The Influence of Personal Branding, Price, and Brand Image on Purchasing Decisions for SMC Pneumatic in Batam Industrial Sector

Yulinda Tarigan[1], Alrido Martha Devano[2], Isti Khairiah[3], Ken Zabiy Muhammad Arief[4]

{yulinda@polibatam.ac.id[1], alridomd@polibatam.ac.id[2], istyykhairiah@gmail.com[3], ken.arief@imt-atlantique.net[4]}

Politeknik Negeri Batam, Management and Business Department, Batam City, Indonesia[1,2,3]
Management and Optimization of Supply Chain & Transportation, IMT Atlantique, Nantes, France[4]

Abstract. The purchase decisions for SMC Pneumatics at PT Benwin Indonesia are the subject of this research, which aims to investigate the impact of price, brand image, and personal branding. Employing an explanatory research design to test a theory or hypothesis and determine whether the theory or hypothesis can be accepted or rejected. Therefore, this study requires a quantitative methodology. The researcher utilizes both primary data - data obtained through a questionnaire administered to 150 respondents - and secondary data - information collected through existing company documents. The sampling technique employed is purposive sampling. The analytical tool used in this study is SmartPLS 3.0. According to the research findings: personal branding does not influence customer decisions to purchase SMC Pneumatics; price has a positive and significant effect on purchasing; brand image has a positive and significant impact on the purchase decisions of SMC Pneumatics.

Keywords: Personal Branding, Price, Brand Image, Purchase Decision

1. Introduction

In the industrial world, pneumatic systems are essential as they can significantly support a company's operations. Pneumatics involves compressed air utilized as a form of stored energy to create pressure, which is then harnessed to generate motion. Pneumatic products are in demand within industries due to their capacity to facilitate operational tasks by providing the necessary force for high-level labor-intensive operations. With its headquarters in Japan, SMC is a global company specializing in pneumatic systems and has been engaged in this business since 1959. The company has gained the trust of nearly all industries worldwide by providing pneumatic systems. This research will focus on the SMC Pneumatics product line supplied by PT Benwin Indonesia. As is known, Batam's status as an industrial city contributes to a high demand for pneumatic product manufacturing.

SMC Pneumatics was chosen as the research subject due to its consistent sales performance, even during the pandemic, when compared to 3M Electrical Products and RS Mechanical Electrical Parts. The sales graph of PT Benwin Indonesia during the pandemic is presented in Figure 1. The figure indicates that SMC Pneumatics has the most consistent sales growth compared to 3M Electrical Products and RS Mechanical Electrical Parts. Therefore, this graph can be used as a basis for selecting SMC Pneumatics as the product line for this research.

The knowledge gap from previous research has implications for the continuity of this study. Price and brand image have a significant influence on purchase decisions.
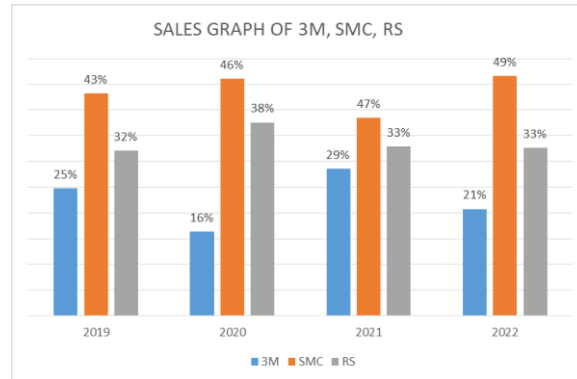

Figure. 1. Sales Graph of 3M, SMC, RS

This study has a background that is influenced by the research gap of previous studies. Based on previous research, they concluded that brand image and price have a positive and significant effect on purchasing decisions [1][2][3][4]. A variable of personal branding was added to supplement previous research as an independent variable. So, in this study, there are independent variables that will be tested, namely personal branding (X1), price (X2), and brand image (X3).

As personal branding is an additional independent variable beyond the factors mentioned earlier, this study differs from previous research. Consequently, three independent factors will be explored in this study: Personal Branding (X1), Price (X2), and Brand Image (X3). In line with the context underlying this research, the research title will be "The Influence of Personal Branding, Price, and Brand Image on Purchase Decisions of SMC Pneumatics at PT Benwin Indonesia." Based on the description above, the objective of this research is to examine the influence of personal branding, price, and brand image on the purchase decisions of SMC Pneumatics at PT Benwin Indonesia.

