



+62 813 8765 4578

+62 813 8765 4578

<https://dinastipub.org/DIJEMSS>

dinasti-info@gmail.com

THE EFFECT OF PRICES, BRAND IMAGES, AND AFTER SALES SERVICE REINFORCED BAR STEEL PRODUCTS ON CONSUMER PURCHASING DECISIONS OF PT. KRAKATAU WAJATAMA OSAKA STEEL MARKETING

Rendy Sutiyono¹, Baruna Hadibrata²

^{1,2}Program Pascasarjana Universitas Mercu Buana, Jakarta, Indonesi

ARTICLE INFORMATION

Received: 12th May 2020

Revised: 25th June 2020

Issued: 22th August 2020

Corresponding author:

Rendy Sutiyono

rendydradish@gmail.com



DOI:10.31933/DIJEMSS

Abstract: This research aims to determine the effect of Price, Brand Image and After Sales Service of Reinforcing Steel Products on Consumer Purchasing Decisions of PT. Krakatau Wajatama Osaka Steel Marketing. This research was conducted on 265 respondents PT. Krakatau Wajatama Osaka Steel Marketing spread all over Indonesia. The research data collection method uses a questionnaire with SEM (Structural Equation Modeling) data analysis which is described in the Application of Model Evaluation of PLS (Partial Least Square) - SEM. The results of this study indicate that the variable price has a positive and significant effect on Purchasing Decisions. Brand Image Variable has positive and significant effect on Purchasing Decisions. While the After Sales Service variable also has a positive and significant effect on Purchasing Decisions.

Key Words: Price, Brand Image, After Sales Service, Purchasing Decisions, Evaluation of PLS - SEM Model

INTRODUCTION

Steel is one of the important raw materials for infrastructure, whose consumption per capita shows the development of a country's industry. The average per capita steel consumption in Indonesia is estimated to increase to 3% in 2019 causing an increase in domestic demand for steel products in general.



Figure 1. Projected steel demand in Indonesia until 2025 (Source: SEAISI 2017)

Figure 1. shows the projected steel demand increasing from 2015 to 2025 in Indonesia. Based on the projection of the South East Asia Iron and Steel Institute (SEAISI) in 2017, the annual demand for steel has increased by around 800,000 - 1,100,000 tons. This figure shows that the high potential for increased steel sales in general.

The development of infrastructure is currently very rapid to meet the needs of public facilities such as toll roads, stadiums, hotels, high rise buildings, etc. causing an increase in the need for many raw materials to support the construction process of public facilities. One of the raw materials that are needed is reinforcing steel. The business environment in the sale of reinforcing steel at this time with the emergence of many reinforcing steel producers (SNI and Non-SNI) and unstable economic conditions have an impact on the ups and downs of people's purchasing power and loyalty to a certain reinforcing steel products.

However, the phenomenon that occurred at PT. Krakatau Wajatama Osaka Steel Marketing (Krakatau Steel Group) engaged in reinforcing steel sales experienced ups and downs in sales in 2018.

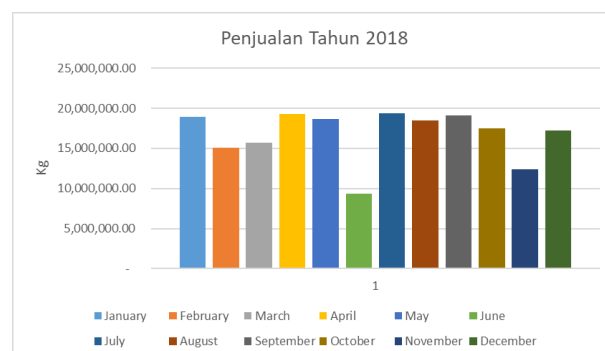


Figure 2. Steel reinforcement sales PT. KWOSM in 2018
Source: Internal Data PT. KWOSM

Figure 2. shows that PT. Krakatau Wajatama Osaka Steel Marketing (PT. KWOSM) experienced an increase and decrease in sales of reinforcing steel in each month throughout 2018. The biggest decline occurred in June 2018, from 18,677 tons of reinforcing steel sales in May 2018 to 9,384 tons in June 2018, then followed by a significant increase to 19,362 tons in July 2018.

