also suggests the relevant products (not only the product that they searched for). For example, if the user searches for a golf club, the relevant products such as a golf ball will appear on their feeds. Respondent 7 commented about this that;

“Although I rarely use Facebook, advertisements raised by this app are also useful for me when I want to buy any kind of product. The good thing is I can also see the ads of the relevant products e.g. if I search for a golf club, there will also be the ads for a golf ball on my feed” (Interview 7, personal communication, November 4, 2021).

Secondly, however, some people did not feel uncomfortable knowing they were tracked. This group of interviewees did not think that Facebook violates their privacy rights since they use other social media more than Facebook. Thus, privacy invasion on Facebook was not their priority concern as Respondent 14 stated that;

“I do not know much about the tracking algorithm. I do not worry about it because I rarely use Facebook. I do not think it invades my privacy” (Interview 14, personal communication, November 10, 2021).

Thirdly, another advantage of the tracking algorithm is that users can compare the qualities and prices of the products that they seek. The users will see a lot of advertisements at the same time. It is convenient for them to select the product that best suits their needs as Respondent 15 stated that;

“Facebook ads can affect my purchasing decision. Because I see a lot of ads at the same time, I can compare prices and qualities of the products before I buy” (Interview 15, personal communication, November 3, 2021).

Fourthly, the advertising can convince some users to spend more time on Facebook. Some respondents replied that one of the reasons that they use Facebook is because of its advertisements. It can make them discover new products or new brands that they have not seen before as some part of the statement from respondent 4:

“I spend more time on Facebook because of the advertisements. I discovered many products and brands. If there is an interesting product, I usually click the ads link and buy that product” (Interview 4, personal communication, November 1, 2021)

This statement demonstrates that Facebook advertising also affect people’s decisions. It is one of the opportunities to raise brand awareness. People may purchase more goods after they see the advertisements. Lastly, several people pointed out that Facebook is considered another option for them to seek the products or services that they wanted. These are the people’s positive perceptions of the Facebook tracking algorithm that we can find.

Although some people perceived the tracking algorithm in a positive way, some groups of our respondents focused on its disadvantages. A large number of the respondents mentioned that the Facebook tracking algorithm makes them feel uncomfortable. Facebook should not collect and share information without their permission. This kind of action can be considered a privacy invasion and can be another reason why some people avoid using Facebook. Respondents 11 and 17 agreed that;

“I only use Facebook once a week. I heard about the tracking algorithm, so I feel uncomfortable using this app. It is like Facebook violates my privacy rights” (Interview 11, personal communication, November 6, 2021).

“I seldom use Facebook. I tend to use other apps since I heard about the tracking. This is a privacy invasion” (Interview 17, personal communication, November 2, 2021).

These comments show that there are people who are concerned about their privacy rights while using Facebook and try not to use this website since they are frustrated. Besides, one of the important issues that cause the negative point of view toward the Facebook algorithm is that there are too many advertisements appearing on the user’s feeds. It is irritating for people who do not have the desire to purchase any products. The users probably scroll through the essential news because of these too many advertisements. Many interviewees responded that they were not interested in most of the advertisements that appeared on their Facebook and they only pay attention to the attractive ads as Respondent 19 highlighted;



“I do not really pay attention to Facebook ads. If the ads are not interesting, I will just scroll through them. I only look at the ones that are attractive” (Interview 19, personal communication, November 1, 2021).

Moreover, a few interviewees raised the problem about seeing the advertisements for the products that they already purchased. The algorithm keeps raising the ads for the same type of products. Even though the users clicked the link and finished purchasing. This situation also contributes to the negative feeling about Facebook. It makes them feel disturbed as respondent 20 stated:

“Facebook kept raising the ads of the same products even though I already bought one of them. It is annoying” (Interview 20, personal communication, November 9, 2021)

Furthermore, sometimes Facebook tracking algorithms cannot respond to the users’ needs. One of the respondents mentioned that Facebook showed ads that they were not interested in. Facebook tracked their Messenger (texting app that links with Facebook), then recommended products or services that they texted with their friends. Sometimes they (the products) are not actually what he/she wants as Respondent 22 mentioned;

“I used to see ads of the products that I just chatted with my friends. Sometimes I did not really want those products. I just mentioned them, and I kept seeing the ads. It is irritating” (Interview 22, personal communication, November 4, 2021).

Lastly, advertising illegal products is a significant issue that the respondents focused on. Facebook also advertises illegal products to the users (the products that are legal in the US but are illegal in some countries). For example, one of the interviewees mentioned seeing the advertisements for sex toys that are considered illegal in Thailand.

4) Recommendations from Respondents.

