The impact of media selection on advertising effectiveness an empirical study from the consumer behavior perspective

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ABSTRACT
Advertising has been around for more than a century. The development of technology has brought many media for advertising. This gives advertisers more options to choose the best medium for advertising. However, this also brings problems to advertisers, namely to choose the best media for advertising. This study was conducted to determine the impact of media selection on advertising effectiveness, an empirical study from the perspective of consumer behavior. The type of research in this research is descriptive research: single–cross sectional design, quantitative research. This research was conducted in Greater Jakarta with 155 respondents. Data were analyzed using SPSS and PLS. This research study shows that media selection has a positive significant impact on advertising effectiveness. It shows that media selection is an important part of reaching advertising effectiveness.

INTRODUCTION
Advertising is by far the most widely used marketing tool, the core of which consists of a pragmatic valuable social information associated with the advertising image and is focused on the direct compelling or fascinating hidden, but a pragmatic directional communication with the audience. Advertising is any form of information and the promotion of a set of ideas that helps to inform customers about new products and helps to reduce barriers between customers and organizations (Rahnama & Beiki, 2013). Advertising has been around for the sometime in this world. In the US, advertising communication date back to 17th century (Mendelová, 2018).

The changes and growing of advertising are also impacted by the development of new technologies. Advertising has always found it ways to ride on the development of new technologies. In the time of newspaper, advertising was fundamental to the development of the modern newspaper and objective reporting (van der Laan, 2016). Advertising media are categorized as TV, Newspaper, Magazine and Internet (Sama, 2019). Nielsen categorize the advertising media as TV, Digital, Radio, Print, Outdoor, Cinema and B2B (Nielsen, 2021). The latest technology in advertising is where technology has developed into the world of internet. These new technologies has transformed the global media environment from one organized around passive media consumption to a far more complex environment – mobile, multitasking, on-demand – where consumers have more control over where, when and how they interact with media. (Gluck & Sales, 2008). These facts show that advertising has evolved over period of time and still evolving. New advertising mediums are emerging, and new techniques are coming at rapid pace (Siddiqui & Siddiqui, 2016).

One of the main factors that is continuously changing in advertising and related to the technology development is the media. The development of new technology has presented advertising with new options to choose from. Media is an important factor of advertising. The selection of media can impact on how the consumer reacts to the advertising. A research on magazine comparison and how it affects the readers show that the way a person experiences a magazine can affect the way the person reacts to advertising in the magazine (Malthouse et al., 2007). This is supported by a research that shows advertising media selection has the strongest relationship with brand advertising success and effectiveness and can be the most important factor affecting advertising effectiveness (Ansari & Riasi, 2016). That is the reason on why an advertiser should pay attention on the media selection in order the gain the full benefit of the advertising. Although there is a contrary finding on how the overall correlation between media context and advertising memory was weak. The impact of media context on advertising memory varied by media-context factors and

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advertising-memory measures as well as by study characteristics (Kwon et al., 2019). Kwon argues that media context on advertising is weakly correlated with advertising memory. Yet there is a fact that is media has relied on advertising for ages. Gustafsson stated that It is obvious that without advertising there would not have been any mass media. The media would have been reserved for the elites. It is the interaction between advertising and media that creates mass media (Gustafsson, 2006).

