Abstract
In digital environment nowadays, data about Internet usage can be used to tailor content and advertisements to users’ interests. Interactive advertising allows customers to become more involved because they initiate most of the action. Social media allows customers and prospects to communicate directly to the brand representative or about the brand with their friends. Experiences during this interaction will drive brand attitudes. Since online behavioural advertising uses a targeted approach and the advertisement of the retailer is directed to the most appropriate and interested consumer and online retailers interact with online consumers for their transactions, online behavioural advertising becomes a very important tool especially for online retailers. However, online behavioural advertising programs through social media, which target consumers based on their interests and preferences, still raises debate concerning consumer privacy interests in connection with business data collection, transfer and use. This article aims to explain the influence of online behavioural advertising (OBA) on attitude and their purchase intention. This type of research is explanatory with quantitative approach. Facebook as one of the popular social media was chosen as the research site. Population in this research are Facebook users in Indonesia who have seen impression of OBA aged above 18 years old and ever conducted online shopping in past six months. The sample used in this research was 145 people chosen with purposive sampling technique. Self-administered questionnaire via online was employed as data collection methods in this research. The result of path analysis shows that OBA significantly influences the attitude, OBA significantly influences the purchase intention, and attitude significantly influences the purchase intention. Based on the research’s result it was suggested that users’ privacy should be considered carefully especially related to the tracking and profiling for OBA purpose, the display of OBA must be improved to attract attention and reach high click-through-rate.

Keywords: Online behavioural advertising (OBA), Consumer Attitudes, social media, Indonesia.

JEL classification: M31

1. Introduction
The internet users are significantly increasing in Indonesia. The study of Association of Internet Services Providers of Indonesia (APJII) revealed that more than 50 percent of 256.2 million Indonesians, which equals to 132.7 million people, are active internet users (APJII, 2016). The increasing of internet users has been made as a beneficial business entity. This opportunity stimulates the rise of many e-commerce. E-Commerce is purchasing, selling, and marketing of goods or services through electronic system (Wong, 2010:33). The rise of e-commerce brings out the competitive atmosphere within the industry. The issue becomes a new opportunity for online advertisers. The use of online media as promotion platform has been considered beneficial, however the doers should undergo an appropriate strategy to gain an effective advertisement.
This current era, online advertisers cannot rely on consumer insight based on demography, they should be able to collaborate the information from online activity. Thus the advertisement will be suitable with the characteristic and interest of people. The practice of this kind of advertisement is called as online behavioral advertising (OBA). OBA is defined as a type of online advertisement which directly targeting the most related people with the product. Thus, it ends up with purchasing decision on an exclusive product only (Shimp, 2008:413). Based on fact, the use of OVA shows 95% of consumers who visited an e-commerce is not undergone a transaction at that time (www.adelement.com).
OBA is expected to stimulate purchasing by consumers toward the product they have seen before on particular e-commerce. Process of OBA is started with data collection from cookies of particular computers or devices that monitored the online activities on several domains (www.iabuk.net). The collected data aims to advertisement purpose still considered as an action that break the consumer privacy.

OBA is seen as a beneficial for business actors, nevertheless it needs further observation of OBA from consumer’s point of view. Measurement of behavior toward OBA is considered necessary to be done to assess the consumer’s opinion of this practice. Behavior is asserted by Schiffman and Kanuk (2007) on Suryani (2013:127) as an expression of feeling within an individual that reflects the condition of themselves, whether they are happy or not, like or not, agree or not upon particular object. The research of Sanje and Senol (2012) founds a fact that consumers who have an experience in online buying possess a positive behavior toward OBA. Nevertheless, the research of McDonald and Cranor (2010) founds different result. It shows that consumers possess a negative behavior toward OBA. It is caused by the privacy offense and undesirable of advertisement based on interest. It found no real advantages. Based on that different result, this current research aims to fill the gap of between those two results.

Behavior is an interesting issue to be observed because it has significant role to stimulate purchase intention. Behavior has strong relation to stimuli response of advertisement message. Meanwhile, purchase intention is defined as consumer’s tendency to buy particular brand or to take an action related to purchasing that has possibility to turns out into buying (Kotler dan Armstrong, 2014:173).

The research of Barnard (2014) found that OBA has direct influence toward purchasing intention. Meanwhile in the research of Barnard (2014), it found that OBA can decrease purchase intention until 5% if there are worries within consumers feeling. Those several research can depict that OBA is a controversial of online advertisement practice.