Decreasing the volume of reinforcing steel purchase orders at PT. KWOSM occurs because of the factors that influence purchase decisions, one of which is the entry

of competitors, resulting in competition in prices and to increase market share in the sale of reinforcing steel.

This fact shows that there is a gap between the projected steel demand in general in Indonesia from 2015 - 2025 with PT. Krakatau Wajatama Osaka Steel Marketing. This condition raises several questions for the author about what factors caused the gap to occur. For primary data collection in this study, the authors have distributed pre-survey questionnaires to 30 respondents from PT. KWSOM and get the results of 3 factors that most influence the decision to purchase reinforcing steel products, namely price (X1), brand image (X2), and quality of service / after sales services (X3).

Price is the value of an item expressed in money (Alma, 2011: 169). This pricing is one of the important decisions for management. The price must be able to cover all costs (including costs) including production costs, machine maintenance, and employee wages or even more than that, which is to get a profit. However, if the price is set too high will result in less profit. In this case the consumer will switch to a competitor's product, the sales volume is reduced, all costs may not be covered and eventually the company will suffer losses.

Table 1. Price Movement of PT. KWOSM and competitors

Month (2018)	PT. KWOSM (Rp/Kg)	PT. MS (Rp/Kg)	PT. Interworld (Rp/Kg)
January	7700	7500	7600
February	7800	7650	7700
March	7600	7400	7550
April	7900	7700	7800
May	8000	7700	7850
June	8100	7800	7900
July	8000	7800	7850
August	8200	7900	8000
September	8300	8000	8100
October	8250	7900	8000
November	8100	7900	8000
December	8300	8000	8150

Source : Internal Data of the Marketing Department of PT. KWOSM



Figure 3. Pre Survey of Factors Affecting Purchasing Decisions

Source: Pre-Survey Data (2019)

Figure 3. shows that 23 out of 30 respondents chose "competitive product prices" is one of the most influential factors on the decision to purchase reinforcing steel products at each respondent's company. As many as 17 out of 30 respondents chose "Trust in a certain brand" is one of the most influential factors in the decision to purchase reinforcing steel products in each respondent's company. As many as 19 out of 30 respondents chose "After sales service" was one of the most influential factors on the decision to purchase reinforcing steel products at each respondent's company.

One of the principles for management in determining this price is to emphasize the willingness of buyers for a price that has been determined with an amount sufficient to cover costs and generate profits (Swastha and Sukotjo, 2007: 211). Price becomes the most factor influence purchasing decisions according to pre-survey results.

Intense and bloody competition in the business of selling steel reinforcement in Indonesia makes consumers have many alternative choices to choose a brand in accordance with consumer desires. Every reinforcing steel product that is produced is usually in accordance with SNI standards and there are also non-SNI ones, just how consumers make that choice. Many factors can influence the purchase decision of reinforcing steel, but in this study the author will measure through factors of price, brand image and service quality (after sales).

Product quality is very influential on product selection decisions stated by Hosseini & Moezzi (2015) that perceived quality is defined as the customer's mental perception of product quality. According to Raharja and Khasanah (2015) the higher the quality of the product, the higher the satisfaction of service users or customers. The better the quality, the more likely the product will be chosen.

Identification of problems. The identification of problems in this study are: (1) The decline in sales of reinforcing steel in February 2018. (2) The decline in sales of reinforcing steel in June 2018. (3) The brand "KS" (PT. Krakatau Steel) shows that there is still no can boost the sales volume of PT. KWOSM despite having a good brand image in the minds of reinforcing steel consumers. (4) The company has not yet taken maximum steps in determining the sales strategy through the policy of determining the selling price, service quality, and positive brand image of PT. Krakatau Wajatama Osaka Steel Marketing.

Research purposes. The purpose of this study are:

(1) To analyze the effect of prices on the purchasing decision of PT. Krakatau Wajatama Osaka Steel Marketing. (2) To analyze the effect of service quality on purchasing decisions of PT. Krakatau Wajatama Osaka Steel Marketing. (3) To analyze the influence of brand image on the purchasing decision of PT. Krakatau Wajatama Osaka Steel Marketing. (4) To analyze the effect of price, service quality, brand image together on the purchasing decision of PT. Krakatau Wajatama Osaka Steel Marketing.

