
**THE INFLUENCE OF AGE ON THE ATTRACTIVENESS OF ONLINE
ADVERTISING AND BRAND AWARENESS OF TOKOPEDIA**

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ABSTRACT

Keywords: Online Advertising;
Brand Awareness; E-
Commerce; Digital Marketing.

This research activity aims to analyze the influence of age on Tokopedia's brand awareness and the attractiveness of Tokopedia's online advertising to the audience. The research methodology used is a quantitative approach with survey methods. The survey acquisition data is then processed using the SPSS application. The results showed that the age variable did not significantly influence Tokopedia's brand awareness or the attractiveness of Tokopedia's online advertising to the audience. This study concludes that technological developments also have an impact on bringing progress and development in various fields. The Industrial Revolution 4.0, limited mobility due to the pandemic, and the discourse on the application of Society 5.0 have also encouraged the development of the internet and technology and its application to various aspects of life and the work sector.



Introduction

Along with the development of technology, more and more diverse uses of technology in everyday life. Various sectors in everyday life, such as education, agriculture, trade, and many more, have used the internet and technology to facilitate daily work (Torres, Augusto, & Matos, 2019).

When discussed based on age, young people, such as millennials and Gen Z, are the most flexible and can utilize the internet and technology in their daily lives. Generally, they are always the first to be exposed to a trend (or even trigger one). (Ilaisyah & Sulistyowati, 2020) It also found that Millennials use more social media, while Gen Z tends to use less social media but with a longer duration of use.

Meanwhile, although not as skilled as young people, Generation X continues using the internet and technology. We Are Social (2021) reveals that Generation X uses social networks and the internet for more specific purposes, such as shopping online. However, in the same statistics, it was also revealed that internet use by Generation X is not as intense as by Millennials or Gen Z. Unlike Millennials and Gen Z, Generation X rarely spends their time on social media or the internet, if only to spend free time.

The increasing use of the internet and technology in everyday life is more or less influenced by technological advances and the industrial revolution, which has reached stage 4.0. The Ministry of Communication and Information website notes that the Industrial Revolution 4.0, also known as the cyber-physical system, is a "phenomenon that collaborates cyber technology and automation technology" (Sembiring, 2021). This phenomenon supports more use of information technology and minimizes the interference of human resources. A distinctive characteristic of Industry 4.0 is increased competition

through smart devices, with information about high-wage locations, demographic changes, resources, energy efficiency, and urban production (Roblek, Meško, & Krapež, 2016).

The rise and expansion of Industry 4.0 are based on the assumption that there is an increase in global urbanization (Dobrowolska & Knop, 2020). Urbanization activities trigger urban renewal and development. These developments are smart and appropriate solutions. The application of today's technology, which is already sophisticated and smart, can help realize these developments.

The Industrial Revolution 4.0 helped trigger the emergence of various new, efficient business models (Deniz, 2020), and these models certainly require the application and implementation of cutting-edge information technology. Of course, technological adaptation can also have a negative impact. For example, technology adaptation can minimize the use of human resources. Some business entities may have to reduce their employees, especially employees whose positions can be easily replaced by applying appropriate information technology.

Not only that, the discourse of society 5.0 or society 5.0, which has begun to be echoed as a resolution of the concept of the industrial revolution 4.0 (Binus University Online Learning, 2021), also supports various kinds of information technology implementation. Seeing the significance of information technology today, Indonesia's discourse on becoming a developed country in 2045 can be facilitated by Indonesia's digital transformation and digital innovation to transition to society 5.0 (Putri, 2021).

The development and advancement of technology cannot be separated from the development and progress of the Internet. Now, the internet can be accessed from various devices, such as computers, laptops, tablets, and mobile phones. Now, anyone can connect to the internet from anywhere, anytime. According to Quoted from We Are Social 2022, Internet users at the beginning of 2022 reached 4.95 billion. Meanwhile, the number of internet users in Indonesia is also quite large. A study shows that in January 2022, the number of internet users in Indonesia at the beginning of 2022 reached 204.7 million (Sintani, 2016).

