The Effect Of Sales Promotion On Purchase Decisions Mediated By Brand Image (Study On E-Commerce Tokopedia In Bali)

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ABSTRACT: The development of businesses that rely on the internet network now makes it easier for entrepreneurs to introduce and promote their products to influence consumer purchasing decisions. This study aims to explain the effect of sales promotion on purchasing decisions mediated by brand image on e-commerce Tokopedia in Bali. This study uses 100 respondents who use the Tokopedia marketplace as a means of shopping online with purposive sampling methods and path analysis techniques and Sobel test. Data obtained through the distribution of questionnaires.

The results of this study indicate that 1) Sales promotion has a positive and significant effect on purchasing decisions, which means that the better sales promotions carried out, the higher consumer purchasing decisions. 2) Brand image also has a positive and significant effect on purchasing decisions, which means the better the brand image of a product, the consumer's purchasing decisions to make purchases will increase. 3) Brand image significantly mediates the relationship between sales promotions and purchase decisions, which means that the better the sales promotion, the better the brand image and will increase consumer decisions to buy the product. For Tokopedia management, it is better to increase sales promotions in an attractive and maximal way to form a good brand image so that it is better known to consumers and influences decisions to make purchases at Tokopedia.

Keywords: sales promotion, purchase decision, brand image.

I. INTRODUCTION

In an era that is becoming completely technological as it is today, there are lots of media that provide information, for example print media, social media, television and others, which can be accessed for free and without limits. With this convenience, there are many advantages that can be utilized, including the economy, especially business development. As a new economic sector, the development of businesses that rely on the internet is now quite fast and has a positive impact. Because in this business it does not require a large cost, as well as a physical place to make a business. Even the majority of internet users choose online transactions instead of having to shop at the market or mall (Rahayu, 2017). The online shopping market is predicted to continue to increase along with the growth of internet access. In addition, the convenience provided by e-commerce actors is able to encourage people to shop online. The increasing number of e-commerce users makes business actors appear to take advantage of these opportunities and meet the needs of the community. Responding to the current phenomenon, marketers are required to know how current consumer behavior is in order to create purchasing decisions for their products.

The purchase decision is a stage in the buying decision-making process, where consumers actually buy the product (Kotler & Keller 2016). Therefore, the company must understand how consumers determine purchasing decisions so that they can find out how well the product sells in the market. According to Sumarwan (2011: 19) marketers are obliged to understand consumers, know what they need, what their tastes are, and how they make decisions, so that marketers can produce goods and services according to consumer needs.

One of the factors that influence consumer buying behavior is the marketing mix, which is a marketing tool used by companies to achieve their marketing goals. An important part of marketing and being part of the
marketing mix is promotion. Promotion is one way that can be done by companies to communicate products, and attract potential consumers to buy the products offered, either in the form of goods or services. In addition, promotions are carried out with the aim of offering, and informing the products they have, as well as to support various other marketing strategies (product strategies, pricing strategies, and distribution strategies).

Tokopedia is one of the e-commerce sites that has carried out intensive promotions to increase purchases. The management takes advantage of all the promotional mix, one of which is by creating a logo in the shape of an owl and in the form of a shopping basket which becomes the identity of the product so that it can be recognized by consumers. In addition, Tokopedia's e-commerce advertisements are carried out more modernly in attracting consumers in the mass media, especially electronic media. This makes e-commerce Tokopedia can be accepted quickly in the minds of consumers. This intensive promotion will create a good brand image in consumers. According to Amron (2018), Amrullah et al. (2016), Aristyowati et al. (2015), and Citra and Santoso (2016) state that brand image has a positive influence on purchasing decisions. A good brand image is one of the assets for the company, because brand image This has an impact on every consumer's perception, where the public will have a positive impression of the brand. Consumers assume that brands can provide added value for them, this is due to perceptions that cause consumers to be interested in buying them (Ambarwati, 2015).

