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**Effect of Online Behavioral Advertising Implementation on
Attitude toward Ad and Purchase Intention in Indonesian E-
Marketplace**

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Abstract: Internet user increase certainly support e-commerce growth. So some e-commerce companies perform online behavioral advertising (OBA) to get consumers as much as possible. The current study uses retargeted ads as a kind of the latest OBA which most of e-marketplaces in Indonesia implement the ads. Survey in the form of questionnaire from 261 respondents. The respondents were showed by author the example of e-marketplace's online behavioral advertising picture and video first before answering the questionnaire. It is intended to recall respondents that they have ever seen ads similar to OBA. The result of this study revealed that OBA threatened consumer privacy, so led to cognitive and affective reactance. Perceived ad intrusiveness also had positive effect on perceived threat. OBA led negative attitude toward the ad and finally negative consumer purchase intention toward product which displayed on OBA.

Keywords: Online Behavioral Advertising; Retargeted Advertising; E-Marketplace; Attitude toward The Ad; Purchase Intention

Introduction

E-commerce becomes one of the most competitive industries in Indonesia over the last half decade. Because of technology advances in digital era, it offers a new concept that business transactions which people do not have to meet directly to make the process of buying and selling. The traditional retail with store-based concept must be prepared to transform to face its new competitors is the electronic commerce industry or e-commerce. The development of e-commerce is supported by several factors including internet supporting infrastructure advance, the evolution of smartphone and computer sophistication, the convenience and security of payment methods, software and website which were user-friendly, and the change of consumer behavior and mindset digitally.

The growth of e-commerce in Indonesia is certainly supported by the increase in internet users. The survey conducted by Association of Indonesian Internet Network Providers

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(APJII) throughout 2016 found that 132.7 million Indonesian populations were connected to internet. As for the total population of Indonesia itself as much as 256.2 million people. It indicates 51.8% of total Indonesia population connecting to internet. It is greater when compared to internet users amount in 2014. There were 88 million internet users in Indonesia during 2014.

Economic census conducted by Indonesia Central Bureau of Statistics (BPS) in 2016 revealed that e-commerce in Indonesia increasing 17% from 2006 to 2016 with total e-commerce businesses were 26.2 million in 2016 (Abdurrahman, 2017). E-commerce in Indonesia has penetrated US\$ 5.6 billion in the last year (Winosa, Listiyarini and AB, 2017). According to Statista (2017), the number of digital buyers in Indonesia who made transactions was 28.1 million people.

The growth of e-commerce as well as the increase of internet users will create a high business competition. Internet will change the way consumers in assessing, comparing, and evaluating a brand because it provides information about product. It becomes a challenge for e-commerce to maintain existing users and reach potential customers and markets. E-commerce companies in Indonesia with the largest number of website visitors during January until November 2017 were Lazada, Tokopedia, Bukalapak, Blibli and Shopee (iPrice, 2017). The e-commerce companies were categorized as e-marketplace companies. However, people may access e-commerce website through three ways i.e. browsing on laptop or computer, browsing on smartphone and via mobile apps on smartphone. More specifically, e-commerces in Indonesia with the most visitor traffic either through website or mobile apps during January until June 2017 were Lazada, Blibli, Tokopedia, Elevania, and MatahariMall (Nathania, 2017). The e-commerce companies were also categorized as e-marketplace companies.

Obviously, the company do various form of offerings and promotions effectively and efficiently with the intention to get more consumers and generate profits as much as possible. A kind of online advertising which implemented by e-marketplace in Indonesia is retargeted ads. The ads is categorized as online behavioral advertising that tracks and compiles individual internet user's online behavioral data, such as what websites he visited, how long he stayed there, and what they did (e.g., shopping; searching; surfing) (Ham, 2017). OBA allows internet ad network companies to predict individual consumers' specific interests and preferences in a timely manner and as a result, to selectively expose consumers to advertising tailored specifically to them (Ham, 2017).

E-marketplaces use the principle of behavioral tailoring to display ads that correspond to each consumer's online activities and personal characteristics. So it was expected to meet individual information needs. Ads tailoring is not only on the ads in the website, but also in social media apps in smartphone. When marketers create messages that use consumer information that's *too personal*, or where the tailored messages appear in contexts that are *too private*, to the extent that the consumer perceives the message as "creepy (Barnard, 2014). Creepiness is a scary thing when one realizes that the ads displayed contain messages related to personal information and browsing history so that the ads was perceived as interfering with internet users (perceived ad intrusiveness). Some internet users also felt that their privacy was threatened, so they did not feel free when they are browsing because their identities was used to display appropriate ads.

White et al. (2008) found that if too much personalization on online advertising, it could be backfire to a brand or marketer because freedom of behavior threatened by persuasive messages on the ads. Psychological reactance is a rejection statement that will occur when a freedom is threatened. The freedom means that a freedom of each individual in determining emotional, attitudes, and actions (Brehm, 1966; Dillard & Shen, 2005).