Use of Research. This research is expected to be a reference and additional information for research on similar topics in the future. This research is expected to be an input for reinforcing steel producers in knowing the factors that influence the decision to purchase

reinforcing steel so that they can provide input for correction of marketing strategies in the future.

LITERATURE REVIEW

The purchase decision is one of the stages in the purchase decision process before post-purchase behavior. In entering the stage of the previous purchase decision the consumer is faced with several alternative choices so that at this stage the consumer will take action to decide to buy the product based on the specified choice. The following are some definitions of purchasing decisions according to experts. According to Buchari Alma (2013: 96) states that the purchase decision is as follows:

"Purchasing decisions are consumer decisions that are influenced by financial economics, technology, politics, culture, products, prices, locations, promotions, physical evidence, people and processes. Thus forming an attitude on consumers to process all information and draw conclusions in the form of responses that appear what products will be purchased".

Price according to Kotler and Keller (2016), price is the value of an item or service measured by an amount of money based on that value someone or company is willing to release goods or services that are owned to another party. Loyal customers will also pay attention to the price set for the product they use. According to Kotler and Keller (2012), states that the price dimension consists of: (1) Affordability of prices, the dimensions where prices are flexible and affordable to consumers. (2) Price policy is a dimension where prices are not burdensome and convenience in making payments. (3) Price competitiveness is the dimension where prices can compete competitively. (4) Conformity, which is the dimension where the price matches the benefit.

The price effect provides a new picture of communication and marketing strategies to increase consumer satisfaction. The price formula for satisfaction is widely stated, that there are two principles of the price mechanism, namely the potential to mark the quality of a product. Sales of high-quality products are likely to be characterized by high product quality based on high prices. If the relationship between high cost and high quality known, consumers can expect from high prices that the product is of high quality.

Brand Image. According to Kotler and Keller (2012: 347), brand image has dimensions as below. (1) Excellence of brand association one of the factors forming brand image is product superiority, where the product is superior in competition. (2) The strength of brand associations every valuable brand has a soul, a special personality is a fundamental obligation for brand owners to be able to express, socialize the soul / personality in one form of advertising, or other forms of promotional and marketing activities. That is what will continue to be the link between the product / brand and the customer. thus the brand will be quickly recognized and will be maintained in the midst of rampant competition. Building the popularity of a brand into a famous brand is not easy. However, popularity is one of the keys that can shape brand image to customers. (3) The uniqueness of brand associations is the uniqueness of the product. Based on the definition of experts about the brand, it can be concluded that the brand is a form of identity of a product offered to customers that can distinguish company products from competing products in the form of a name, word, sign, symbol, design, or a combination of all of these things .

After Sales Service (after sales service) is an additional service provided by the company after the sale and purchase transaction. After-sales service comes in a variety of forms and is a vital consumer interest. After-sales service is needed to maintain the good image of the product, trademark and manufacturer or trader in the eyes of the buyer. With this good image, buyers are expected to be willing to buy more products and encourage their families, friends or relatives to buy the goods or services concerned. Because after-sales service functions to maintain the image of products, trademarks and companies, marketing activities should be planned, implemented and monitored properly. According to some after-sales service experts are defined as:

Siswanto Sutojo (2010: 152), stated that after-sales service is a variety of services provided by producers or traders after the product is purchased by the buyer. Some after-sales services are provided free of charge within a certain time limit or product usage limit, for example the kilometer limit for motor vehicle use, some must be paid by the buyer at a reasonable price.

Basu Swastha (2012: 124), after sales service is a service provided by the seller after the sale which can take the form of providing guarantees, repair services, training of professionals and how to use them as well as delivery services to the home.