Since its establishment until now, Tokopedia has continued to grow and compete with other e-commerce in the number of visitors. Appropriate sales promotions, a decision to buy and a good brand image are evidence that consumers are interested in the brand, therefore in this study a pre-survey was conducted regarding sales promotions, purchasing decisions and brand image of Tokopedia users who live in Bali. The results of the pre-survey conducted on 15 respondents, showed as many as 10 respondents who stated that the sales promotion carried out by Tokopedia had an effect on their purchasing decisions. Meanwhile, 5 respondents answered that Tokopedia's sales promotion had no effect on their purchasing decisions. Furthermore, with regard to brand image, as many as 13 respondents agreed that Tokopedia had a good reputation, while as many as 2 respondents stated the opposite because they were already loyal to make purchases in other e-commerce.

Research conducted by Paskalia (2019) states that promotion has a positive influence on purchasing decisions. The same thing is stated in the research conducted by Priccilia and MumuhMulyanyang (2014) that sales promotion has a positive influence on consumer purchasing decisions. However, it is different from the research conducted by Yusroni (2015) which states that sales promotion has no positive and insignificant effect on purchasing decisions. This research is supported by Yulihardi (2013) which states that promotion has no significant effect on purchasing decisions. The occurrence of these differences in research led to the use of brand image as a mediation which was supported by Purnamasari's research (2015).

Based on this background, the formulation of the problem in this study is (1) What is the effect of sales promotion on product purchasing decisions at Tokopedia e-commerce in Bali? (2) What is the effect of sales promotion on Tokopedia's e-commerce brand image in Bali? (3) What is the effect of brand image on Tokopedia's e-commerce purchasing decisions in Bali? (4) Does the role of brand image mediate the influence of sales promotion on purchasing decisions?. The purposes of this study are (1) to determine the effect of sales promotion on purchasing decisions in the case of e-commerce Tokopedia in Bali, (2) To determine the effect of sales promotion on brand image on e-commerce Tokopedia in Bali, (3) To determine the effect of brand image on purchasing decisions on e-commerce Tokopedia in Bali, (4) To determine the role of brand image mediating the effect of sales promotion on purchasing decisions in the case of Tokopedia in Bali.

II. LITERATURE REVIEW AND HYPOTHESIS OF RESEARCH

Consumer behavior

Kotler and Keller (2016:179) consumer behavior as a study of how the actions of individuals, organizations, and groups in buying, choosing and using ideas, products and services in satisfying customer needs and desires. The concept of the consumer behavior approach teaches that marketers tend to have a more customer orientation (consumer-driven orientation) and not just sell what the company produces (sales-oriented approach). Rangkuti (2015) states that consumer behavior is an action that is directly involved in obtaining, consuming, and disposing of products and services including the decision processes that precede and follow these actions. The factors that influence consumer behavior according to Kotler and Armstrong (2018:159-173) are as follows:
- **Culture Factor**: which consists of culture (the underlying cause of a person's desires and behavior), subculture (a group of people with a shared value system based on common life experiences and situations), and social classes (a relatively permanent and orderly division in a society whose members share the same values, interests, and behaviors).

- **Social Factory**: which consists of reference group (all groups that have a direct (face-to-face) or indirect influence on that person's attitude or behavior), family (society's most important consumer buying organizations and family members represent the most influential primary reference groups), and roles and status (people participate in many groups, families, clubs, and organizations).

- **Personal Factor**: When the purchase decision is also influenced by personal characteristics. Personal factors include age and stage in the buyer's life cycle, occupation and economic circumstances, personality and self-concept, and lifestyle and values.

- **Psychological Factor**: Purchase decisions are also influenced by psychological factors such as motivation, perception, learning, beliefs and behavior.