The pandemic, which limits human mobility and the implementation of various activities that were previously more commonly held in person or face-to-face, has also encouraged the optimization and frequency of the use of information technology in various aspects of people's lives, almost without exception. The most common example is the use of applications such as Google Meet and Zoom Meeting as a means of online meetings. A survey conducted by McKinsey & Company in 2020 showed that the COVID-19 pandemic has helped accelerate the process of adopting digital technology. A survey conducted by McKinsey & Company 2020 shows that this transition is very prevalent in Indonesia (Hundura, Silfia, & Chaudhary, 2023).

One of the phenomena that has become more prevalent after the pandemic is digital marketing. Digital marketing is not a new phenomenon, but conditions and situations have increased in popularity. To overcome the decline in sales caused by limited human mobility, many entrepreneurs and business entities, both small and large,

are turning to digital methods for sales and promotional activities. The placement of focus on digital marketing is mainly found in brands established during the pandemic.

One form of digital marketing practice is online advertising. The shift of consumers to digital means triggers industries and companies to switch to digital means to interact with consumers and attract new consumers. Online advertising practices are mainly found in newly pioneered brands or brands that target Millennials and Gen Z as their target market. Some examples of brands that intensively advertise online in various forms are makeup and skincare brands such as Something and Secondary. In addition, Tokopedia is one of Indonesia's largest e-commerce sites today.

Since 2020, Indonesians' interest in shopping online has increased. Based on the results of a survey from McKinsey & Company entitled "McKinsey & Company 2019 COVID-19 Consumer Pulse Surveys" (2020), 92% of respondents from Indonesia stated that they had tried digital means of shopping, with 77-88% of the same respondents expressing interest in continuing the use of digital means in shopping. The high interest of Indonesians in utilizing digital means of shopping may be one factor influencing the high popularity of Tokopedia in Indonesia. According to Statista, in the first quarter of 2022, Tokopedia ranked first on the e-commerce list with the largest monthly traffic, followed by Shopee and Lazada in second and third positions (Vidanagama et al., 2023).

Not wanting to lose to its competitors, Tokopedia is also active in carrying out various digital marketing practices and utilizing various types of media they have, from social media, applications, official websites, and newsletters. One proof of Tokopedia's active digital marketing is the application of online advertising. Tokopedia quite routinely issues digital-based advertisements on various media. Some examples of online advertising practiced by Tokopedia are influencer marketing in the form of endorsements or paid partnerships, content marketing by utilizing various social media channels used by Tokopedia, social media marketing by utilizing boosted posts and ads features from social media used, and pay-per-click ads on the Google search engine in the form of pop-up ads. It can be said that Tokopedia can utilize the media it has and uses very well.

Although statistics show that Tokopedia has a high level of popularity, it is not known whether the online advertising shown by Tokopedia only affects certain age groups. Given the high number of young internet users from young people, such as millennials and Gen Z, it is possible that Tokopedia's online advertising has so far only attracted the attention of users who come from the younger generation. In addition, it is also unknown whether the age of users also affects the level of Tokopedia's brand awareness.

Considering the incessant online advertising carried out by Tokopedia, and also the skyrocketing name of Tokopedia lately, this study was focused on looking for the relationship between age and brand awareness and the attractiveness of Tokopedia online advertising to its audience. These two factors are suspected to be interrelated because the younger generation, such as Millennials and Gen Z, currently use the internet intensely.

Through this study, researchers find out whether there is a correlation between user age and Tokopedia's brand awareness. In addition, researchers also want to find out

whether there is a correlation between the age of users and the level of attractiveness of online advertising issued by Tokopedia.

Data collection for this study was conducted through an online survey method distributed through Google Forms links. Survey data processing is carried out using the SPSS application.

It is hoped that this research will obtain information about the relationship between age and brand awareness and the attractiveness of online advertising to the audience.

Brand Awareness

(Hammer, Kayser, & Keller, 2003) Brand awareness is defined as the personal meaning of a brand in the customer's mind, which involves all descriptive and evaluative information related to the brand. The results of the study he conducted (Foroudi, 2019) stated that the higher the level of brand awareness, the higher the chance of customers buying products or services from the brand.

Research Methods

The study was conducted using quantitative research methods. Quantitative research methods can be defined as research methods that involve collecting and analyzing quantitative or statistical data using certain research instruments (Ramadhan & Sugiyono, 2015).

For this study, the survey method is data collection through observation in questionnaires conducted to obtain relevant data to determine the relationship between existing research variables.