Prior Research Based on excerpts from previous research journals related to this study, it can be assessed that there are three variables, namely price, brand image and after-sales service that influence purchasing decisions. (1) Dita Amanah (2014) The Effect of Price, Brand Image and After Sales Service on Consumer Purchasing Decisions at PT. Intraco Penta, Tbk Palembang Branch. (2) N. Ragothaman (2017) Influence of Market Stimuli on the Consumer Purchase Decision of Steel. (3) Onigbinde Isaac Oladepo (2015) The Influence of Brand Image And Promotional Mix on Consumer Buying Decision. The results showed that brand image, price feasibility, and after sales service had a significant positive effect on purchasing decisions. (4) M. Sholeh (2016) Effect of Product Quality, Brand Image and After Sales Service on Purchasing Decisions. The results showed that brand image had a major influence on purchasing decisions (5) Nielsen Agustinus Ostenberg Manurung (2014) Analysis of the Effect of Product Quality and After Sales Service on Purchasing Decisions on Honda Motorcycles in Semarang. The results showed the dimensions of product quality and after-sales services simultaneously influence purchasing decisions. (6) Indra Jaya Krisna Gede P (2016) Effects of Brand Image, Product Quality, Price Perception and Word of Mouth on Purchase Interest (Study of Faculty of Economics UNY iPhone Users). The results showed that brand image had a significant positive effect on purchasing decisions. (7) Owusu Alfred (2013) Influences of Price and Quality On Consumer Purchases Of Mobile Phones In The Kumasi Metropolis In Ghana A Comparative Study. The results showed that good price and quality in Ghana significantly influenced purchasing decisions. (8) Henry Susanto (2016) The Effect of Brand Image, Product Quality and Price Toward Purchase Decision. The results showed that price, brand image, product quality had a positive influence on purchasing decisions. (9) Njeru, I. M. (2017) Influence of pricing strategies on consumer purchase decisions: a case of supermarkets in Nairobi County. The results showed that prices have a significant positive effect on purchasing decisions. (10) Oko, A. E. Ndu (2013) After Sales Services and Consumers Perception of Quality: A Study of

Refrigerator Users (Consumers) in South East Nigerias. The results showed that after-sales service has a significant effect on purchasing decisions.

Framework. Based on a summary of previous researches the relationship of price variables to purchasing decisions proposed by Dita Amanah (2014) price, brand image, after-sales service, influence on purchasing decisions, N. Ragothaman (2017) price, the surrounding environment influences purchasing decisions, Onigbinde Isaac Oladepo (2015) brand image, promotion of purchasing decisions, M. Sholeh (2016) product quality, brand image and after sales service for purchasing decisions. Nielsen Agustinus Ostenberg Manurung (2014) product quality, after-sales service influences purchasing decisions. Fredy Wijaya (2016) brand image, price, promotion, influence purchasing decisions, Ivana Hustic (2015) price influences purchasing decisions, Tanjung Mahendra Dwi P (2015) price, quality, risk perception, affect purchasing decisions, Achmad Jamaludin (2015) promotion, price, influence on purchasing decisions, Indra Jaya Krisna Gede P (2016) brand image, product quality, price perception, WOM, influence on purchasing decisions, Meutia Dewi (2016) products, prices, after sales services, affect purchasing decisions, Achmad Iman Rifai (2016) products, after-sales services, influencing purchasing decisions, Ervina Rahayu (2016) brand image, WOM, influencing purchasing decisions, Annisa Ristu Rahmawati (2016) brand image, price, influencing purchasing decisions, Oko, AE Ndu (2013) after sales service, consumer perception, influence on purchasing decisions, Owusu Alfred (2013) price, product quality, influence on dap purchasing decisions Elsa Dwi Nuraini (2014) product quality, price, place, promotion, influence on purchasing decisions, Bima Sinatrya Putra (2011) brand image, after-sales service, affect purchasing decisions, Albari (2018) price influences purchasing decisions, Njeru, IM (2017) price influences purchasing decisions, Hendra (2017) brand image, product quality, influences purchasing decisions, Henry Susanto (2016) brand image, product quality, price, influences purchasing decisions, Syauqi Kessa A (2018) brand image, product attributes, influence purchasing decisions. On the basis of that, the dimensions between the dependent variable and the independent variable in this study that have not been reviewed in previous studies are the independent variables namely price, brand image and after-sale service of reinforcing steel products and the dependent variable, namely the purchasing decision.