The importance of media selection is important to be investigated as it is one of the most important factors in advertising. Advertisers such as retail companies, education institutions, e-commerce companies and others, needs to know on what the best media selection is to deliver their advertising. Advertising effectiveness is about how the advertising can fulfil the target of the advertising. There are many targets of advertising, as a form of marketing tools advertising may be used to fulfil marketing target. Advertising part of promotion, one of the 4Ps marketing mix. The promotion of the marketing mix is a tool that helps disseminate information, encourage the purchase and has an impact on the decision to buy. Supporter complex includes 5 elements, namely: advertising, sales promotion, personal selling, public relations and direct marketing (Išoraitė, 2016). A hierarchy model of marketing is Attention, Interest, Desire and Action (Lewis, 1908). Advertising is used to induce or persuade consumer in those stages. The other model is Secure Attention, Hold Attention through Interest, Arouse Desire, Create Confident and Belief, Secure Decision and Action and Create Satisfaction (Kitson, 1920). Another model is introduced by Sama in 2019 where the impact of advertisement on consumer behavior towards the product can be measured by Awareness (AWR), Interest (INT), Conviction (CON), Purchase (PUR) and Post Purchase (PPUR) (Sama, 2019). While in other research advertising effectiveness is measured by the consumer behavior towards the advertising, Ad Attitude (AAT), Intrusiveness (INTRU), and Loyalty (LOY) (Belanche et al., 2019).

Advertisers need to understand about their advertising objectives on how they would like to influence the consumer behavior. An advertiser with the objective of influencing consumer for their brand awareness will have different approach than an advertiser with objectives of influencing consumer to purchase their products. These approaches will be further combined with the targeted audiences based on age, gender, education level and income level. Thus it is important for advertiser to be able to set their advertising target and choose the right strategy in delivering their advertising.

The importance of selecting the right media for advertising is undeniable. With technology advancement, there are many options available for advertising placement. The advertising industry has changed, and as a result, advertisers need to adapt with the changing media environment and the habits of consumers. A business needs to understand on which media is the best for their advertisement. By choosing the correct media, it will boost the benefit from the advertising campaign. A business needs to be aware about the available media and what is the best media that is suitable for their targeted audience. The importance of media selection is important especially in places that offers variety of advertising media. Indonesia is one of the countries that offers many types of advertising media. In Indonesia, all type of advertising media is available for companies to choose. From conventional media such as newspaper and billboards to the technology adaption media such as online platform and programmatic advertising. To look at Indonesia’s trend, it is represented by its capital city and surrounding area Jakarta, Bogor, Depok, Tangerang, Bekasi (Jabodetabek). This area is considered as the benchmark for the whole Indonesian population. The trends that is happening in Jabodetabek will be soon be adapted in other area. Jabodetabek also has a very high population of 29 million people or 11% of total Indonesian population (BPS, 2020). This made the area to become the go to for advertisers as they are looking for maximum exposure for their advertising. Jabodetabek has become the target market for many companies to put their advertising. With many media selection, it has become clear that Jabodetabek offers many options for companies to advertise. Now it depends on companies how they can get maximum results from their advertising by choosing the best media for their advertising.

There are many research investigating about media selection and about advertising effectiveness. Currently there is no research-based data in Jabodetabek Indonesia which shows on which media is most effective to be used for advertising to reach a certain goal. A study is required to find out the impact of advertising media on advertising effectiveness with consideration of contemporary available technology advancement.

**RESEARCH METHODS**

The type of study for this research is descriptive research: single – cross sectional design, quantitative research. A descriptive study is undertaken in order to ascertain and be able to describe the
characteristics of the variables of interest in a situation (Sekaran, 2003). The unit of analysis refers to the level of aggregation of the data collected during the subsequent data analysis stage (Sekaran, 2003). The unit analysis in this research is focused to the individual of a productive age who has been exposed to advertising media. People who are living in Jabodetabek area with age range of 15-64 years old who has experience advertising exposure from the media.

The population of this research is people living in Jabodetabek aged 15-64. The total population of Jabodetabek is 30 million while people of the productive age is around 70% (BPS, 2021). Therefore, the population of this research is 21 million people. The sample of this research is 155 people.

RESULTS AND DISCUSSION

Result recapitulation on the research

| Table 1 Recapitulation of Respondents' Responses to Media Selection |
|---|---|---|---|
| Dimension | Total Score | Average | Category |
| SOCIAL MEDIA | 6858 | 3.7 | Good |
| SEARCH ENGINE/WEBSITE | 6913 | 3.7 | Good |
| TV | 6858 | 3.7 | Good |
| RADIO | 4927 | 2.6 | Average |
| BILLBOARDS | 4958 | 2.7 | Average |
| TRANSPORT | 4837 | 2.6 | Average |
| Total | 35351 | 3.2 | Average |

From the results of the calculation of respondents’ response scores presented in the table above, it can be known that the respondent’s assessment of social media selection is included in the Category Average with score of 3.2. Recapitulation of Respondents’ Responses to Media Selection by Gender shows that Male and female both have top three average on website, social media and TV.