Research Hypothesis

Based on the reasons and situations presented in the Introduction, as well as the theories that have been presented in the Literature Review, the hypotheses proposed are as follows:

1. Age can affect *Tokopedia's* brand awareness
2. Age can affect the attractiveness of advertisements that Tokopedia's online advertising audience feels.

Data Retrieval

In this study, researchers will analyze two things:

1. the influence of age on the attractiveness of online advertising launched by Tokopedia; and
2. the influence of age on *Tokopedia's* brand awareness.

Researchers distributed an online survey to twenty respondents to determine the abovementioned things. The online survey that was distributed was conducted using Google Forms.

In the research survey, *online advertising* in question was divided into three categories: endorsements, uploads in the form of advertisements or promotions on social media, and pay-per-click ads in the form of pop-up ads. Meanwhile, ages are divided into four categories: 18 years and under, 18-24 years, 25-29 years, and 30 years and over.

The data collection technique is carried out by answering questions using Likert scales. The Likert scale used in the survey distributed is the Likert scale with four categories of answers, namely 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, and 4 = Strongly Agree.

Sampling

In quantitative studies, sampling aims to obtain representatives of the research target population. Population can be defined as a large group of research targets, a collection of elements to be studied (Neuman, 2014).

In this study, the population studied was Tokopedia application users. The sample chosen by the researcher was 20 Tokopedia application users who were willing to fill out the survey that had been made.

The research sample selection technique used in this study is *purposive sampling*. Purposive sampling is a sample selection technique matching predetermined criteria (Neuman, 2014).

Analysis

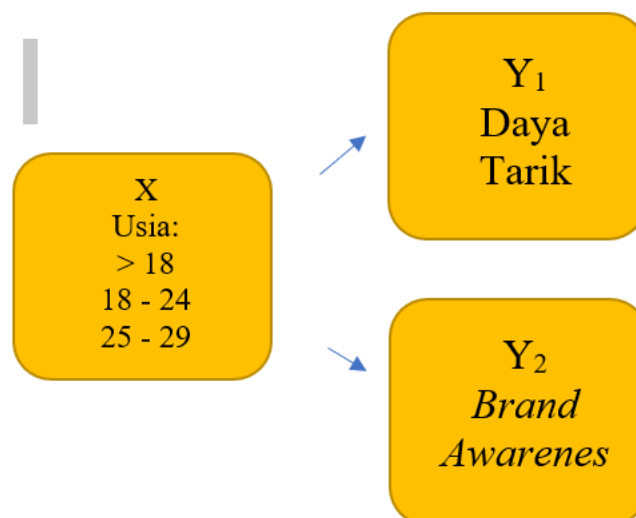
This study uses two types of variables: dependent (bound) and independent (free) variables. In this study, there were two dependent variables and one independent variable. The dependent variables that can be found in this study are the attractiveness or attractiveness of *Tokopedia's online advertising* and *Tokopedia's brand awareness*. The independent variable in this study was the age of the respondents.

The relationship between variables is then analyzed using the SPSS application. The analysis method used is a simple linear regression method. The method is fairly simple, and this study. The calculation results of a simple linear regression test can be formulated into:

$$Y = a + Bx$$

Frame of Thought

The concept of this study can be illustrated using a simple chart, as shown below.



From the chart above, it can be seen that there is one independent variable denoted by X. The independent variable is age. The survey categorized ages into four groups: less than 18 years, 18-24 years, 25-29 years, and 29 years and over.

In addition, there are also two dependent or dependent variables: ad attractiveness and brand awareness. As denoted by two arrow symbols, the independent variable will be examined for its effect on each dependent variable.

Results and Discussion

Description of Research Respondents

The survey was distributed to twenty Tokopedia application users. The table below can give an idea of the age of respondents:

Table 1
Dissemination of the Respondent's Age

Age	Sum	Percentage
< 18 years old	Three persons	15%
18 - 24 years	14 people	70%
25 - 29 years	One person	5%
> 29 years old	Two persons	10%

From Table 1, it can be seen that the age distribution of respondents is uneven. Most respondents came from Millennials and Gen Z, and only two were aged 30 years and over. The age category of participants in this survey is 18-24 years, with 14 participants or 70% of the total respondents.