Although generally every ad aims to appeal consumers, displayed online behavioral advertising (OBA) does not always receive positive consumer response, especially if the ad threatens the individual's freedom to remain comfortable when browse and use social media. A previous study about OBA shown a negative impact on attitudes toward the ad and positive purchase intention on the featured product (Barnard, 2014). This study uses retargeted ads as latest online behavioral advertising that has been implemented by most e-commerce categorized e-marketplace in Indonesia. This study focuses on the effect of behavioral tailoring of retargeted ads on creepiness, perceived ad intrusiveness, threat, reactance, attitude toward the ad and purchase intention. According to Morimoto & Chang (2006), perceived intrusiveness of each consumer can increase perceived threat or lack of control. Therefore, in this study perceived intrusiveness serve as an antecedent of the threat. So it can be analyzed influence perceived intrusiveness to threat at context of online behavioral advertising.

Literature Review

Online Behavioral Advertising

Behavioral targeting or online behavioral advertising is conceptualized as the use of past online behavior (identified through "click" data that consumers have made) to tailor ads for each consumer (Goldfarb and Tucker, 2011). Internet user behavior is tracked by website from time to time through the use of cookies. Ads, recommendations, or individualized experience are then generated for certain consumers based on online behavior that has been done previously. Cookies are a set of text stored by visited websites on computers, laptops, tablets, and smartphones. In general, cookies keep the settings and preferences of each individual for a particular website, such as the language or location (country) selected. When a person returns to the website, the browser will send the corresponding cookie to the website. Retargeted advertising is a kind of online behavioral advertising (Goldfarb and Tucker, 2011).

Retargeted advertising is a kind of online behavioral advertising (Goldfarb and Tucker, 2011). Retargeted ads are banner ads that use data recorded in cookies to tailor ads based on consumer browsing history. The products that will be displayed on retargeted ads which implemented by e-marketplace in Indonesia depend on what products have been viewed by consumers when they was surfing in the e-marketplace website. Retargeting ads appear on other blogs or websites that provide advertising space. These ads also appear in the timeline of social media applications on smartphones including Facebook, Instagram, Path, etc. In general, retargeted ads which implemented by e-marketplace in Indonesia are banner ads, not pop-up ads that cover content on web pages.

Behavioral Tailoring

Behavioral tailoring is defined as an adjustment based on the behavior each individual has performed. When analogous to advertising, marketers can use the tailoring principle to display ads that fit the personal characteristics of each consumer that is expected to meet the information needs of each individual. With the existence of behavioral tailoring, marketers expect the ads that appear to display in accordance with the behavior of each consumer. With the convenience of technology, various online advertising display ads which tailor to the characteristics, profiles, preferences, and browsing history of each internet user. Ad tailoring is not only happen on the ads on the website, but also the ads on social media applications on smartphones.

Creepiness

The personalized advertisement belonging to a customized ad was too accurate sometimes (Adolphs & Winkelmann, 2010; White et al., 2008) or "over-personalized" which means its accuracy is too high. The ad contains too much personal information about a person which the ad is regarded as a nuisance and creepy. So more personalized an advertisement, more creepiness on consumer. Creepiness occurs when an advertisement that is displayed overly adjusts to one's privacy and is invasive. So the consumer feels that the privacy he has been known, followed, observed and tracked. In addition, creepiness occurs when the consumer realizes that the ad viewed on the website page or social media has been adjusted to the browsing activity that has been done before. When marketers create messages that use consumer information that's *too personal*, or where the tailored messages appear in contexts that are *too private*, to the extent that the consumer perceives the message as "creepy" (Barnard, 2014). So, the first hypothesis in this study :

H₁: Behavioral tailoring on online behavioral advertising which implemented by e-marketplace in Indonesia will positively effect on perceived creepiness.

Psychology Reactance Theory

Based on previous research, perceived advertising intrusiveness consists of several dimensions including interference with someone's privacy (Sipior and Ward, 1995; Teeter and Loving, 2001), cognitive and task performance (Li, Edwards and Lee, 2002), and content distractions media (Ha, 1996). Perceived ad intrusiveness is typically defined as ad interference with the user experience, and it has been associated in past research with content that *interrupts* user activity, such as a pop-up ad. In previous study conducted by (Barnard, 2014), perceived ad intrusiveness was a manipulation check, not as a variable in research model. However, according to Morimoto and Chang (2006), it is possible that perceived intrusiveness can increase perceived threat or lack of control. Moreover, this study argues that creepiness functions in the same way. Threat or lack of control is a contributing factor in what is called reactance theory. Reactance theory suggests that when persuasive appeals *threaten a person's individual freedom*, people are motivated to resist or reject the message and feel more negatively about the source of the message (Brehm & Brehm, 1981). The mean of freedom is the freedom of each individual in determining emotional, attitudes, and actions (Brehm, 1966; Wicklund, 1974; Dillard & Shen, 2005).