1.1. Theoretical Review

1.1.1. Personal Branding

Personal branding is a strategy used to control how others perceive and value an individual in terms of personality, abilities, and other positive attributes they possess. The goal is to influence society in shaping their views about that individual [1]. With this understanding, personal branding can be referred to as the process in which an individual is turned into a brand for the public or a specific group of people.

1.1.2. Price

Price is a predetermined value in the sale of goods and services that can change based on agreements between sellers and buyers to provide satisfaction to customers. Moreover, price can be understood as a component that portrays the quality of a product. A low price will create the perception in consumers that the product is of lower quality, while a high price will lead consumers to believe that the product has better quality [2].

1.1.3. Brand Image

Brand image is referred to as the viewpoint of one or more individuals in assessing a brand [3]. Thus, brand image can be understood as the perception formed through experiences, allowing it to serve as a basis for comparison with other similar brands.

1.1.4. Purchase Decision

Purchase decision is the stage where an individual goes through the decision-making process to acquire a product or service [4]. Each purchase decision not only results in a sale but also serves as a customer review and consideration for future purchases.

1.1.5. Hypotheses

Here are the hypotheses that will be tested:

H_1: Personal branding has a positive and significant influence on the purchase decisions of SMC Pneumatics at PT Benwin Indonesia.

H_2: Price has a positive and significant influence on the purchase decisions of SMC Pneumatics at PT Benwin Indonesia.

H_3: Brand image has a positive and significant influence on the purchase decisions of SMC Pneumatics at PT Benwin Indonesia.

2. Research Method

2.1. Research Instruments

This research utilizes the Google Forms application to distribute online questionnaires, enabling participants to respond to a series of questions more effectively and efficiently. The researcher employs a Likert scale when surveying to gather quantitative data that can be evaluated. However, in this study, the Likert scale has been modified to a 1-4 scale according to guidance and approval from the marketing manager. This modification aims to prevent respondents from providing neutral or ambiguous responses, thereby allowing the marketing division to ascertain whether customers agree or disagree with the indicated values.

2.2. Sample Size Determination Technique

Population is defined as an area or region that typically consists of objects or individuals with specific quantities and characteristics, according to [5] The population of this research consists of 240 customers of PT Benwin Indonesia. To ensure greater representativeness, the population size of 240 individuals is used to calculate the sample size in this study using the Yamane formula. Here is the Yamane formula:

$$n = \frac{N}{1+Ne^2} \quad \text{or} \quad n = N/(1 + (N \times e^2)) \qquad (1)$$

n = required sample size

N = total population size

e = The percentage of the tolerance limit (Margin of error) is 5%.

Using the given formula (1), the sample calculation is as below (2):

$$n = 240 / (1 + (130 \times 0.05^2))$$
$$n = 240 / (1 + (240 \times 0.0025))$$

$$n = 240 / (1 + 0.6)$$
$$n = 240 / 1.6$$
$$n = 150 \qquad\qquad (2)$$

The result of this calculation is rounded, resulting in 150 respondents for this research sample.

2.3. Sampling Technique

The researcher needs to classify the current population to select a sample that meets the predefined criteria, which is also known as the purposive sampling method. Customers of PT Benwin Indonesia who have previously purchased SMC Pneumatics products are the sample criteria for this research.

2.4. Data Analysis Technique

Using the SmartPLS 3.0 program, Structural Equation Modelling (SEM) or Partial Least Squares (PLS) path modeling is an approach based on variance used for path analysis in behavioral research. Therefore, PLS is seen as a statistical method used for multiple dependent or independent variables. The outer model and inner model are two measurement methods employed in PLS-SEM analysis within this research.

2.5. Descriptive Analysis

The indicator values for each variable considered in this study are evaluated using descriptive analysis based on the index values in the equation (3) derived from the three boxes method formula [6]:

The maximum score range limit. $\quad: (\%F*4) / 4 = (150*4) / 4 = 150$

The minimum score range limit. $\quad: (\%F*1) / 4 = (150*1) / 4 = 37,5 \qquad (3)$

2.6. Outer Model Analysis (Measurement Model)

The outer model is utilized in this study to examine the validity and reliability of reflective indicators. This outer model takes into account the convergent validity, discriminant validity, and composite reliability of the indicators that constitute the latent constructs, as well as the composite reliability of indicator blocks and Cronbach's alpha, Convergent validity, discriminant validity, and reliability testing (Cronbach's Alpha) collectively form the outer model used in the analysis. The outer model analysis is crucial for assessing the effectiveness of the indicators in accurately measuring their respective latent constructs. It plays a pivotal role in establishing the quality and trustworthiness of the measurement instruments [7].