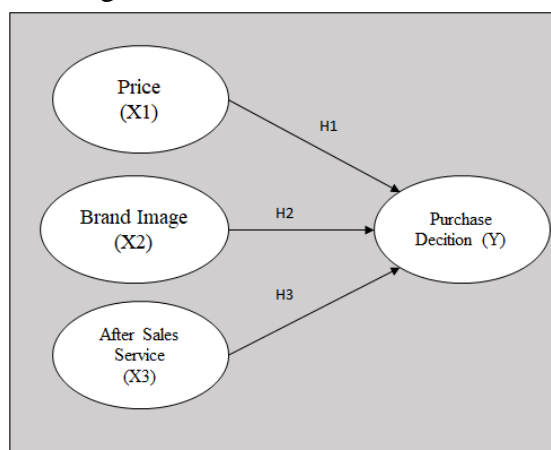


Figure 4. Model of Thinking Framework
Source: Data processed, 2019

RESEARCH METHODS

Research design. This type of research is quantitative verification research with explanatory survey research methods conducted to examine the customer population of PT. Krakatau Wajatama Osaka Steel Marketing with specific customer samples. Data obtained using survey instruments with questionnaires, quantitative data analysis using SEM (Structural Equation Modeling) so that the hypothesis testing influence of independent variables (X) on the dependent variable (Y) that has been set.

Operational Definition and Variable Measurement. In accordance with the above research, the research model and operational research variables are obtained. The variables used in this study consisted of three independent variables and one dependent variable. The variables are as follows. (1) Independent variable or independent variable (X): (X1) = Price, (X2) = Brand Image, (X3) = After Sales Service. (2) Dependent variable or dependent variable (Y): (Y) = Purchase decision.

Population and Sample. The population in this study is the customer of PT. Krakatau Wajatama Osaka Steel Marketing throughout Indonesia which often uses reinforcing steel products. Based on the management information of PT. KWOSM obtained a total of 780 respondents spread throughout Indonesia.

Based on the analysis results obtained a population of 780 people spread across Indonesia. In the study of sampling techniques conducted using probability sampling techniques, namely stratified random sampling. How to take a sample by taking into account the strata / levels in the population. Determination of the sample is based on the Slovin formula with a precision level of 5% so that the number of samples is 265 respondents.

Method of collecting data. The data in this study are primary data obtained from 265 consumers of PT. Krakatau Wajatama Osaka Steel Marketing which uses reinforcing steel products through surveys with a questionnaire and is supported by secondary data obtained from related agencies and sources (websites and print media). The data collection method used is the field research method by reading the literature literature. This method is in the form of secondary data to strengthen primary research data.

Table 2. Consumer Data Recap of PT. KWOSM

No	Segmen	Lokasi	Jumlah	Persentase
1	Distributor	Banten	5	1.89%
2	Kontraktor Swasta	Banten	17	6.42%
3	Kontraktor BUMN	Jawa Barat	8	3.02%
4	Retail	DKI Jakarta	20	7.55%
5	Fabrikator	Jawa Barat	15	5.66%
6	Distributor	Jawa Tengah	32	12.08%
7	Kontraktor Swasta	Jawa Tengah	18	6.79%
8	Kontraktor BUMN	Jawa Tengah	17	6.42%
9	Retail	Jawa Tengah	18	6.79%
10	Fabrikator	Jawa Tengah	21	7.92%
11	Kontraktor Swasta	Jawa Barat	19	7.17%
12	Distributor	Jawa Timur	19	7.17%
13	Kontraktor Swasta	Jawa Timur	11	4.15%
14	Kontraktor BUMN	Jawa Timur	18	6.79%
15	Retail	Jawa Timur	12	4.53%
16	Kontraktor Swasta	Kalimantan	7	2.64%
17	Kontraktor BUMN	Sumatera	8	3.02%
Total			265	100%

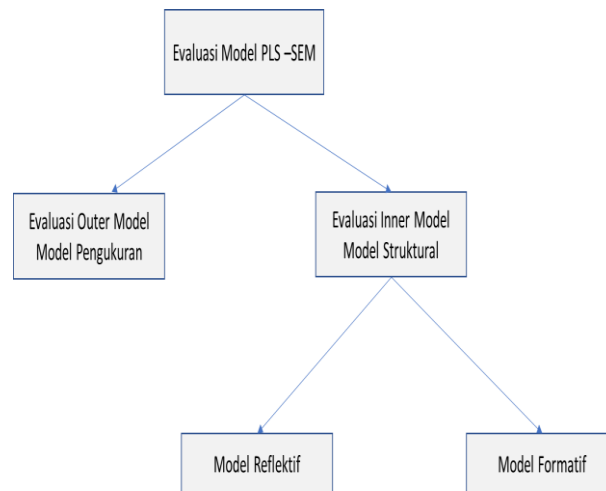
Source: PT. KWOSM (2019)