Recapitulation of Respondents’ Responses to Media Selection by Age shows that Generation Z or 15-23 years old has higher average on social media, website and TV respectively. Generation Y or 24-39 years old has higher average on website, social media and TV respectively. Generation X or 40-55 years old has higher average on website, social media and TV respectively. Generation Baby Boomers or 56-64 years old has higher average on social media, website and TV respectively.

Recapitulation of Respondents’ Responses to Media Selection by income shows that People with income of less than 4 millions rupiah has higher average on website, social media and TV respectively. People with income of 4-7 millions rupiah has higher average on website, social media and TV respectively. People with income of 7-15 millions rupiah has higher average on social media, website and TV respectively. People with income of 15-30 millions rupiah has higher average on website, social media and TV respectively. People with income of more than 30 millions rupiah has higher average on website, social media and TV respectively.

Recapitulation of Respondents’ Responses to Ad Effectiveness shows that the respondent’s assessment of the effectiveness of ads entered in the Category is good with an average score of 3.5.
Recapitulation of Respondents' Responses to Advertising Effectiveness by Gender shows that Male have top three average on Awareness, Conviction and Interest respectively. While Female has top three average on Interest, Awareness and Conviction respectively.

Recapitulation of Respondents' Responses to Advertising Effectiveness by Age shows that Generation Z or 15-23 years old has higher average on Conviction, Awareness and Interest respectively. Generation Y or 24-39 years old has higher average on Awareness, Interest, and Conviction respectively. Generation X or 40-55 years old has higher average on Awareness, Interest and Conviction respectively. Generation Baby Boomers or 56-64 years old has higher average on Ad Attitude, Intrusiveness and Conviction respectively.

Recapitulation of Respondents' Responses to Advertising Effectiveness by income shows that People with income of less than 4 millions rupiah has higher average on Conviction, Interest and Awareness respectively. People with income of 4-7 millions rupiah has higher average on Awareness, Interest, Conviction respectively. People with income of 7-15 millions rupiah has higher average on Awareness, Interest and Conviction respectively. People with income of 15-30 millions rupiah has higher average on Awareness, Interest, and Conviction respectively. People with income of more than 30 millions rupiah has higher average on Awareness, Conviction and Interest respectively.

Recapitulation of Respondents' Responses to Advertising Effectiveness by Indicators shows that Awareness has highest average on gender male, age group of 24-39 years old or generation Y and income group of 4-7 millions. Interest has highest average on gender female, age group of 24-39 years old or generation Y and income group of 4-7 millions. Conviction has highest average on gender male, age group of 15-23 years old or generation Z and income group of 4-7 millions. Purchase has highest average on gender male, age group of 15-23 years old or generation Z and income group of 4-7 millions. Post Purchase has highest average on gender male, age group of 15-23 years old or generation Z and income group of 4-7 millions. Intrusiveness has highest average on gender female, age group of 24-39 years old or generation Y and income group of 4-7 millions.

**Partial Least Square Structural Model Testing Results**

The study aims to examine the impact of media selection on the effectiveness of advertising and empirical studies from a consumer behavior perspective. In this study there are two models of testing conducted by Smart PLS, namely the measurement model or commonly referred to as the outer model (outer 80.3% % 95 models) and structural models or commonly referred to as inner models (inner models). The first starts with the outer model measurement which is used to determine validity and reliability that connect reflective indicators with latent variables tested using three measurement methods. After conducting a confirmation factor analysis and all indicators are declared valid and reliable. Then next is to test the structural model (inner model) as a whole. This structural (inner model) model is done by evaluating the percentage of variance (R2) for endogenous latent variables modeled by exogenous latent variables and also testing is done with the t obtained from bootstrapping to see if the effect is significant or not (Indrawati et al., 2017:72).