2.7. Inner Model Analysis (Structural Model)

The causal relationships between financial variables that can be tested become evident when several Coefficient of Determination (R^2) indicators are used to identify the model. R-Square for a variable's model can be calculated using Q-Square, also known as predictive relevance, which measures how well the observed values follow the model and its parameter estimates. When the Q-Square value is greater than zero, a model is considered to have predictive value [7].

2.8. Hypothesis Test Results

To establish evidence in this study, the T Statistic value should surpass the critical value of T Table 1.96 (5%). In the testing of the inner model, hypothesis testing is conducted by observing the results of the calculated Path Coefficients [7].

3. Result and Discussion

3.1. Data Analysis of Research Results

3.1.1. Frequency of Personal Branding Indicators

The frequency of personal branding indicators can be seen in Figure 2. Indicator X1.2 demonstrates the highest index value within personal branding and falls under the high category, while indicator X1.4 shows the lowest index value and also falls under the high category. Therefore, the average index value for the personal branding variable is 138.6, which also falls into the high category.
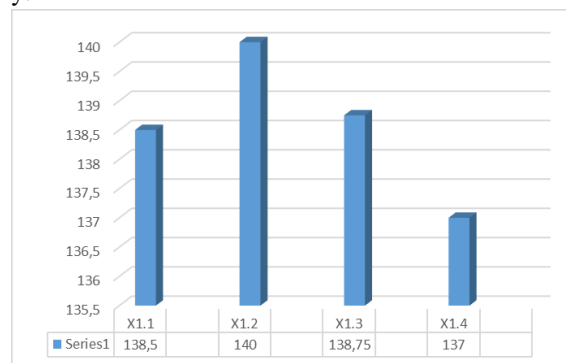

Figure. 2. Frequency of Personal Branding Indicators

3.1.2. Frequency of Price Indicators

The frequency of the price indicator can be seen in Figure 3. Indicator X2.4 displays the highest index value in the price variable and falls under the high category, whereas indicator X2.2 indicates the lowest index value and also falls under the high category. Therefore, the average index value for the price variable is 134.4, which falls under the high category.
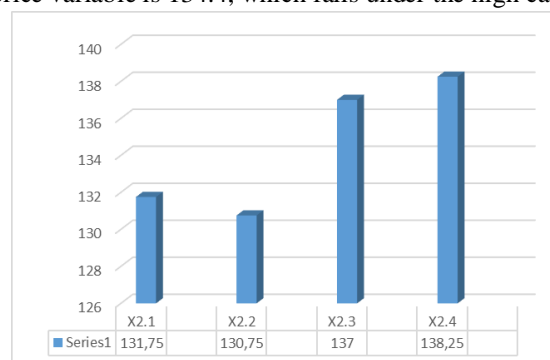

Figure. 3. Frequency of Price Indicators

3.1.3. Frequency of Brand Image Indicators

The frequency of the brand image indicator can be seen in Figure 4. Indicator X3.4 shows the highest index value within the brand image variable and falls under the high category, while Indicator X3.3 indicates the lowest index value and also falls under the high category. Therefore, the average index value for the brand image variable is 135, which falls under the high category.
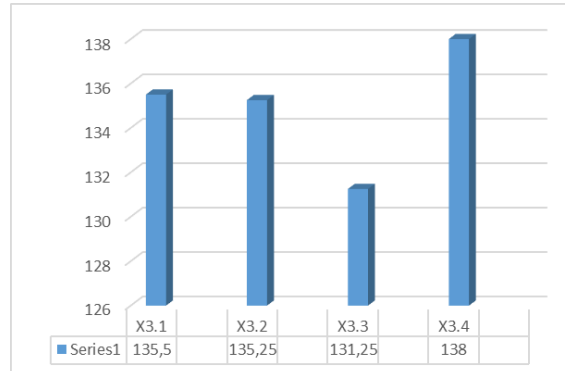

Figure. 4. Frequency of Brand Image Indicators

3.1.4. Frequency of Purchase Decision Indicators

The frequency of the purchase decision indicator can be seen in Figure 5. Indicator Y2 displays the highest index value within the purchase decision variable and falls under the high category, while Indicator Y1 indicates the lowest index value and also falls under the high category. Therefore, the average value for the purchase decision variable is 132.94, which falls under the high category.