The recommendations from the respondents mainly concern too many advertisements. They suggested that Facebook should not show a lot of ads on their feeds, especially the same type of products they have already purchased. Their advice is to have an algorithm that checks which ads they clicked and finished buying, so they will not have to see those advertisements they are not interested in anymore. Privacy concerns are another recommendation. Even though it is possible to turn off some tracking algorithms on Facebook, many users are still concerned about their privacy. Some kinds of tracks cannot be shut down, such as verbal and texting. They were tracking without the users’ willingness. Thus, the respondents pointed out that there should be a function to turn these kinds of tracking off to make them feel safer using Facebook.

4.2 Discussion

The finding of this paper demonstrates that the respondents’ perception of the Facebook advertising mechanism can be divided into two groups. Some respondents thought it is useful for them since they can find products or services that actually meet their needs. This group stated that the algorithm helps them to compare the prices and qualities of the products before making the decision and they can discover new brands or products. This type of result seems to correspond with the research “Optimizing display advertising markets: Challenges and directions” (Korula, Mirrokni, and Nazerzadeh, 2015), which mentioned the benefit of Facebook ads as an alternative option for customers to compare the prices and qualities of products. Seeing ads on Facebook can encourage users to buy the products. However, another group of respondents negatively sees the advertising mechanism. This group was seriously concerned about their privacy. They felt uncomfortable that Facebook collected the information they were not willing to share. The topic was related to the research “Smart, useful, scary, creepy: perceptions of online behavioral advertising (Ur et al, 2012), which also stated that the majority of the users are not willing to share their personal information on the internet. Sharing personal information without permission is also a topic that was a concern by the respondents. This issue is similar to the study that was written by Bandyopadhyay (2012) that emphasized the consumer consciousness of collecting personal data without their permission for misuse purposes. People realize that they cannot control the misuse of their personal information. They do not have the authority to decide which data will be collected and used. The last problem that was raised is



seeing too many advertisements. Many people mentioned that it was annoying to see a lot of ads, especially if they had already bought that kind of product. The repetitive advertisements topic was also found in How much information? Effects of transparency on trust in an algorithmic interface. This study by Kizilec (2016) stated that facing repetitive advertisements could reduce the trust of the users towards those platforms, which consequently causes negative attitudes. These are the main factors why some interviewees avoided using Facebook.

There are two adjustments recommended by the respondents. Firstly, the algorithm should not continue showing advertisements for the same products that the users have already purchased. Secondly, Facebook should allow users to turn off any kind of tracking algorithm that they want. The first recommendation shows that repetitive advertising is not always beneficial to companies. It may cause irritation because the users keep seeing the same thing many times. The second recommendation focuses on being able to control all privacy permissions by themselves.

The result of this research has many benefits which can be distinguished into two categories (1) the implication for academics and (2) the implication for business. For the academic contribution, the result in this paper demonstrates the factors that can contribute to the negative and positive perceptions of the users towards the Facebook platform and how Thai people react to online marketing. Moreover, the result is useful for business owners who attempt to increase the revenue of their businesses. It also provided recommendations for the adjustment of the marketing strategies. For example, repetitive advertising is not always effective. Sometimes it can irritate the customers who do not want to buy those products, so they will not pay attention to those ads. This finding can be a guideline for business owners who seek new marketing strategies.

5. Conclusion

Since social media users were aware of the tracking algorithm, a good number of them started to question Facebook about their privacy while using those apps. Facebook is one of the most popular social media with millions of users. There are three main objectives of this research. The first is to investigate Facebook users' attitudes towards its advertising mechanism. Secondly, this study aimed to identify the users' behaviors after they notice that they were tracked by Facebook. Lastly, the author sought recommendations from the users to develop the advertising mechanism until it meets the users' satisfaction. 25 respondents who are around 18-34 years old Facebook users were interviewed to gather information about their attitudes. The result shows that several respondents pointed out that sharing their information with third parties without their permission is their priority concern while another group of users raised an issue about repetitive advertising being annoying. The respondents were not willing to see a lot of advertisements that they were not interested in or had already purchased. The positive point of view that was mentioned in this paper is the algorithm can benefit the users in terms of comparing the prices and qualities of the products before purchasing. Some of the interviewees informed that they can discover new brands or products through Facebook advertisements. Recommendations for adjustment are also included. The capability of turning off the tracking is their main suggestion. Another suggestion is to have the algorithm check the type of products that the respondents have already finished buying. The result can lead to the creation of new online marketing strategies, but the problem is the number of respondents is limited. It cannot represent the entire community of social media users. Online interviewing can be considered another obstacle. Seeing the interviewees in person may contribute to more in-depth information.

The recommendations for ongoing research would be to reach more respondents who have a variety of backgrounds to cover more information for the research. This research specifically focused on advertising on the Facebook platform. It would be great if the scope of the study expands to be able to fully represent every opinion of social media users. The scope of this research was only about advertising while there are many more aspects of social media that impact the users' attitudes.



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