The same survey also obtained related data through which channel or media respondents first heard about Tokopedia. The answer categories are divided into Artists/Influencers, Friends/Family, Ads from the internet, and Others. If the respondent's answer cannot be represented by the other three categories, then the respondent can select the Other category and fill in the answer as desired.

The table below provides an overview of the channels or media that first introduced respondents to Tokopedia:

Table 2
Channels or Media that Introduce Respondents to Tokopedia

Saluran/Media	Total	Percentage
Advertising on the internet	13 people	65%
Friends/Family	Three persons	15%
Artis/ <i>Influencing</i>	Two persons	10%
Other	Two persons	10%

From the table above, it can be seen that most respondents first know or hear about Tokopedia through advertisements they encounter on the internet. The number of

respondents who first learned about Tokopedia through advertisements on the internet was quite significant, as many as 13 people or 65% of the total number of respondents.

In addition, through the survey conducted, researchers also found out what type of online advertising was most seen by respondents. The table below provides an overview of the most common types of Tokopedia online advertising and how many respondents have seen it:

Table 3
Types of Tokopedia Online Advertising Ever Seen by Respondents

<i>Jenis online advertising</i>	Sum	Percentage
Ads on social media	17 people	85%
Pop-up ads	Nine persons	45%
Tokopedia's social media content	Nine persons	45%

From Table 3, it can be concluded that most respondents have seen Tokopedia advertisements that appear on social media. Seventeen respondents, or 85% of the total respondents, claimed to have seen Tokopedia advertisements that appeared on social media. However, other types of ads are also quite common, with as many as nine respondents who have seen each type of ad, or 45% of the total respondents.

Normality Test

To test the normality of data distribution, researchers also conducted the Shapiro-Wilk normality test using the SPSS application. The table below shows the results of the researchers' Shapiro-Wilk normality test on the data obtained.

Table 4
Shapiro-Wilk Normality Test Results

	Statistic	df	sig	statistic	df	sig
Brand Awareness	151	20	200	954	20	437
Daya Tarik Iklan	173	20	120	937	20	206

Researchers used the Shapiro-Wilk normality test because the number of samples was below 50. Based on the normality test results, a coefficient value of 0.437 or greater than 0.05 was obtained. These results show that the distribution of data obtained is normal.

Simple linear regression test against variable X (age) with variable Y1 (ad attractiveness)

To determine the relationship between dependent and independent variables in this study, researchers tested the data obtained from the survey. The test performed is a simple linear regression test.

The output is a table of simple linear regression test results against the Ad Attractiveness variable below. There are four tables, each of which offers a different explanation. Each table provides an explanation corresponding to the label above it.

Table 5
Results of Simple Linear Regression Testing Against Variable X with Variables Y₁

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	Usia ^b		Enter

- a. Dependent Variable: Ad appeal
- b. All request variables entered.

Model Summary				
Model	R	Variables Entered	Variables Removed	Method
1	.122 ^a	015	040	37640

- a. Predictors: (constant), Age

ANOVA ^a					
Model	Son of squares	df	Mean square	f	sig
Regression	.039	1	.039	273	.607 ^b
Residual	2.550	18	.142		
Total	2.589	19			

- a. Dependent Variable: Ad appeal
- 1. Predictors (constant), age

Coefficients					
Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	sig
Constant	2.952	.245		12.047	<.001
Usia	.057	.110		.523	.607

Table 5 consists of four section tables, each explaining different matters. The label above each table shows what the table describes. The top table entitled Variables Entered/Removed shows that the processed variable is variable X (Age) with variable Y₁ (Ad attractiveness).

In the Model Summary table, the value of R is displayed, symbolizing the value of the correlation coefficient. It can be seen in the table above that the value of the correlation coefficient obtained is 0.123, which means that the relationship between

Variable X and Variable Y1 is categorized as a weak relationship. Next to the R-value is a column of R square values, which indicates the Coefficient of Determination (KD). From the table above, it can be seen that the Coefficient of Determination only reaches 0.015. From these details, it can be concluded that the influence of variable X on variable Y1 is only 1.5%. It can also be said that factors outside the X variable influence the other 98.5%.

The ANOVA Table shows the regression test's significance level (linearity). You can check the Sig—value in ANOVA to find out the value. A regression model can be said to be a linear model when the Sig. Value is less than 0.05. In the ANOVA Table, the value of Sig. is 0.607, which is a nominal greater than 0.05. Therefore, it can be concluded that Sig. > 0.05. That is, the regression equation model from the data collected from the survey is not significant.