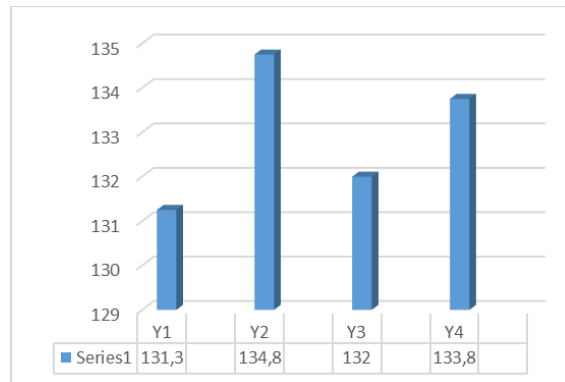**Figure. 5.** Frequency of Purchase Decision Indicators

3.2. Results of Structural Equation Modelling (SEM) PLS Test

3.2.1. Evaluation of Measurement Model (Outer Model)

Convergent Validity

In this test, if the outer loading results exceed 0.70, the indicators are considered to have good reliability. The convergent validity results of this study are provided in Table 1. The personal

branding variable can be considered valid as the loading factor results for all indicators that exceed 0.5 (see Table 1).

Table 1. Convergent Validity Test Results for Personal Branding

Item	Loading Factor	Information
X1.1	0,749	Valid
X1.2	0,844	Valid
X1.3	0,781	Valid
X1.4	0,848	Valid

The price variable can be considered valid as the loading factor results for all indicators of the price variable in Table 2 are greater than 0.5.

Table 2. Convergent Validity Test Results for Price

Item	Loading Factor	Information
X2.1	0,773	Valid
X2.2	0,797	Valid
X2.3	0,776	Valid
X2.4	0,731	Valid

The brand image variable can be considered valid as Table 3 displays loading factor results for all brand image indicators exceeding 0.5.

Table 3. Convergent Validity Test Results for Brand Image

Item	Loading Factor	Information
X3.1	0,808	Valid
X3.2	0,780	Valid
X3.3	0,861	Valid
X3.4	0,783	Valid

The purchase decision variable can be considered valid, as Table 4 displays loading factor results for all purchase decision indicators above 0.5.

Table 4. Convergent Validity Test Results for Purchase Decision

Item	Loading Factor	Information
Y.1	0767	Valid
Y.2	0,809	Valid
Y.3	0,840	Valid
3.4	0,747	Valid

Discriminant Validity

The constructs of personal branding, price, brand image, and purchase decision all have values greater than 0.5 according to the AVE data presented in Table 5. Therefore, each construct meets the criteria for good Discriminant validity

Table 5. Average Variance Extracted (AVE)

Variables	Average Variance Extracted (AVE)
Brand Image	0.654

Price	0.592
Purchase Decision	0.627
Personal Branding	0.650

Composite Reliability and Cronbach's Alpha

A construct can be assessed for its reliability by examining its composite reliability and Cronbach's alpha. A construct is considered to have good reliability if its composite reliability value exceeds 0.70 and its Cronbach's alpha value exceeds 0.7. The following Table 6 is the results of the analysis of Cronbach's alpha and composite reliability for this study. All constructs have sufficiently good reliability, as each of them has Cronbach's alpha and composite reliability values exceeding 0.70.

Table 6. Composite Reliability and Cronbach's Alpha

Item	Cronbach's Alpha	Composite Reliability
Brand Image	0,824	0,883
Price	0,770	0,853
Purchase Decision	0,800	0,870
Personal Branding	0,822	0,881

3.2.2. Results of Structural Model (Inner Model)

The inner model, evaluated by examining R-squared (indicator reliability) for dependent constructs and T-statistics of path coefficient tests, will now be used to validate the data that passed the analysis using the outer model. The predictive quality of the model increases with higher R-Square values. The relevance of the tested hypotheses will be indicated by the path coefficient values.