**Buying decision**

According to Kotler and Keller (2016: 199) consumer behavior refers to the buying behavior of individual end consumers and households who buy goods and services for personal consumption. All the final consumers combined make up the consumer market. According to Widiarsa and Sulistyawati (2018), purchasing decisions can be defined as a continuous process, which refers to the consistency of wise actions taken to bring satisfaction in needs. The indicators of purchasing decisions according to Kotler & Keller in Sriratnasari (2017), Dewi and Sudiksa (2019), Aaker (2008) are as follows.

- **Needs**: individuals begin to recognize the problem or need so that a decision arises to make a purchase.
- **Public**: decision making in which individuals have been interested in seeking more information through the mass media.
- **Benefit**: purchasing decision-making process in which individuals have previously used information to evaluate its benefits.
- **Recommended purchase**: before deciding to buy individuals get advice and recommendations from others.
- **Stability to buy**: a strong desire in the minds of consumers to buy.

**Sales promotion**

Sales promotion is a key element in a marketing campaign, consisting of a collection of incentive tools, most of which are short-term in nature, designed to stimulate the consumer to purchase a particular product or service more quickly or more. or trade (Kotler and Keller, 2016:622; Muderawan et al., 2020; Hermawan and Yasa, 2021). Yudha&Suprapti (2018) explain that sales promotion is a marketing technique used to make goods and services more attractive by providing some additional benefits, either in cash or in kind, or the expectation of benefits.

According to Ramsunder (2011:7) e-marketing is the use of electronic media sources as the main media in marketing, for example the use of the internet. Another opinion was conveyed by Hooda and Aggarwal (2012:108) who defined e-marketing as marketing products and services using electronic media. Kotler and Keller (2016:518), suggest that sales promotion is a short-term incentive to encourage product or service sales. In other words, it is a means to encourage consumers to make purchases of a product or service. Promotion indicators according to Kotler and Keller (2016: P.272) are as follows:

- **Promotional quality**: is a measure of how well sales promotions are carried out to improve consumer purchasing decisions
- **Promotion quantity**: is the value or number of sales promotions given to consumers to attract consumers' interest in trying the product
- **Promotion time**: is the length of promotion carried out by the company in an effort to introduce the product to the public
- **Accuracy and suitability of promotional objectives**: is a necessary factor to achieve the company's desired target
Brand Image

According to Kotler (2012:266) Brand Image is a vision and belief that is buried in the minds of consumers, as a reflection of associations that are held in consumers' memories. Brand Image is a representation of the overall perception of the brand and is formed from information and experience of the brand (Temaja and Yasa, 2019; Gita et al., 2020; Sutrisna and Yasa, 2021; Diputra and Yasa, 2021). According to Venessa and Arifin (2017) Brand Image is an association or belief that exists in the minds of consumers to be different from other brands such as labeling, letter designs or special colors. Brand Image indicators according to Keller in Kartono and Warmika (2018), Lubis (2016) are as follows.

- Easy to recognize: In addition to the logo, a brand is known through the message and the way in which the product is packaged and presented to consumers which is called a trade dress.
- Good reputation: For companies, image means the public's perception of the company's identity. This perception is based on what the public knows or thinks about the company in question.
- Always remembered: The brand elements chosen should be easy to remember, and to mention/pronounce.

Based on several previous studies related to the variables studied in this study, the research hypothesis can be formulated as follows.

1. Sales promotion has a positive and significant effect on purchasing decisions
2. Sales promotion has a positive and significant effect on brand image
3. Brand Image has a positive and significant effect on purchasing decisions
4. Brand Image mediates the effect of sales promotion on purchasing decisions

III. METHODOLOGY

The research was conducted on consumers or users of the Tokopedia marketplace in Bali, because the majority of Balinese people are users of the marketplace on Tokopedia. The object of research in this study is sales promotion, brand image, and purchasing decisions. The population in this study are consumers who make purchases using e-commerce Tokopedia. The sample used in this study amounted to between 60 to 120 respondents, this number was obtained based on the number of indicators, namely 12 indicators. So the sample taken from this study is the maximum number based on a multivariate count, namely 120 respondents obtained through the distribution of research instruments in the form of questionnaires. The data obtained in the field were tested first using the classical assumption test which was then analyzed by path analysis and Sobel test

IV. RESULT AND DISCUSSION

Validity and Reliability Test Results

The results of the validity tests carried out on this research instrument can be described in Table 1.