Table 3. Data Collection

No	Data	Data Type	Data source	Collection Method
1	Primary data	Pre Survey	Project Manager, Purchasing, Retail	Questionnaire survey
2	Secondary Data	Steel Needs, Indicators, Competitive Prices	Katadata, scientific journals, company internal documents	Related website documentation

Source: Data processed (2019)

Data analysis method. (1) Descriptive statistical tests are used for depictions of statistical data such as min, max, mean, and standard deviation to measure data distribution. (2) Model Evaluation in PLS - SEM. According to Haryono (2017) evaluation of the model in PLS consists of 2 stages, namely the evaluation of the outer model or measurement model and the evaluation of the inner model or structural (structural measurement). Evaluations of measurement models are grouped into evaluations of reflective and formative models. Evaluation of PLS - SEM models.

**Figure 5. Model Evaluation of PLS - SEM**

Source : Haryono (2017)

Explanation for evaluation PLS-SEM model, as follows. (1) Evaluation of Measurement Model (Outer Model) is also called outer relation defines how each indicator block relates to its latent variable. (a) Convergent Validity according to Ghozali

and Latan (2015) that Convergent Validity test from each construct indicator. An indicator is valid if the value more than 0.60, and loading factor less than 0.60, it will be dropped from the model. AVE > 0.5 is reliable. (b) Discriminant Validity according to Ghazali and Latan (2015) that discriminant validity relates to the principle of different construct manifesters should not be highly correlated. The method to test cross loading each variable must be > 0.70. Another method to test discriminant validity is compare square root from AVE for each construct with correlation value between construct in the model. (c) Composite Reliability according to Ghazali and Latan (2015) that composite reliability aims to simulate the reliability of instrument. If all latent variable values have composite reliability ≥ 0.6 and Cronbach alpha > 0.6, it means that the construct has good reliability, and reliable or consistent questionnaire.

(2) Structural model or Hypothesis Test (Inner Model) is a development of model based on theoretical concept to analyze the relationship between exogenous and endogenous variable. Inner model test to find R Square value is also called goodness-fit test. Simulation stage, as follows : (a) T-test as hypothesis test in a research. Result/output Smart PLS from Bootstrapping generate T statistic. Indicator that has a T Statistic ≥ 1.96 is valid. Indicator is valid if have P value ≤ 0.05 (Haryono, 2017). (b) Bootstrap method has been developed by Efron (1979) as a tool to help reduce the unreliability related to usage error of normal distribution. In bootstrap made a pseudo data use information and character from original data, so the pseudo data has similar characteristic to original data. In the bootstrap method, sampling from data sample (resampling with replacement) according to Ghazali and Latan (2015). (c) R² (Square Multi Correlation) according to Widarjono (2010) in Haryono (2017) after the parameter significance test and show the significance, the next step is to find variance latent variable value analyze indicator variable. The squared multiple correlation coefficient (R²) to find variance value latent variable analyze indicator. Recommended R² value is 0.67 (strong structural model), 0.33 (moderate structural model) and 0.19 (weak structural model).

FINDINGS AND DISCUSSION

Research result. This study aims to analyze the Effect of Price, Brand Image and After Sales Service on Purchasing Decisions of PT. KWOSM. The data collection process was carried out through the distribution of instruments in the form of research questionnaires to 265 consumer respondents of PT. KWOSM throughout Indonesia that uses Reinforced Steel products.

Characteristic Description of Respondents. Characteristics of the description of respondents in this study are based on the length of work and position of retail respondents or reinforcing steel users related to purchasing decisions using reinforcing steel products.

(1) Description of Respondents Based on Length of Work in the Company.

Table 4. Working Time

Working Time	Number of Respondent	Percentage
< 3 Years	210	79
4 - 7 Years	40	15
8 - 11 Years	10	4

> 11 Years	5	2
Total	265	100%

Source: Data Processing Results (2019)

(2) Description of Respondents Based on Position in the Company.