Variance Analysis (R-squared) or Determination Test

Table 7 below shows the findings from the R-squared calculations, which are useful for understanding the influence of independent variables on the dependent variable. Based on R-squared values, personal branding, price, and brand image collectively explain 62.6% of the variance in purchase decisions, while the remaining 38.1% is influenced by other variables

Table 7. R-Square Endogenous Variable

Variable	R Square
Purchase Decision	0,626

Q-Square

The Q-Square (Q2) value is used in this study to assess the goodness of fit of the structural model. The R-Square value for each endogenous variable in this study can be calculated using the following formula (4). The predictive relevance values are greater than 0 according to the calculations. This explains that the model is indeed capable of generating accurate predictions.

$$Q^2 = 1 - (1-R1)$$
$$Q^2 = 1 - (1 - 0.626)$$

$$Q^2 = 1 - (0,374)$$
$$Q^2 = 0,626 \qquad\qquad (4)$$

Path Coefficient

In evaluating a structural model, the P-value can be used to determine the significance of a predictive model. It can be stated that exogenous factors significantly influence an endogenous variable if the P-value is lower than 0.05 or 5% (see Figure 6).
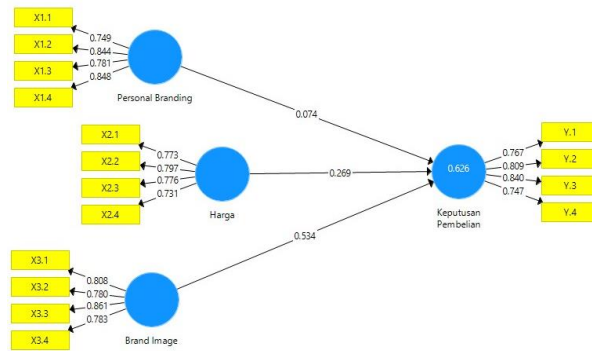

Figure. 6. Bootstrapping

The importance of the relationship between each exogenous variable, namely personal branding, price, and brand image, can be inferred from Table 8, which is:

1) The purchase decision of SMC Pneumatics is not influenced by the personal branding variable. This is evidenced by the P-value of 0.431, which is greater than 0.05.
2) The price variable significantly influences the purchasing decision of SMC Pneumatics. This is evidenced by the P-value of 0.002, which is less than 0.05, indicating that this is indeed true.
3) The brand image variable significantly influences the purchasing decision of SMC Pneumatics. This is evidenced by the P-value of 0.000, which is less than 0.05.

Table 8. Path Coefficient

Variable	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics (O/STEDV)	P Values
Brand Image → Purchase Decision	0,534	0,530	0,099	5,397	0,000
Price → Purchase Decision	0,269	0,273	0,087	3,082	0,002
Personal Branding → Purchase Decision	0,074	0,080	0,094	0,789	0,431

3.2.3. Hypothesis Testing

Below is the result of the hypothesis test that was being carried out:

1) Personal branding does not significantly influence customer purchasing decisions, in line with the research findings of a T-Statistic of 0.789. This is because its significance level

is lower than the critical T-value of 1.96. Therefore, it can be concluded that hypothesis statement H1, "Personal branding has a positive and significant influence on the purchasing decisions of SMC Pneumatics at PT Benwin Indonesia," is rejected. On the contrary, previous research conducted by [12] stated that personal branding significantly influences the purchase decision.

2) Based on the significant T-Statistic finding of 3.082, which is greater than the critical T-value of 1.96, it can be concluded that price has a positive and significant influence on purchasing decisions. Therefore, Hypothesis H2, "Price has a positive and significant influence on the purchasing decisions of SMC Pneumatics at PT Benwin Indonesia," is accepted.

3) Brand image has a positive and significant influence on purchasing decisions, in line with the T-Statistic finding with a significance value of 5.397 (higher than the critical T-value of 1.96). Therefore, Hypothesis H3, "Brand image has a positive and significant influence on the purchasing decisions of SMC Pneumatics at PT Benwin Indonesia," is accepted.

4. Conclusion

The research findings offer valuable insights into the factors influencing consumer purchasing decisions at PT Benwin Indonesia. Firstly, it is evident that personal branding, although present among the sales staff, plays a relatively minor role in shaping customer choices to buy SMC Pneumatics. This suggests that while personal branding might have some importance, it does not significantly sway consumers' preferences.