Table 1. Validity and Reliability Test Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Indicator</th>
<th>Pearson Correlation</th>
<th>Description</th>
<th>Cronbach Alpha</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales promotion</td>
<td>X.1</td>
<td>0.635</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X.2</td>
<td>0.697</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X.3</td>
<td>0.710</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X.4</td>
<td>0.612</td>
<td>Valid</td>
<td>0.662</td>
<td>Reliable</td>
</tr>
<tr>
<td>Brand image</td>
<td>M.1</td>
<td>0.724</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M.2</td>
<td>0.797</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M.3</td>
<td>0.762</td>
<td>Valid</td>
<td>0.636</td>
<td>Reliable</td>
</tr>
<tr>
<td>Buying decision</td>
<td>Y.1</td>
<td>0.744</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.2</td>
<td>0.636</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.3</td>
<td>0.848</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.4</td>
<td>0.678</td>
<td>Valid</td>
<td>0.789</td>
<td>Reliable</td>
</tr>
<tr>
<td></td>
<td>Y.5</td>
<td>0.794</td>
<td>Valid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data processed, 2020 (Appendix 4)
The results of the validity test in Table 1. can be seen that all research variable items have a Pearson correlation coefficient (r) greater than 0.3 so that it can be said that all research variable items are valid. Likewise with the results of reliability testing which is indicated by the Cronbach alpha value greater than 0.60. This means that all the instruments used obtain consistent data, in the sense that if the instrument is submitted again, an answer that is relatively the same as the first answer will be obtained.

Description Of Research Variables
(1) Sales Promotion (X)

Based on the results of the distribution of the sales promotion questionnaire, the respondents' answers to the sales promotion variable were obtained as presented in Table 2.

Table 2. Total scores, average scores and assessment categories of respondents' answers from sales promotion variables on Tokopedia

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>Response Frequency</th>
<th>Average</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I think Tokopedia's promotions are interesting</td>
<td>0 1 14 70 35</td>
<td>4.16</td>
<td>Good</td>
</tr>
<tr>
<td>2</td>
<td>I'm interested in the free shipping promotion that Tokopedia has to offer</td>
<td>0 3 20 56 41</td>
<td>4.13</td>
<td>Good</td>
</tr>
<tr>
<td>3</td>
<td>I often see promotions done by Tokopedia</td>
<td>0 8 37 45 30</td>
<td>3.81</td>
<td>Good</td>
</tr>
<tr>
<td>4</td>
<td>In my opinion, the products offered by Tokopedia are suitable for all circles</td>
<td>0 9 30 55 26</td>
<td>3.82</td>
<td>Good</td>
</tr>
</tbody>
</table>

Promotion Variable Score Average = 3.98 Good

Source: Primary data processed, 2020 (Appendix 5)

The data in Table 2. shows the distribution of respondents' answers to promotions with the highest average value of 4.16 in the statement I think the promotions carried out by Tokopedia are interesting and the lowest average value of 3.81 in the statement I often see promotions carried out by Tokopedia and The products offered by Tokopedia are suitable for all people. The average value for the promotion variable is 4.36, which is included in the good category.

(2) Brand Image (M)

Based on the results of the distribution of the brand image questionnaire, respondents' answers to the brand image variable were obtained as presented in Table 3.

Table 3. shows the distribution of respondents' answers to brand image with the highest average value of 4.45 in the statement I think Tokopedia is an easily recognizable e-commerce and the lowest average value is 4.28 in the statement I think Tokopedia has a logo and memorable name. The average value for the brand image variable is 4.36, which is included in the very good category.