From the Coefficients Table, the following formula can be drawn:

$$Y_1 = 2,952 + 0,057 X$$

The number is obtained from the Unstandardized column B. The two numbers are constant coefficients and variable coefficients, respectively.

Simple linear regression test against variable X (age) with variable Y2 (brand awareness)

Furthermore, researchers also tested the relationship between Variable X (Age) and Variable Y2 (Brand Awareness). Just like before, testing is done using the SPSS application. The output or result of simple linear regression testing that has been performed appears in the form of a series of four tables, as seen below.

Table 6
Results of Simple Linear Regression Testing on Variable X (Age) with Variable Y2 (Brand Awareness)

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	Usia ^b		Enter

- a. Dependent Variable: Brand Awareness
- b. All requested variables entered

Model Summary				
Model	R	R Square	Adjusted R Square	Std. error of the estimate
1	.248 ^b	.052	.010	42158

- a. Predictors: (constant), Asia

ANOVA ^a					
Model	Sum of squares	df	Mean Square	f	sig
Regression	210	1	210	1.183	.291 ^b
Residual	3.199	18	.178		
Total	3.409	19			

- a. Dependent Variable: Brand Awareness
- b. Predictors: (constant), Age

Just like the previous series of tables, the series of tables contained in Table 2 also describes the results of simple linear regression tests on variables X and Y2. Each table describes something different, according to the label of each table.

The dependent and independent variables are tested in the Entered/Removed Variables table. In this case, the influence of variable X on variable Y2 is tested. As the table states, the two variables processed in this simple linear regression test are X and Y2.

Next, there is the Model Summary table. This table loads the value of R (correlation coefficient). In the table, it is obtained that the correlation value of variable X and variable Y2 is 0.246. Again, the value falls into the weak category. Meanwhile, the KD value (coefficient of determination) shown in the R Square column is 0.062. The KD value obtained is 6.2% if converted into percent. In other words, variable X affects only variable Y2 by 6.2%. Another 93.8% of influences arise from factors other than variable X, which are not considered.

The ANOVA table describes the significance levels of the regressions tested. In the table, there is a Sig. Value, or significance value, of 0.291. Again, the value of Sig. Obtained is greater than 0.05. Therefore, it can be said that the linear regression model obtained is not significant because the model does not meet the proper linearity criteria. Through the Coefficients Table, the regression equation below can be obtained:

$$Y_2 = 3,568 - 1,33 X.$$

The equation is obtained by taking the constant and variable coefficients from the Unstandardized column B.

This study determined whether different ages can accept the effects and feel the attractiveness of different Tokopedia online advertising ads. To achieve good accuracy, the SPSS application is used as a tool to analyze data obtained from surveys that have been distributed.

The results of a simple linear regression test conducted on the data showed that age did not significantly affect Tokopedia's brand awareness or the attractiveness felt by the audience from Tokopedia advertisements. The findings break both hypotheses proposed earlier, which propose that age affects brand awareness and the appeal of Tokopedia's online advertising audience. In other words, researchers make incorrect assumptions.

Conclusion

Technological developments also have an impact on bringing progress and development in various fields. The Industrial Revolution 4.0, limited mobility due to the pandemic, and the discourse on the application of Society 5.0 have also encouraged the development of the internet and technology and its application to various aspects of life and the work sector. The emergence and popularity of digital marketing are among the impacts of applying technology in marketing. Online advertising or advertising carried out online is one example of the application of digital marketing. Young people, such as Millennials and Gen Z, are more active using the internet, technology, and social media. As digital natives, Millennials and Gen Z have been exposed to technology since childhood. Therefore, this study wants to see whether age can impact or influence brand awareness and appeal of online advertising. For this study, researchers chose Tokopedia as a brand that will be examined for brand awareness and online advertising.

The research was conducted by collecting data using survey methods. For this study, purposive sampling was used to select the appropriate sample. The survey is created using the Google Form tool and distributed to the appropriate respondents. The data obtained from the survey is then processed using SPSS. From the processing of these data, it was found that the influence of age on brand awareness and attractiveness of Tokopedia online advertising was not significant enough.

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