H₂: Perceived creepiness will positively effect on threat

H₃: Perceived ad intrusiveness will positively effect on threat

As explained by Morimoto and Chang (2006), if an individual finds an ad intrusive, she may feel her control over her own choices and behaviors has been threatened, which can lead reactance. Psychological reactance theory explains when a person is threatened, then there will be affective reactions and cognitive rejects (Dillard and Shen, 2005). Affective reactance in the form of anger arousal that how much online behavioral advertising makes a person feel irritated (irritated), angry, disturbed, and aggravated (Barnard, 2014). Cognitive reactance is unfavorable thought when someone sees an online behavioral advertising that threatens his freedom to keep his browsing and privacy (Barnard, 2014).

H_{4a}: Greater threat will result in greater affective reactance

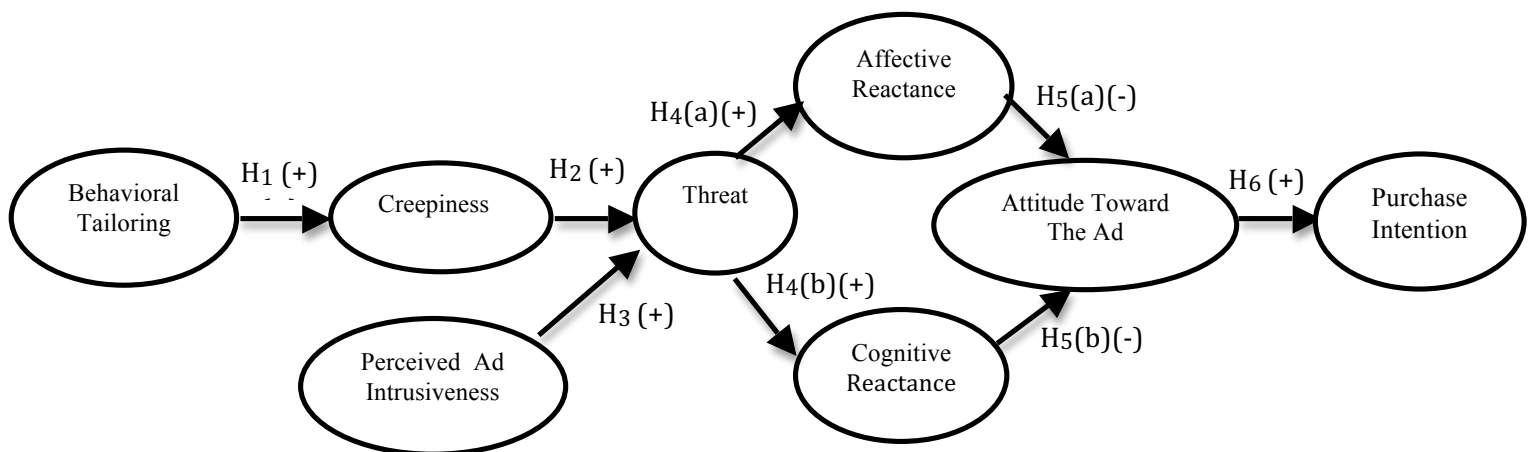
H_{4b}: Greater threat will result in greater cognitive reactance

In a field experiment, Goldfarb and Tucker (2011) found that while either matching ad to webpage's content or increasing an ad's visual obtrusiveness separately increases purchase intent, but when used in combination, the tactics were ineffective. They argued this was a result of reactance thanks to privacy concerns on behalf of the consumer, because the combination of these tactics may raise a red flag that signals the advertiser is trying to manipulate the consumer (Goldfarb & Tucker, 2011). Research on traditional advertising has shown that when consumers perceive manipulative intent they have more negative attitudes toward the ad and the brand, and decreased purchase intent (Campbell, 1995). Negative consumer reactions are defined as consumers feel threatened because they realize that the retargeted ad contains personal information. The positive or negative reactions generated after the consumer saw the advertisement which will result the consumer's attitude toward the advertisement (MacKenzie et al., 1986). Affective and cognitive reactance will form attitude toward ad that express likes or dislikes over time (Schiffman and Kanuk, 1997). Thus, the fifth hypothesis in this study as follows:

H_{5a}: Affective reactance will negatively effect on attitude toward the ad.

H_{5b}: Cognitive reactance will negatively effect on attitude toward the ad.

Figure 1. **Research Model**



When attitudes toward ads are formed, it can affect consumer behavior including attitude toward brand and purchase intention (Barnard, 2014). In addition, consumers tend to have stronger intention to buy product when consumers positively react to the product advertising (MacKenzie and Lutz, 1989; Haley and Baldinger, 2000). And then, the last hypothesis:

H₆: Attitude toward the ad will positively effect on purchase intention.