OBA makes pro and cons, nevertheless OBA is still being an online advertisement on several websites including social media “Facebook.com”. In this research, Facebook becomes site of research since Facebook is the most visited website or social media in Indonesia (www.alexa.com), Facebook contains their users’ information and shows OBA advertisements. Demographically, the users of Facebook are diverse, thus it is representative. Therefore, this research aims to investigate the influence of online behavioural advertising (OBA) on attitude and their purchase intention, especially in the most popular social media platform in Indonesia namely Facebook.

2. Literature Review
2.1. Online Behavioural Advertising
Adviser always faced with many questions related to how much budget that needs to be spent, how much return on investment that will be gained, how many advertising that will be right on target and how many advertising that fails. VanHoose (2011:197) asserts that marketer long knows that it will be more effective if they offer their product towards the consumer that tends to be interested in it, but they do not know which consumer that fulfill that criteria and with the help of OBA, the marketer are able to communicate directly to the interested consumer. McStay (2011:2) stated that OBA involves browsing activity tracing during a certain period of time with the purpose of presenting adjusted advertisement with the ones that offered by an organization to the consumer through advertiser and assumes that it is the interest of the consumer. According to Anahdzi et al’ research (2014), the OBA indicators are privacy concerns, targeted visible advertising, and advertising characteristic.

2.2. Attitude
The consumer attitude is an important psychological factor and needs to be understood because it has positive correlation on behavior. Hawkins (1989) in Ferrinadewi (2008:94) defines attitude as
a long term organization process of motivation, emotion, perception, and cognitive and related to environmental aspects around it. Attitude has three main components which are cognitive, affective, and conative (Schiffman and Kanuk, 2008:225). The cognitive component consists of several indicators which are attention, awareness, recognition, comprehension, and recall (Kriyantono, 2009:357). Affective component is related to consumer’ feelings and emotion toward an attitude object (Suryani, 2013:122). Conative component is related to predisposition or individual tendency to do an action related to the attitude object (Suryani, 2013:122).

2.3. Purchase Intention
Interest is portrayed as a condition of one’s willingness to take action, which can be the basis for predicting that behavior or action. The purchase interest by Kotler and Armstrong (2014:173) is that consumers feel that they have a tendency to make purchases against a brand or take action related to a purchase and are measured at the level of likelihood of consumers making a purchase (Kotler and Armstrong, 2014:173). Indicators of purchase intention consist of: interested in finding information about the product, considering buying, interested in trying, wanting to know the product, wanting to have the product (Schiffman and Kanuk, 2000:470).

2.4. The relationship among OBA, Attitude, and Purchase Intention
OBA is an online advertising way that is currently rated as an effective advertising method because it directly targets consumers that interested in the products they offer. The applied OBA by the advertiser will affect a consumer’s attitude to the advertisement’ communicated message. Attitudes are usually preceded by the responses made to the used ads which promote the product. Research conducted by Sanje and Senol (2012) showed that OBA has a significant effect on consumer attitudes. Therefore, in this research, a hypothesis could be formulated as follow:

H₁ : OBA has a significant Effect on Attitude
Purchase intention is basically an affirmation or a reflection of the consumer’s mental statement of future purchases. At first consumers who visit the e-commerce site and see a product or just leave the chart empty actually has arisen interest in buying the product. Through the help of OBA, previously viewed products by consumers will be displayed again either in the form of the product itself or similar products. Barnard (2014) has conducted research to look for the impact of OBA on purchase intention. Therefore, in this research, a hypothesis could be formulated as follow:

H₂ : OBA has Significant Effect on purchase intention
Consumer attitudes vary in response to a given stimulus based on a person’s learning process. Attitudes affect a person’s purchase intention because attitudes are psychological factors that organize motivation, emotions, and perceptions. Aqsa and Kartini (2015) in his research found that attitudes significantly influence the purchase intention of a person on an offered product. The results are also confirmed Brahim’ study (2016) who found that attitudes significantly influence purchase intention. Therefore, in this research, a hypothesis could be formulated as follow:

H₃ : Attitude has Significant Effect on purchase intention

![Figure 1. Research Model and Hypothesis](image-url)
3. Research Methodology
Facebook was chosen to be the location in this research. This research is an explanatory through quantitative approach. Primary data is the source of this research with an online questionnaire selected to be a method of data collection. Participants were asked to rate, on the scale 1- "strongly disagree" to 5- "strongly agree" a series of questions about their perception on three research variables including OBA (exogenous variable), attitude (intervening variable) and purchase intention (endogenous variable). Respondents in this study are users of social networking site Facebook.com who has been seeing the look of OBA, aged 18 years and over, and had been doing online shopping in the last 6 months. A total of 145 respondents were the samples in this study by using purposive sampling technique. All indicators and research items have been tested and declared valid and reliable. Data analysis in this research is descriptive analysis and path analysis.