Based on the partial least square estimation method obtained a diagram of the Full Path Structural Model as seen in the following figure
Through figure 1 it can be known that the yellow box shows each indicator and the blue circle shows the latent variable. And there are numbers on each arrow that show the validity value of each indicator and test the reliability of the variable construct studied. The indicator is said to be valid if it has a factor weight greater than 0.50.

**Structural Model Testing (Inner Model)**

The distribution of this structural model is to test the influence of one latent variable with another latent variable. The test is done by looking at the path value to see whether the influence is significant or not judging from the value of the path value (the value can be obtained by bootstrapping). Here is an image of the bootstrapping results revealed in this study:

**Test R square**

The influence of the dependent variable can be displayed by the R-square value. Below is the R-square score.

<table>
<thead>
<tr>
<th>Variable</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising Effectiveness</td>
<td>0.438</td>
</tr>
</tbody>
</table>

Source: Author
Through the coefficient of determination (R-square) value contained in the Table above can be known the value of R Square of 0.438, which shows that advertising effectiveness can be explained by 43.8% by variable media selection.

Correlations between Media Selection, Advertising Effectiveness and moderating variables.

Recapitulation of Correlation Test based on media selection dimensions shows, social media has the highest top three correlation with Awareness, Conviction and Purchase respectively. Website has the highest top three correlation with Awareness, Purchase and Interest respectively. TV has the highest top three correlation with Awareness, Purchase and Interest respectively. Radio has the highest top three correlation with Awareness, Purchase and Intrusiveness respectively. Billboards has the highest top three correlation with Interest, Purchase and Conviction respectively. Transport has the highest top three correlation with Interest, Purchase and Awareness respectively.

Recapitulation of Correlation Test based on advertising effectiveness indicators shows Awareness has the highest top three correlation with Website, Billboards and Transportation respectively. Interest has the highest top three correlation with Billboards, Transport and Website respectively. Conviction has the highest top three correlation with Billboards, Social Media and Website respectively. Purchase has the highest top three correlation with Billboards, Transportation and Website respectively. Post Purchase has the highest top three correlation with Billboards, Website and Social Media respectively. Ad Attitude has the highest top three correlation with Billboards, Radio and Website respectively. Intrusiveness has the highest top three correlation with Billboards, Radio and Website respectively.

Hypothesis testing

Hypotheses in this study will be tested using path coefficients and ts to see if there are significant influences or not. In addition, the results of the path significance test also showed the value of the parameter coefficient (original sample). The parameter coefficient shows the significance value of the influence of each research variable.

<table>
<thead>
<tr>
<th>Table 3. Path Significance Test</th>
<th>Original Sample</th>
<th>t-value</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media_Selection -&gt; Advertising Effectiveness</td>
<td>0.627</td>
<td>10.845</td>
<td>0.000</td>
</tr>
<tr>
<td>AGEXMED -&gt; Advertising Effectiveness</td>
<td>-0.056</td>
<td>0.803</td>
<td>0.422</td>
</tr>
<tr>
<td>GENDERXMED -&gt; Advertising Effectiveness</td>
<td>0.117</td>
<td>1.518</td>
<td>0.130</td>
</tr>
<tr>
<td>INCOMXMED -&gt; Advertising Effectiveness</td>
<td>-0.059</td>
<td>0.640</td>
<td>0.523</td>
</tr>
</tbody>
</table>

1. **Media_Selection's Impact on Advertising Effectiveness**
   Ho: Media_Selection has no positive significant impact on advertising effectiveness
   H1: Media_Selection has a significant positive impact on advertising_Effectiveness

   Reject Ho and accept H1 if the $t_{values} > t_{table}$

   To test the above hypothesis, use the value of t-value to see the influence of Media_Selection on Advertising Effectiveness with a value of t-value 10.845, this value is greater than 1.96 with a = 0.05, so that it can be concluded that H1 is **supported**, meaning there is a significant influence Media_Selection on advertising effectiveness.