Methods

Sample

A total of 261 respondents which had ever visit e-marketplace website in Indonesia and saw online behavioral advertising which implemented by the e-marketplace.. Of the participants, 136 (52.1%) were female 125 (47.9%) were male. The respondent age range from 17 to 40 years old and over 71.3% total respondents were in range 21 to 25 years old. The most number of education level was bachelor degree (79%, N=206). With regard to online shopping expenditure level per month, most of respondents (51%, N = 133) had expense of 0 – 500000 rupiahs. In addition, a majority of the participants had browsed e-marketplaces website 1 to 5 times in the last month (39%) and had viewed their online behavioral advertising 1 to 5 times in the last week.

Data Collection

The respondents were showed by author the example of e-marketplace's online behavioral advertising picture and video first before answer the questionnaire. It is intended to recall respondents that they have ever seen ads similar online behavioral advertising. So, the respondent number in this analysis did not include 27 respondents who had never seen online behavioral advertising which implemented by the markeplaces. Respondents read the study instructions first before answering either offline or online questionnaire about online behavioral advertising. Then, respondents were asked to complete the demographic questions.

Measure

There were 34 items used in this study with 6-point Likert scale which ranged from strongly disagree (1) to strongly agree (6). Four items of behavioural tailoring were adopted from (Barnard, 2014). Four items of creepiness were adapted from (Barnard, 2014). Perceived ad intrusiveness was also measure. This measure was adapted from the ad intrusiveness scale developed by Edwards et al. (2002). Four items were asked to test whether the advertisement was perceived as a threat adapted from Quick & Stephenson (2008) and Dillard & Shen (2005). The study of reactance theory shows that state reactance can be observed in both affect (anger arousal) and cognition (unfavorable thoughts). Affective reactance was measured by seven items. Cognitive reactance: Unfavorable thought (cognition) was measured by 3 items adapted from Dillard et al. (1996). Participants' attitudes toward the advertisement was measured by 6 questions, adapted from Dillard and Shen (2005). Three items of purchase intention were adapted from Dillard & Shen (2005) and Girona (2014).

Findings

The proposed model was tested using LISREL 8.8 Full Version in a two-step process. First, confirmatory factor analysis (CFA) was executed to confirm whether overall measurement model and each construct individually demonstrated appropriate reliability and validity. Second, structural equation modelling (SEM) was applied to examine hypothesis in proposed model (Anderson & Gerbing, 1988).

Measurement Model

The quality of measurement model was assessed using Confirmatory Factor Analysis (CFA). The item will be dropped if it does not adequately represent the one-dimensional character of every study concept based on modification index (Hair et. al, 2009). An item of attitude toward the ad has to drop because its standardized loading factor is $0.38 < 0.5$. The item is “I am good to the ad”. After dropping the item, all standardized factor loadings in model of measurement were significant ($p < 0.001$). Table 2 showed CFA results.

The factor loading of all indicators exceeded the recommended value of 0.5 (Hair et al., 2009). The construct reliability (CR) of all indicators exceeded the recommended value of 0.7 (Hair et al., 2009) and the average variance extracted (AVE) of all indicators exceeded 0.45 which indicators with AVEs between 0.45 and 0.5 were marginally accepted (Hair et al., 2009).

Overall model statistical analysis indicated that χ^2 (561) was 1125.54 ($p < 0.01$). While the chi-square test rejected a perfect fit between data and the model, it is extensively accepted that the chi-square test is sensitive to sample size. The goodness-of-fit index (GFI) was 0.80, the root-mean-squared-error-of-approximation (RMSEA) was 0.068, Normed Fit Index (NFI) was 0.92, Relative Fit Index (RFI) was 0.91, Incremental Fit Index (IFI) was 0.95 and Comparative Fit Index (CFI) was 0.95. Overall fit index of the model were acceptable.

Table 1. Goodness of Fit Statistic

Parameters	Result
χ^2 (degree of freedom)	1125.54 (561)
RMSEA	0.068
GFI	0.80
NFI	0.92
RFI	0.91
IFI	0.95
CFI	0.95