Table 3. Total scores, average scores and categories of assessment of respondents' answers from the brand image variable on Tokopedia

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>Response Frequency</th>
<th>Average</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I think Tokopedia is an easy-to-recognize e-commerce</td>
<td>0 0 9 48 63</td>
<td>4.45</td>
<td>Very Good</td>
</tr>
<tr>
<td>2</td>
<td>I think Tokopedia has a good image in society</td>
<td>0 0 11 57 52</td>
<td>4.34</td>
<td>Very Good</td>
</tr>
<tr>
<td>3</td>
<td>I think Tokopedia has an easy-to-remember logo and name</td>
<td>0 2 6 69 43</td>
<td>4.28</td>
<td>Very Good</td>
</tr>
</tbody>
</table>

Average Brand Image Variable Score = 4.36 Very Good

Source: Primary data processed, 2020 (Appendix 5)
Based on the results of the distribution of the purchasing decision questionnaire, the respondents' answers to the purchasing decision variables were obtained as presented in Table 4.

Table 4 shows the distribution of respondents' answers to purchasing decisions with the highest average value of 4.38 in the statement I get recommendations from others to shop through Tokopedia and the lowest average value of 4.03 in the statement I am interested in finding more about Tokopedia via Instagram. The average value for the purchasing decision variable is 4.18, which is included in the good category.

Table 4. Total scores, average scores and categories of assessment of respondents' answers from purchasing decision variables on Tokopedia

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>Response Frequency</th>
<th>Average</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I'm interested in Tokopedia because it suits my needs</td>
<td>0 0 15 66 39</td>
<td>4.20</td>
<td>Good</td>
</tr>
<tr>
<td>2</td>
<td>I'm interested in finding out more about Tokopedia via Instagram</td>
<td>0 3 21 65 31</td>
<td>4.03</td>
<td>Good</td>
</tr>
<tr>
<td>3</td>
<td>The products provided by Tokopedia are in accordance with what is offered</td>
<td>0 3 21 60 36</td>
<td>4.08</td>
<td>Good</td>
</tr>
<tr>
<td>4</td>
<td>I get recommendations from other people to shop through Tokopedia</td>
<td>0 0 9 57 54</td>
<td>4.38</td>
<td>Very Good</td>
</tr>
<tr>
<td>5</td>
<td>I have a strong desire to make purchases through Tokopedia because of interesting advertisements and recommendations from others</td>
<td>0 0 12 66 42</td>
<td>4.25</td>
<td>Very Good</td>
</tr>
</tbody>
</table>

Average Score of Purchase Decision Variables 4.18 Good

Path Analysis

(1). Effect of Sales Promotion on Brand Image

Testing of Structure I was conducted to see the effect of sales promotion on brand image, then the regression results are presented in Table 5.

Based on the results of the Structure I path analysis as presented in Table 5, the following structural equations can be made.

\[ M = 0.340 X + e_1 \]  

\[ (1) \]

From the results of SPSS calculations, a sig.t value comparison of 0.001 is less than the significant value used (0.001 < 0.05), and the beta value on the standardized coefficients is 0.340 which indicates a positive direction and shows that sales promotions have a positive and significant effect on the brand image. The average value of 34.0 percent, while the remaining 66.0 percent is influenced by other factors outside the model. From the test results, it can be concluded that sales promotion has a positive and significant effect on brand image, which means H0 is rejected and H2 is accepted. These results support previous research conducted by Astari (2019), Steven (2018) and Citra (2016) which showed that sales promotion had a significant positive effect on brand image.
Table 5. Results of Structure Path Analysis I

<table>
<thead>
<tr>
<th>Model</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized Coefficients</td>
<td>Standardized Coefficients</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
<td>Sig.</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>9.902</td>
<td>.881</td>
<td></td>
<td>11.245</td>
<td>.000</td>
</tr>
<tr>
<td>Sales Promotion</td>
<td>.199</td>
<td>.055</td>
<td>.340</td>
<td>3.580</td>
<td>.001</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Brand Image
b. R Square: 0.116
c. Sig.F: 0.001

Source: Appendix 9

(2). Effect of Sales Promotion, and Brand Image on Purchase Decision

Testing of Structure I was conducted to see the effect of sales promotion, and Brand Image on purchasing decisions, then the regression results are presented in Table 6.