Table 5. Position

Position	Number of Respondent
Manager Purchasing	5
Staff Purchasing	155
Project Manager	20
Staff Project	85
Total	265

Source: Data Processing Results (2019)

Descriptive Statistics Test Results. Product prices have a minimum value of 17, a maximum of 40, a mean of 30.83 and a standard deviation of 4,956. Brand image has a minimum value of 14, a maximum of 30, a mean of 22,977 and a standard deviation of 3,877, After Sales Service has a minimum value of 14, a maximum of 45, a mean of 33,649 and a standard deviation of 5,412. The Purchase Decision has a minimum value of 22, a maximum of 45, a mean of 35.14 and a standard deviation of 4,985.

Table 6. Descriptive Statistic Test

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Price	265	17	40	30.83	4.956
Brand Image	265	14	30	22.97 7	3.877
After Sales Service	265	14	45	33.64 9	5.412
Decision Purchase	265	22	45	35.14	4.985

Source: Hasil pengujian kuisioner dengan excel, 2019

SEM Analysis Use SmartPLS. This research use SEM analysis and AmartPLS Application version 3.0. Partial Least Square (PLS) is one of alternative method Structural Equation Modeling (SEM) that can be used to solve this problem (Haryono, 2017).

(1) Outer Model Evaluation. Evaluation of measurement model or outer model is to assess the validity and realibility model. Outer model with reflexive indicator by convergent validity and discriminant validity from the indicators and composite realibility for indicator block (Ghozali and Latan, 2015). Simulating for Outer Model Evaluation consists of :

- (a) Validity Test 1. Convergent validity test from each construct indicator according to Chin in Ghozali and Latan (2015), the indicator is valid if outer loading more than > 0.7 .

Table 7. Validity Test I

Variable	Indicator	Outerloading	Description
Price	HP1	0.839	Valid
	HP2	0.835	Valid
	HP3	0.863	Valid
	HP4	0.799	Valid
	HP5	0.842	Valid
	HP6	0.841	Valid
	HP7	0.764	Valid
	HP8	0.436	Not Valid
Brand Image	CM1	0.760	Valid
	CM2	0.657	Not Valid
	CM3	0.776	Valid
	CM4	0.844	Valid
	CM5	0.832	Valid
	CM6	0.802	Valid
After Sales Service	LPJ1	0.772	Valid
	LPJ2	0.785	Valid
	LPJ3	0.545	Not Valid
	LPJ4	0.818	Valid
	LPJ5	0.794	Valid
	LPJ6	0.753	Valid
	LPJ7	0.751	Valid
	LPJ8	0.731	Valid
	LPJ9	0.723	Valid
Decision Purchase	KP1	0.779	Valid
	KP2	0.761	Valid
	KP3	0.732	Valid
	KP4	0.743	Valid
	KP5	0.708	Valid
	KP6	0.794	Valid
	KP7	0.750	Valid
	KP8	0.789	Valid
	KP9	0.508	Not Valid