Table 2. Result of Confirmatory Factor Analysis

Construct and Measurement Item	Mean	SD	SLF	CR	AVE
Behavioral Tailoring				0.81	0.51
1. The ad was tailoring according to my interests	4.42	1.321	0.73		
2. The ad have anything to do with me or my life	3.88	1.297	0.61		
3. The ad featured a product I have seen in the past	5.00	1.054	0.72		
Creepiness				0.94	0.78
1. Viewing the ad make me think that I had been watched	3.87	1.462	0.72		
2. Viewing the ad make me think that I had been observed	4.07	1.422	0.70		
3. Viewing the ad make me think that I had been followed	3.72	1.496	0.76		
4. Viewing the ad make me think that I had been tracked	3.96	1.431	0.50		
Perceived Ad Intrusiveness				0.77	0.46
1. Disturbing	4.39	1.292	0.93		
2. Forced	4.23	1.360	0.92		
3. Interfering	4.78	1.142	0.85		
4. Intrusive	5.05	1.139	0.84		
Threat				0.78	0.47
1. The advertiser threatened my freedom to choose	3.41	1.346	0.68		
2. The advertiser tried to make a decision for me	3.80	1.353	0.66		
3. The advertiser tried to manipulate me	4.47	1.239	0.57		
4. The advertiser tried to pressure me	2.98	1.368	0.66		
Affective Reactance				0.90	0.58
1. How much the advertisement made you feel irritated	3.35	1.302	0.63		
2. How much the advertisement made you feel angry	4.26	1.167	0.65		
3. How much the advertisement made you feel annoyed	4.09	1.220	0.79		
4. How much the advertisement made you feel aggravated	3.99	1.418	0.87		
5. When the advertisement offers me something to buy, I feel like resisting it	3.09	1.422	0.73		
6. When the advertisement offers me something to buy, I feel like ignoring it	4.19	1.325	0.86		
7. When the advertisement offers me something to buy, I feel like dismissing it	4.15	1.391	0.73		
Cognitive Reactance				0.74	0.48
1. The ad was pleasant (reverse-coded)	4.29	1.143	0.76		
2. The ad got in the way of what I wanted (reverse coded)	3.24	1.150	0.67		
3. The ad was reasonable (reverse-coded)	3.12	1.172	0.65		
Attitude Toward The Ad				0.91	0.67
1. Favorable	2.87	1.155	0.78		
2. Positive	3.58	1.159	0.61		
3. Desirable	2.53	1.248	0.85		
4. Necessary	2.62	1.231	0.92		
5. Beneficial	2.87	1.186	0.89		
Purchase Intention				0.94	0.84
1. I intend to purchase products or services from the ad in the near future	2.98	1.217	0.95		
2. I plan to purchase products or services from the ad in the near future	2.97	1.194	0.93		

SLF = Standardized Loading Factor

CR = Construct Reliability

AVE = Average Variance Extracted

Structural Model for Hypothesis Testing

SEM results are shown in table 3. There is a significant relationship if $t\text{-value} < -1.96$ or $t\text{-value} > 1.96$. First, there is a positive significant relationship between behavioral tailoring and creepiness ($\beta = 0.24$, $t\text{-value} = 3.48$, $p < 0.01$). Therefore, the hypothesis H_1 that behavioral tailoring will positively effect on creepiness is supported. Second, there is a positive significant relationship between creepiness and threat ($\beta = 0.36$, $t\text{-value} = 5.49$, $p < 0.01$). Thus, hypothesis H_2 that creepiness will positively effect on threat is supported. Third, after testing the hypothesis that perceived ad intrusiveness will positively effect on threat, we found that there was a positive significant relationship between perceived ad intrusiveness and threat ($\beta = 0.60$, $t\text{-value} = 7.52$, $p < 0.01$). Thus, hypothesis H_3 is supported.

Fourth, upon testing the hypothesis that greater threat will result in greater affective reactance (H_{4a}), there is positive significant relationship between threat and affective reactance ($\beta = 0.67$, $t\text{-value} = 7.09$, $p < 0.01$). In addition, the results shows that cognitive reactance increases if consumers feel their freedom threatened (H_{4b}). There is positive significant relationship between threat and cognitive reactance ($\beta = 0.16$, $t\text{-value} = 2.03$, $p < 0.01$). Thus, hypothesis H_{4a} and H_{4b} are supported. Fifth, there is negative significant relationship between affective reactance and attitude toward the ad ($\beta = -0.11$, $t\text{-value} = -2.11$, $p < 0.01$). And also there is negative significant relationship between cognitive reactance and attitude toward the ad ($\beta = -0.74$, $t\text{-value} = -8.84$, $p < 0.01$). Therefore, the hypothesis H_{5a} and H_{5b} that affective and cognitive reactance will negatively effect on attitude toward the ad are supported. Sixth, there is positive significant relationship between attitude toward the ad and purchase intention ($\beta = 0.60$, $t\text{-value} = 9.65$, $p < 0.01$). Thus, negative attitude toward the ad will result negative purchase intention (H_6) is supported.

Table 3. Results of Structural Equation Model Test

Hypothesis	Path	Correlation Coefficient	T-value
1	<i>Behavioral Tailoring</i> → <i>Creepiness</i>	0.24	3.48
2	<i>Creepiness</i> → <i>Threat</i>	0.36	5.49
3	<i>Perceived Ad Intrusiveness</i> → <i>Threat</i>	0.60	7.52
4a	<i>Threat</i> → <i>Affective Reactance</i>	0.67	7.09
4b	<i>Threat</i> → <i>Cognitive Reactance</i>	0.16	2.03
5a	<i>Affective Reactance</i> → <i>Attitude Toward The Ad</i>	-0.11	-2.11
5b	<i>Cognitive Reactance</i> → <i>Attitude Toward The Ad</i>	-0.74	-8.84
6	<i>Attitude Toward The Ad</i> → <i>Purchase Intention</i>	0.60	9.65

This study result shows that behavioral tailoring in online behavioral advertising positively effect on creepiness. This study result is consistent with previous studies by Barnard (2014). Barnard (2014) found that behavioral tailoring including ad tailoring based on demographic and / or web pages seen by consumers, will increase the creepiness of consumers. Creepiness is consumers feel that their online activities are watched, followed, observed, and tracked (Barnard, 2014). Internet users or consumers perceive a creepy online ad when the ad is overly tailored to consumer information.