4. Results and Discussion
The result of the research on 145 respondents showed that the number of female respondents was 85 people (58.62%) and the male gender was 60 people (41.37%). Respondents aged 18-21 is dominating with 84 people (57.93%) with recent high school education and current professions as students with income or allowance of more than Rp. 2,000,000 - Rp. 3,000,000. It is known that the intensity of respondents doing online shopping in the last six months is more or equal to five times. Respondents perform online activities for 2-3 hours a day and do shopping online with the reason to ease of transaction. Table 1 shows the result of path analysis on this research.

<table>
<thead>
<tr>
<th>Exogenous Variable</th>
<th>Endogenous Variable</th>
<th>β</th>
<th>t-value</th>
<th>Probability</th>
<th>Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBA</td>
<td>Attitude</td>
<td>0.720</td>
<td>12.400</td>
<td>0.000</td>
<td>Sig.</td>
</tr>
<tr>
<td>OBA</td>
<td>Purchase intention</td>
<td>0.347</td>
<td>3.868</td>
<td>0.000</td>
<td>Sig.</td>
</tr>
<tr>
<td>Attitude</td>
<td>Purchase intention</td>
<td>0.376</td>
<td>4.194</td>
<td>0.000</td>
<td>Sig.</td>
</tr>
</tbody>
</table>

*Table 1. The Result of Path Analysis*

The effect of OBA on attitudes is shown by the beta coefficient of 0.720; t-value 12.400 with probability 0.000 (p < 0.05), hypothesis which states OBA has significant effect on attitude is accepted. The effect of OBA on purchase intention is shown by beta coefficient 0.347; t-value 3.868 with probability 0.000 (p < 0.05), hypothesis which states that OBA gives significant effect on purchase intention is accepted. The effect of OBA on attitude is shown by beta coefficient 0.376; t-value 4.194 with probability 0.000 (p < 0.05), hypothesis which asserts that attitude has significant effect on purchase intention is accepted.

![Figure 2. The Diagram of Path Analysis Result on OBA, Attitude, and Purchase intention](image-url)
Based on the result of path analysis it is known that direct influence between variable has bigger effect than indirect influence. OBA direct influence on purchase intention has value 34.7%, while indirect influence has value 27%. This means that the presence of OBA on Facebook is able to arouse the purchase intention of Facebook users because OBA displays products that had previously been seen. OBA performs tracking aimed at sending ads that match personal relevance. The influence of OBA on purchase intention has decreased when mediated by attitudes because in this study respondents tend to be less fond of the existence of OBA on Facebook. It is based on the fact that respondents in this study tend to pay attention to the privacy aspect compared to the other two aspects of OBA, which are advertising characteristic and targeted visible ads. Someone who concerns of the privacy aspect will have high expectations for the security of a site, but when OBA is displayed they feel that their privacy security is disrupted and attitudes may change towards disliking the OBA. It can also be triggered with a less attractive OBA display.

Model Determination
\[ R^2 \text{ model} = 1 - (1 - R^2_1) (1 - R^2_2) \]
\[ = 1 - (1 - 0.518) (1 - 0.450) \]
\[ = 1 - (0.482)(0.550) \]
\[ = 1 - 0.2651 \]
\[ = 0.7349 \text{ or } 73.49\% \]

The result of calculation of model determination obtained 73.49%. This shows that the contribution of research model that is useful to explain the structural relationship of the three variables is 73.49% and other variable excluded from research model is 26.51%.

Based on research data of path analysis, it’s known that OBA has significant effect on attitude with coefficient value 0.720 and probability 0.000 (p <0.05). OBA contribution to attitudes obtains coefficient of determination to 51.8% with other variables outside the research model 48.2%. The results of this study are in line with Sanje and Senol (2012) because there are some similarities in terms of samples. OBA has three indicators in which privacy concern contributes the greatest value. It shows that respondents tend to pay attention to privacy issues rather than others. There is self-confidence item on the privacy indicator which contributes the greatest value. Wohn et al. (2015) found that self-confidence can affect a person's attitude regarding privacy, high confidence will trigger high expectations for the security of a site.