In contrast, the impact of pricing on consumer purchasing decisions is substantial and positive. These findings emphasize the critical role of pricing strategies in driving sales of SMC Pneumatics at PT Benwin Indonesia. When implemented effectively, the right pricing strategy can be a powerful tool to encourage customers to choose SMC Pneumatics over other options in the market.

Additionally, the research underlines the significance of brand image in influencing consumer purchasing decisions. SMC Pneumatics has successfully cultivated a positive brand reputation, which significantly attracts customer interest and influences their purchase choices. This highlights the importance of maintaining and enhancing brand image to continue capturing consumer attention and loyalty.

In summary, these findings shed light on the multifaceted nature of consumer purchasing decisions. While personal branding might have a limited impact, pricing strategies, and a positive brand image are key drivers that PT Benwin Indonesia can leverage to effectively shape consumer preferences and increase sales of SMC Pneumatics.

5. Suggestion

Based on the research findings and conclusions, the researcher puts forth several recommendations to guide the strategy of PT Benwin Indonesia. The study has revealed that personal branding, while present, does not exert a significant influence on the sales of SMC Pneumatics at PT Benwin Indonesia. Consequently, the sales and marketing department should

strengthen and enhance the SMC Pneumatics sales strategy. By doing so, they can enhance customer interest in the product and potentially boost sales.

Furthermore, the research underscores the importance of price and brand image in shaping consumer purchasing decisions. To capitalize on this insight, PT Benwin Indonesia should continue to thrive by offering competitive pricing for SMC Pneumatics, thus attracting a broader customer base. Additionally, maintaining and enhancing the positive brand image of SMC Pneumatics is crucial for sustaining consumer interest and trust in the product.

In light of these findings, future researchers are encouraged to conduct more extensive studies, employing a wider range of research methods and variables. Exploring how personal branding, price, and brand image interact to influence purchasing decisions can yield a deeper understanding of the intricate relationships between these factors. This, in turn, will provide a more comprehensive perspective on consumer behavior and assist companies like PT Benwin Indonesia in crafting more effective marketing and sales strategies.

References

[1] Chandra, A. P., & Santoso, T: The Effect of Brand Image, Product Quality, and Price on Purchasing Decisions at Mini Melts Surabaya Outlet. Agora (2019)

[2] Firmanto, Y.: The Effect of Brand Image and Price on Consumer Purchasing Decisions on KFC Chicken Products. Journal of Management and Business, 74-83. (2019)

[3] Siregar, J. S., & Widiastuti, E:. The Influence of Personal Branding, Product Quality, and Price on Purchasing Decisions of Batik Products at Danar Hadi Surakarta. Surakarta Management Journal, 21-29 (2019)

[4] Rahayu, S.: The Effect of Brand Image and Promotion on The Purchase Decision of Tony Jack Jeans Product at DNA Store south of Tanggerang. Technology and Management. (2022)

[5] Raharjo, F. S.: The Master Book of Personal Branding. Yogyakarta: Quadrant. (2019)

[6] Sumarwan, U., & Tjiptono, F: Marketing Strategy in the Perspective of Consumer Behavior. Marketing Management. (2019)

[7] Sari Dewi, L. P., Edyanto, N., & Siagian, H.: The Effect of Brand Ambassador, Brand Image, and Brand Awareness on Purchase Decision of Pantene Shampoo in Surabaya, Indonesia. SHS Web of Conferences. (2020)

[8] Indriyani, R., & Suri, A.: The Effect of Social Media on Purchasing Decisions through Consumer Motivation on Fast Fashion Products. Marketing Management (2020)

[9] Sugiyono. (2018). Quantitative Research Methods. Bandung: Alfabeta.

[10] Anjani, S. L., Yuliniar, & Aziz, A.: The Effect of Brand Image, Promotion, and Price on Decisions. Business Management, Economic, And Accounting National Seminar, 848-860. (2021)

[11] Dulyadi: Scientific Research Methods: Empirical Research Methods Path Analysis Model and Analysis Using SmartPLS. Semarang: Prima Agus Teknik Foundation. (2021)

[12] Siregar, A. H.: The Effect of Price, Brand Image, and Personal Branding on the Decision to Buy a House Unit at the Royal Sumatra Complex. Methodist Accounting and Finance, 161-173. (2021)