Barnard (2014) has also proven that when one sees an ad with a tailoring behavioral feature, it will result experience greater perceived creepiness than an ad without the behavioral tailoring. Although the result of hypothesis H1 testing in this research is consistent with previous study, the coefficient of structural model between behavioral tailoring and creepiness in this study is bigger than the previous ($0.24 > 0.218$). This indicates that the creepiness generated due to online behavioral advertising in the form of retargeted ads implemented by the marketplace in Indonesia is greater than the online advertising used in previous study. The previous study used ads which displayed products based on products only viewed on a single website page. Meanwhile, this research object is retargeted ads which displayed some products that had been seen by consumers and the ads were likely to appear when consumers were browsing and accessing social media applications. Thus, the behavioral tailoring creates consumer feels that his browsing activity has been watched, followed, observed and tracked.

The consumer feels his control over his choice and his own behavior has been threatened. It is in accordance with the definition of threat as something that causes a lack of even loss of control or freedom (Brehm, 1966; Brehm and Brehm, 1981). When a consumer feels that his browsing is being observed, monitored and known to adapt the ads that appear, then consumers feel lost control of online behavior (Barnard, 2014). Retargeted ads implemented by e-marketplace in Indonesia use cookies to store individual setting and preference of each website. When a person returns to the website, the browser will send the corresponding cookie to the website. Thus, online behavioral advertising is likely to produce creepiness that threatens the freedom of one's browsing behavior.

In a study conducted by Barnard (2014), perceived ad intrusiveness was used as a manipulation check, not as a variable measured in the research model. However, Morimoto and Chang (2006) examined the effect of perceived ad intrusiveness on threat or perceived loss of control. Perceived ad intrusiveness is a disorder caused by advertising caused by interference to the privacy of people (Sipior and Ward, 1995; Teeter and Loving, 2001), cognitive and task performance (Li, Edwards, and Lee, 2002) and/or content media (Ha, 1996).

Based on the result on this study, perceived ad intrusiveness has positive effect to threat. This discovery is similar to the research conducted by Baek and Morimoto (2012) which explains that direct mail marketing that is considered too intervening in the privacy of a person threatens the sense of freedom of consumers online. However, unlike Morimoto and Chang (2006) research which states that perceived ad intrusiveness has no effect on threat or perceived loss of control. The studies result differences were caused by difference in research context. Morimoto and Chang (2006) uses spam email as research object. Based on the focus group discussion conducted by Morimoto and Chang (2006), research participants tend to use spam filtering on emails so that emails that include spam will go to different folders in the email. Thus, the participants can still have the freedom to control their privacy. So the result of this study is perceived ad intrusiveness differs from one another. In this study, the variable perceived ad intrusiveness has a variable mean of 4.613. It indicates that online behavioral advertising causes perceived ad intrusiveness on consumers. In practices, with cookies, it allows online behavioral advertising to appear on the page where consumers was browsing and using social media. It can be considered to interfere with the cognitive processes that are being performed on a website page such as reading an online article. In addition, because online behavioral advertising displays

products that have been seen before, consumers assume that consumers lose control over privacy (Barnard, 2014).

This study supports the psychology reactance theory that explains that when persuasion appeals threaten an individual's freedom, the person is motivated to resist or reject the message and feel more negative about the source of the message (Brehm and Brehm, 1981). According to Dillard and Shen (2005), reactance has two components: cognitive reactance and affective reactance. Affective reactance describes one's feelings as a reaction to a threat that includes feelings of annoyance, anger, disruption and aggravated (Dillard et al., 1996; Dillard and Peck, 2000;; Dillard and Shen, 2005; Barnard, 2014). While cognitive reactance describes any reaction that is in mind when there is a persuasive appeal that threatens freedom (Dillard and Shen, 2005). The research conducted by Dillard and Shen (2005) in health communication context, while this study discusses online behavioral advertising implemented by the marketplace in Indonesia. Although in different contexts, both studies support psychology reactancy theory in which the threat positively affects reactance and cognitive reactance.