   The Media_Selection variable to Advertising Effectiveness has an original sample of 0.627 with a positive direction means that the better Media_Selection the _Effectiveness Advertising will also increase by 0.627.

2. **The impact of Media Selection on Advertising Effectiveness moderated by gender**
   Ho: Media Selection has no positive significant impact on Advertising Effectiveness when moderated by gender
   H2:Media Selection has a significant positive impact on Advertising Effectiveness when moderated by gender

   Reject Ho and accept H1 if the $t_{value} > t_{table}$

   To test the above hypothesis, use the value t-value to see the influence of Media Selection on Advertising Effectiveness gender moderation with a value of t-value 1.518, this value is smaller
than 1.96 with a = 0.05, so it can be concluded **H2 not supported**, meaning there is no significant influence of Media Selection on Advertising Effectiveness gender moderation. Media Selection variables against Advertising Effectiveness moderated Gender has an original sample of 0.117 with a positive direction means the better Media Selection then Advertising Effectiveness will also increase by 0.117 when moderated by gender

**3. The impact of Media Selection on Advertising Effectiveness moderated by age**

Ho: Media Selection has no significant positive impact on Advertising Effectiveness when moderated by age

H3: Media Selection has a significant positive impact on Advertising Effectiveness when moderated by age

Reject Ho and accept H1 if the $t_{value} > t_{table}$

To test the above hypothesis, use the value $t-value$ to see the influence of Media Selection on Advertising Effectiveness moderated Age with a value of $t-value$ 0.803, this value is smaller than 1.96 with a = 0.05, so it can be concluded **H3 not supported**, meaning there is no significant influence of Media Selection on Advertising Effectiveness moderated Age. Media Selection variable against Advertising Effectiveness moderated Age has an original sample of 0.056 with a negative direction means the better Media Selection then Advertising Effectiveness will decrease by 0.056 when moderated by Age.

**4. The Influence of Media Selection on Advertising Effectiveness moderated by income**

Ho: Media Selection has no positive significant impact on Advertising Effectiveness when moderated by income

H4: Media Selection has a significant positive impact on Advertising Effectiveness when moderated by income

Reject Ho and accept H1 if the $t_{value} > t_{table}$

To test the above hypothesis, use the value of $t-value$ to see the influence of Media Selection on Advertising Effectiveness moderated Income with a value of $t-value$ 0.640, this value is smaller than 1.96 with a = 0.05, so it can be concluded **H4 not supported**, meaning there is no significant influence of Media Selection on Advertising Effectiveness in income moderation. Media Selection variable against Advertising Effectiveness moderated Income has an original sample of 0.059 with a negative direction means the better Media Selection then Advertising Effectiveness will decrease by 0.059 when moderated by Income.

**CONCLUSION**

This research study shows that media selection has a positive significant impact on advertising effectiveness. It shows that media selection is an important part of reaching advertising effectiveness. From this research it can be concluded that Media selection has a positive significant impact on advertising effectiveness. This shows that media selection is an important part of advertising effectiveness. Every advertiser must be aware when they are preparing their advertisement strategy. Media selection does not have a positive significant impact on advertising effectiveness when moderated by gender. It means there are no significant effect of gender in the relationship of media selection and advertising effectiveness. Gender does not have significant effect as moderating variable. Media selection does not have a positive significant impact on advertising effectiveness when moderated by age. It means there are no significant effect of age in the relationship of media selection and advertising effectiveness. Age does not have significant effect as moderating variable. Media selection does not have a positive significant impact on advertising effectiveness when moderated by income level. It means there are no significant effect of income in the relationship of media selection and advertising effectiveness. Income does not have significant effect as moderating variable.

**DAFTAR PUSTAKA**


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