Table 6. Results of Structure Path Analysis II

<table>
<thead>
<tr>
<th>Model</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized Coefficients</td>
<td>Standardized Coefficients</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
<td>Sig.</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>3.557</td>
<td>1.626</td>
<td></td>
<td>2.187</td>
<td>.031</td>
</tr>
<tr>
<td>Sales Promotion</td>
<td>.583</td>
<td>.072</td>
<td>.567</td>
<td>8.103</td>
<td>.000</td>
</tr>
<tr>
<td>Brand Image</td>
<td>.620</td>
<td>.123</td>
<td>.352</td>
<td>5.028</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Purchase Decision
b. R square: 0.580
c. Sig.F: 0.000

Source: Appendix 9

Based on the results of the Structure I path analysis as presented in Table 5, the following structural equations can be made.

\[ Y = 0.567X + 0.352M + e_2 \]  

From the results of the SPSS calculation, it is found that the comparison of the sig.t value of 0.000 is less than the significant value used (0.000 < 0.05) and the beta value on the standardized coefficients is 0.567 which indicates a positive direction and shows that sales promotions have a positive and significant effect on purchasing decisions. by 56.7 percent, while the remaining 43.3 percent is influenced by other factors outside the model. From the test results, it can be concluded that sales promotion has a positive and significant effect on purchasing decisions, which means H0 is rejected and H1 is accepted. These results support previous research conducted by Mirabi et al (2015) and Setio (2018) which stated that the sales promotion variable had a positive and significant effect on purchasing decisions. In contrast, Yusroni (2015) found that there was a relationship that had no positive and insignificant effect on purchasing decisions.

From the results of the SPSS calculation, it is found that the comparison of the sig.t value of 0.000 is less than the significant value used (0.000 < 0.05), and the beta value on the standardized coefficients is 0.352 which indicates a positive direction and indicates that brand image has a positive and significant effect on decisions. purchases of 35.2 percent, while the remaining 64.8 percent is influenced by other factors outside the model. From the test results, it can be concluded that brand image has a positive and significant effect on purchasing decisions, which means H0 is rejected and H3 is accepted. These results support previous research.
conducted by Sri (2017) and Citra and Santoso (2016) which showed that brand image had a positive and significant effect on purchasing decisions. In contrast to what was found by Nurhayati (2017) stating that brand image has no effect on purchasing decisions and Widyasari et al. (2018) suggests that brand image has no effect on purchasing decisions.

Model Validity Examination

Checking the validity of the model on path analysis is calculated using the coefficient of total determination. Previously, it was necessary to calculate the standard error value as follows.

\[ Pe_1 = \sqrt{1 - R^2} = \sqrt{1 - 0.116} = 0.940 \]

\[ Pe_2 = \sqrt{1 - R^2} = \sqrt{1 - 0.580} = 0.648 \]

Based on the calculation of the standard error value, the results obtained that \( e_1 \) or standard error of model I is 0.940 and \( e_2 \) or standard error of model II is 0.648. The calculation of the coefficient of total determination is as follows:

\[ R^2_{m} = 1 - (e_1)^2 (e_2)^2 \]

\[ = 1 - (0.940)^2 (0.648)^2 \]

\[ = 0.631 \]

The coefficient of total determination of 0.631 means that 63.1 percent of the variation in purchasing decisions is influenced by sales promotion and brand image, while the remaining 36.9 percent is influenced by other factors not included in the research model.

Furthermore, it can be calculated the magnitude of the direct influence and indirect effect as well as the total effect between variables. The calculation of the effect between variables is summarized in Figure 1. as follows.