Affective and cognitive reactions will shape attitudes toward ads that express likes or dislikes over time (Schiffman and Kanuk, 1997). In contrast to consumer reactions, the concept of reactance should include a threat as an antecedent of reactance, wherein reactance affects consumer attitudes (Brehm, 1966; Brehm and Brehm, 1981). This study results are supported by previous study conducted by Alreck and Settle (2007) and Barnard (2014). Barnard (2014) explains that behavioral tailoring in online behavioral advertising results in greater affective and cognitive reactance, leading to a more negative attitude toward the ad. In addition, Alreck and Settle (2007) explain that consumers show a negative attitude towards tailored advertising. Keller and Kotler (2016) explain that the evaluation of a person's assessment of an object can produce an attitude that determines whether the object is favored or disliked, so that the person will approach or move away from the assessed object. So it can be concluded that online behavioral advertising produces affective and cognitive reactance consumers that result in dislike toward the ad. In practice, negative consumer attitudes toward online behavioral advertising are due to consumer and advertising privacy concerns.

Fishbein and Ajzen (1980) suggest that purchase intention is considered to be antecedent to consumers' actual purchasing behavior, and is also regarded as a link between attitude and behaviour. Belch et al. (2014) also explained that the formation of purchasing intentions is influenced by several factors: motivation, perception and attitude. When attitudes toward advertising are formed, they can affect attitudes toward brands and purchase intentions (Barnard, 2014). In addition, consumers tend to have a stronger intentions to buy product when consumers have positive reactions to product advertisings (MacKenzie and Lutz, 1989; Haley and Baldinger, 2000). In contrast to the results of these studies, the results of this study indicate that online behavioral advertising implemented in e-marketplace in Indonesia actually resulted in negative purchase intentions in the consumer due to the attitude towards negative advertising. In practice, these ads tend to often appear on other web pages and / or social media applications after a person accesses a marketplace website which will reduce the purchase intentions of the product displayed on the ad.

Conclusion

The results of this study provide benefits in academic implication that behavioral tailoring has been shown that has negative significant impact on purchase intention. This finding adds empirical evidence in the context of online behavioral advertising implemented by e-marketplace in Indonesia that contrary previous research by (Barnard, 2014). Perceived ad intrusiveness has been shown that have a positive significant effect on the threat. This finding adds empirical evidence in the context of online behavioral advertising that is different from the results of study conducted by Morimoto and Chang (2006) in the context of direct email and spam. Threat proved to have a significant positive effect on affective and cognitive reactance. This finding add to empirical evidence in the context of online behavioral advertising implemented by the marketplace in Indonesia. Whereas, previous research conducted by Dillard and Shen (2005) in health communication context. Reactance has been proved has negative significant effect on attitude toward the ad. This finding adds empirical evidence related to consumer attitudes toward online behavioral advertising that confirm previous research conducted by Barnard (2014) and Alreck & Settle (2007). Psychology reactance theory proposed by Brehm (1966) and Brehm & Brehm (1981) had been proved has a formation role of attitude toward OBA and purchase intention.

E-marketplace should pay attention to the psychological effects on consumers due to online behavioral advertising. E-marketplace needs to consider the negative impact of behavioral tailoring of online behavioral advertising on purchase intention. Negative purchase intention are caused by advertising used by the company, not caused by competitor competition. Moreover, the process of purchasing intention into actual purchase is influenced by many factors both from consumers and companies.

This study contributes to e-commerce categorized as e-marketplace in Indonesia because this study examines the influence of online behavioral advertising (OBA) which is becoming a trend in digital advertising on consumer purchase intention. In general, e-marketplace companies use third-party (targeted ad network or vendor retargeting) to manage online behavioral advertising. Technically, each of the retargeting ad vendors has different java script algorithms that generate uniqueness and different ad technologies. It should be considered by the marketplace in Indonesia in choosing an ad network.