In this study respondents perceive negative feelings towards OBA because they still find ads that are so much appropriate and Facebook is considered not able to maintain the security of its users. This unfavourable attitude can be seen from the low value of affective and conative aspects. Respondents are only limited to know that OBA is only broadcasting the cognitive aspect. The low value of affective and conative aspects can affect the acquisition of OBA indirect relationship toward purchase intention in attitude mediation which is only 0.270.

Based on research data of path analysis it’s known that OBA has a significant effect on attitude with path coefficient value 0.347 and probability 0.000 (p <0.05). OBA contribution to attitudes obtained coefficient of determination 45.0% with other variables beyond the research model 55.0%.

The results of this study are in line with Barnard’s (2014) that the OBA has a significant influence in generating purchase intention. OBA has a greater direct influence on purchase intention because according to Lang (2006) in Barnard (2014) says that the process of delivering message will be more effective when it comes to personal relevance. It is known that OBA is an ad that has a personal relevance due to the tracking and profiling process. This is also reinforced by the assumption that the advertised product is a product that was previously seen which means that there has been intention emerged in it.
The result of research data which is obtained through path analysis shows that OBA has significance to attitude with path value 0.376 and probability 0.000 (p < 0.05). OBA's contribution to attitudes obtains the result of determination 45.0% with other variables outside the research model 55.0%.

The results of this study support the research of Aqsa and Kartini (2015) which found that a positive attitude will encourage consumers to see, find information about the products that consumers will eventually be interested or have an intention to buy the product. Attitudes in this case can emerge purchase intention because attitude constitute senses and views on the assessment of an ad, if the ads can build awareness well, then consumers can also have a good assessment and trigger an action and intention to make a purchase. In this study, cognitive indicator have a high value, it indicates that respondents are aware if OBA is displayed on Facebook.

Through the awareness shown by the cognitive indicator value, then it can affect to the growth of purchase intention. Barnard (2014) found that with more relevant advertising messages, consumers will become more aware because they perceive it as if it portrays themselves, therefore purchase intention will grow by itself. However, respondents in this study did not do a click on the OBA displayed. It happens because of several causes, one of which is the location of OBA placement on Facebook. Surveys conducted by Nanigans (2016) who found that CTR of Facebook ads in Southeast Asia including Indonesia is only reach the number till 1.5% (www.facebookmarketingpartners.com). Therefore, it can be concluded that beside an ad displayed, the condition and location of research also have a contribution towards the establishment of attitude. Thus, it can be concluded that there is a significant influence between OBA toward attitude, is a significant influence between OBA toward purchase intention as well as a significant influence between attitudes toward purchase intention. Direct influence in this study has found to be has a larger value compared to indirect influence. It means that OBA is an important variable for consumer in this research that affects for both their attitude and purchase intention.

4. Conclusion and Recommendation

The success of an advertisement depends on how close the advertiser understand the needs, desires and interests of the consumer. Today, the virtual world gives the opportunity to get a closer look at the consumer by analyzing their online behavior. Since online behavioral advertising uses a targeted approach and the advertisement of the retailer is directed to the most appropriate and interested consumer, online behavioral advertising becomes a very important tool especially for online retailers and online shopping environment in general. Through targeted advertising, the message will send to the selected audience that will find the offer most relevant and so all parties, retailers and consumers, will benefit from this targeted advertising approach. By means of internet, online retailers can reach to a targeted audience by analyzing their behavior and learning their interest based on their past activities. Consumers will receive information and offers about products and services they are interested in and retailers will spend their efforts to a relevant customer base. Lessons learned by advertisers about OBA are needed because it is still very limited and this is so as to avoid a sense of injustice felt by consumers related to the practice. It was suggested that users’ privacy should be considered carefully especially related to the tracking and profiling for OBA purpose. Regarding to the findings of the study, one could suggest for Facebook users practically, that there is an option to enable or not to activate Cookies on Facebook, it is useful to keep the convenience of Facebook users and consumer rights regarding privacy issues that inherent to the practice of OBA. On the other hand, OBA in the form of pop-ups is likely annoying to the respondents in this study, therefore advertisers should avoid the use of pop-ups. It is conducted to obtain a higher click-through-rate (CTR).

For further research, it is suggested the additional number of sample and different sample characteristic should be considered, since in this study is still dominated by the college students sample and the distribution of questionnaire is only concentrated in certain cities in Indonesia. Also
other variables and social media platform should be considered for further research to see the impact of OBA.

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