![Figure 1. Path Analysis Diagram](image)

(1) Direct effect
   a) The effect of sales promotion (X) on brand image (M) is 0.340.
   b) The effect of sales promotion (X) on purchasing decisions (Y) is 0.567.
   c) The effect of brand image (M) on purchasing decisions (Y) is 0.352.

(2) Indirect effect (indirect effect)
The influence of sales promotion (X) on purchasing decisions (Y) with brand image (M) as a mediating variable is:

\[ \text{Indirect effect} = 1 \times 3 = 0.340 \times 0.352 = 0.119 \]

(3) Total effect
The total influence of the sales promotion variable (X) on purchasing decisions (Y) with brand image (M) as an intermediary variable:
Total effect = 2 + (β1 x 3) 
= 0.567 + 0.119 
= 0.686

Sobel test

Sobel test is an analytical tool to test the significance of the indirect relationship between the independent variable and the dependent variable mediated by the mediator variable. The Sobel test is formulated with the following equation and can be calculated using the Microsoft Excel 2010 application. If the Z calculation value is greater than 1.96 (with a brand image level of 95 percent), then the mediator variable is assessed to significantly mediate the relationship between the dependent variable and the independent variable. 

Determining the hypothesis and the level of significance

H0 : Brand image does not mediate the relationship between sales promotions and purchasing decisions
H4 : Brand image is stated to mediate the relationship between sales promotions and purchasing decisions

\[ Z = \frac{ab}{\sqrt{b^2S_a^2+a^2S_b^2+S_a^2S_b^2}} \] (3)

Description:

\( a = 0.340 \)
\( S_a = 0.055 \)
\( b = 0.352 \)
\( S_b = 0.123 \)

\[ Z = \frac{0.340 \times 0.352}{\sqrt{(0.352^2 \times 0.055^2) + (0.340^2 \times 0.123^2) + (0.055^2 \times 0.123^2)}} \]

\[ Z = 2.569 \]

Based on the results of the Sobel test, it shows that the tabulation results \( Z = 2.569 > 1.96 \), which means the fourth hypothesis is accepted, meaning that the brand image variable significantly mediates the relationship between promotions and purchasing decisions. This means that the better the sales promotion, the better the brand image and will improve consumer decisions in purchasing these products. These results support previous research conducted by Desy (2017), Purnamasari (2015) and Evelina et al (2012) which stated that brand image was able to mediate the influence of sales promotion on purchasing decisions.

V. CONCLUSION AND SUGGESTION

Based on the results of the previous discussion and description, the following conclusions can be drawn:

1) Sales promotion has a positive and significant effect on purchasing decisions. This means that the better the sales promotion that is carried out, it will improve consumer purchasing decisions.

2) Sales promotion has a positive and significant effect on brand image. This means that the better the sales promotion, the better the brand image of the product.

3) Brand image has a positive and significant effect on purchasing decisions. This means that the better the brand image of a product, the consumer's decision to make a purchase will also increase.

4) Brand image significantly mediates the relationship between sales promotion and purchasing decisions. This means that the better the sales promotion, the better the brand image and will improve consumer decisions in purchasing these products.

Suggestions that can be given based on the results of the study are as follows.

1) Tokopedia should increase promotions by highlighting the advantages of Tokopedia, such as offering products that are suitable for all groups so that consumers will feel interested in visiting the Tokopedia e-commerce site.

2) Tokopedia should further improve the reality of a product being sold with the reality of the product that will be accepted by consumers, so that the desire to shop at Tokopedia arises and make purchasing decisions.
Tokopedia can also improve its brand image by promoting its logo and tagline through advertising media that is easily accessible to the public and improving services so that Tokopedia can have a good image in the community.

For the next researcher, it is necessary to consider examining other variables, factors, and indicators of sales promotion and brand image to determine purchasing decisions. Such as product quality variables, service quality, and others.

REFERENCES