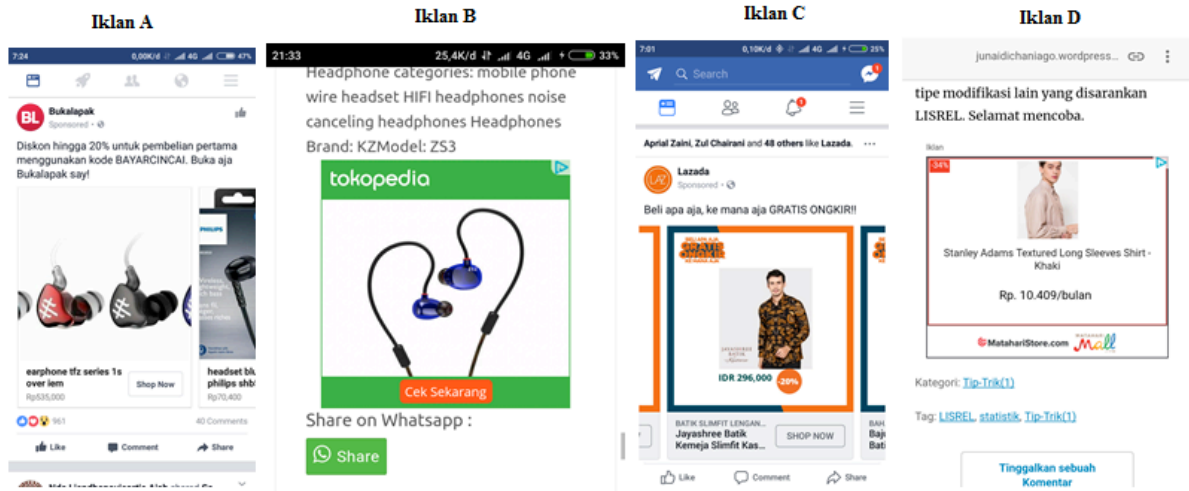
The study has several limitations. First, this study only use marketplace in Indonesia in general as research object. If using a particular marketplace, maybe the results will be different. Second, this study only uses respondents who already aware of online behavioral advertising and have accessed the marketplace website. Last, this study only uses attitude towards the ad as the main variables that affect purchase intentions. While the intent of buying online is influenced by several factors such as examples of trust in the website, product involvement, and attitude toward the website. Future study can use experimental research methods with the same context of online behavioral advertising implemented by an e-commerce company. Additionally, further research can use respondents who have not been aware of online behavioral advertising which examine the attitude toward the website as a mediator variable between attitude toward the ad and purchase intention. The study can be extended to analysis an motivation influence to purchase (product involvement and trust toward website) to purchase intention and repurchase intention in online behavioral advertising context.

References

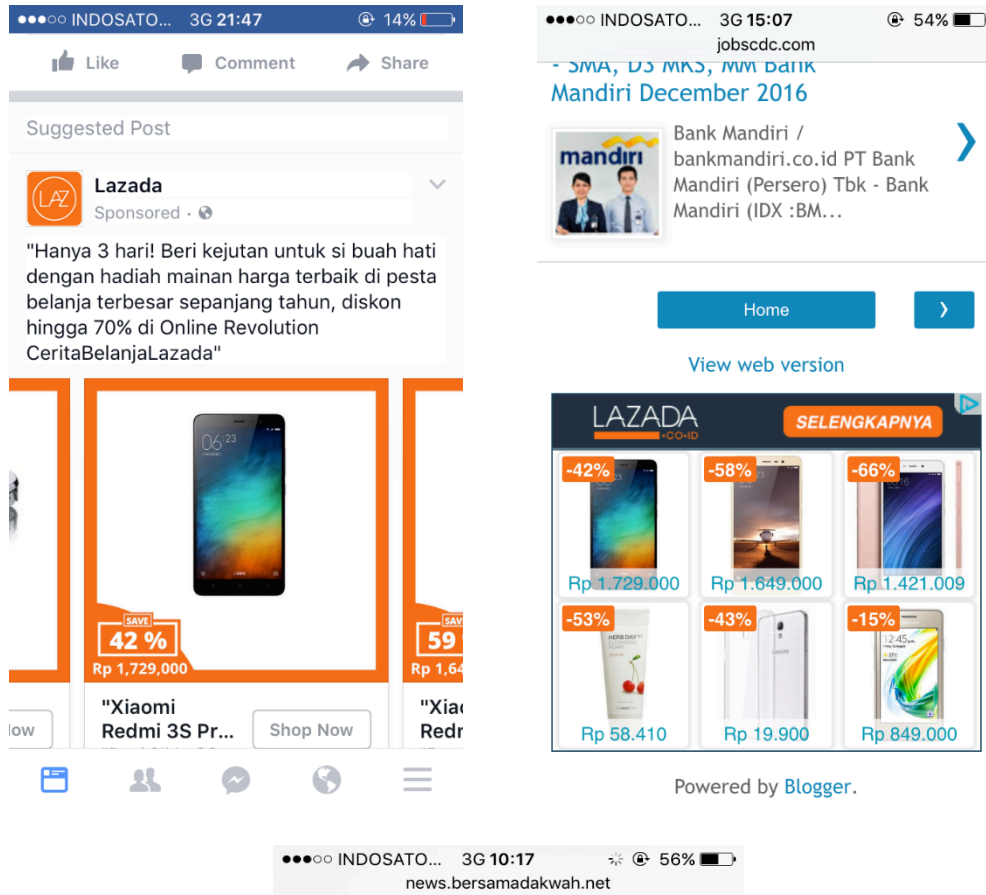
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Appendix 1. Example of Online Behavioral Advertising on Website and Facebook Apps



Appendix 2. Online Behavioral Advertising after Viewing Smartphone Xiaomi Redmi 3s in Lazada.co.id



Lutfi merupakan petugas keamanan di rumah Dodi Triono, pemilik rumah yang ditemukan tewas bersama 5 orang lainnya tersebut. Ia melihat ada darah di dada sebelah kanan Dodi. Sementara yang lainnya tampak ada luka kulit terkelupas di tangan dengan wajah yang memar kebiruan.

[Paramuda/BersamaDakwah]