Source: Hasil Pengujian Kuisisioner dengan SmartPLS versi 3.0,2019

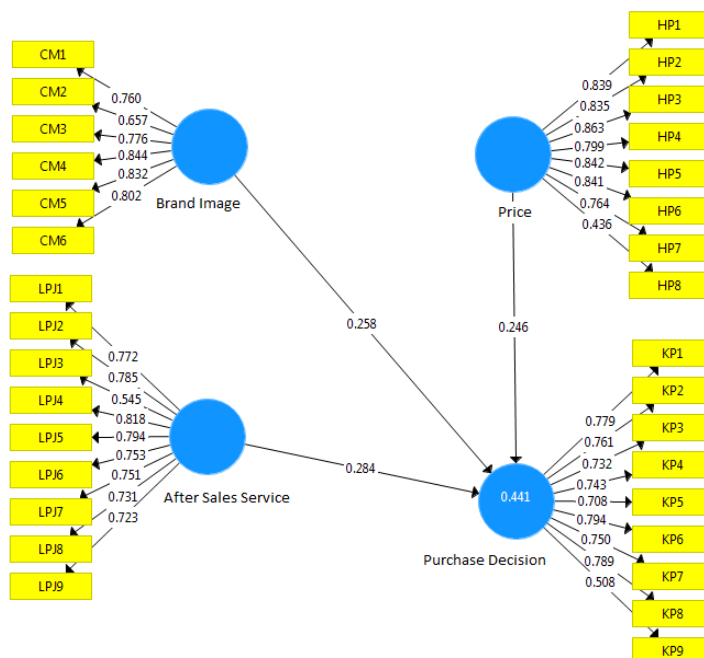


Figure 6. Preliminary Research Model

Source: Hasil Pengujian Kuisisioner dengan SmartPLS versi 3.0,2019

- (b) Average Variance Extracted (AVE) Test I. Another method to assess discriminant validity is compare the square of AVE for each construct with correlation value between constructs in the model. The acceptable AVE value is more than 0.5 (Ghozali and Latan, 2015). Value AVE Product Prices $0.622 > 0.5$ Valid, Brand Image $0.610 > 0.5$ valid, After Sales Service $0.555 > 0.5$ valid, Purchase Decision $0.539 > 0.5$ valid.

Table 8. Result of Average Variance Extracted (AVE) Test I

Variable	Average Variance Extracted (AVE)	Result
Price	0.622	Valid
Brand Image	0.610	Valid
After Sales Service	0.555	Valid
Decision Purchase	0.539	Valid

Source: Hasil Pengujian Kuisisioner dengan SmartPLS versi 3.0,2019

- (c) Discriminant Validity Test I. Discriminant validity shows a construct is completely different from other variables. Discriminant validity from measurement model with reflective indicator that is assessed based on crossloading measurement with construct.

Table 9. Result of Discriminant Validity Test I

	Price	Brand Image	After Sales Service	Decision Purchase
HP1	0.839	0.457	0.598	0.522
HP2	0.835	0.435	0.517	0.405
HP3	0.863	0.457	0.507	0.448
HP4	0.799	0.414	0.501	0.444
HP5	0.842	0.425	0.522	0.429
HP6	0.841	0.428	0.511	0.467
HP7	0.764	0.354	0.427	0.453
HP8	0.436	0.174	0.215	0.254
CM1	0.411	0.76	0.461	0.438
CM2	0.282	0.657	0.34	0.35
CM3	0.354	0.776	0.402	0.362
CM4	0.467	0.844	0.51	0.471
CM5	0.396	0.832	0.476	0.448

	Price	Brand Image	After Sales Service	Decision Purchase
CM6	0.448	0.802	0.451	0.459
LPJ1	0.45	0.478	0.772	0.477
LPJ2	0.463	0.486	0.785	0.489
LPJ3	0.357	0.52	0.545	0.409
LPJ4	0.505	0.464	0.818	0.467
LPJ5	0.504	0.417	0.794	0.416
LPJ6	0.447	0.291	0.753	0.356
LPJ7	0.435	0.405	0.751	0.391
LPJ8	0.432	0.341	0.731	0.423
LPJ9	0.521	0.366	0.723	0.431
KP1	0.39	0.398	0.413	0.779
KP2	0.41	0.346	0.38	0.761
KP3	0.41	0.38	0.414	0.732
KP4	0.395	0.434	0.468	0.743
KP5	0.422	0.369	0.449	0.708
KP6	0.43	0.42	0.5	0.794
KP7	0.404	0.418	0.388	0.75
KP8	0.419	0.405	0.427	0.789
KP9	0.348	0.407	0.374	0.508

Source: Hasil Pengujian Kuisioner dengan SmartPLS versi 3.0, 2019

- (d) Reliability Test I. According to Ghazali and Latan (2015) composite reliability test aims to simulate instrument reliability in a research model. If all latent variable values have composite reliability value > 0.6 and cronbach's alpha > 0.6 . All variables in this research model are reliable because composite reliability value > 0.6 . All variables in this research model are reliable because cronbach's alpha value > 0.6 (Ghozali and Latan, 2015).

Table 10. Result of Composite Reliability Validity Test I

Variable	Composite Reliability	Result
Price	0.927	Reliable
Brand Image	0.903	Reliable
After Sales Service	0.917	Reliable
Decision Purchase	0.912	Reliable

Source: Hasil Pengujian Kuesioner dengan SmartPLS versi 3.0, 2019

Table 11. Result of Cronbach's Alpha Validity Test I

Variable	Cronbach Alpha	Result
Price	0.907	Reliable
Brand	0.871	Reliable
Image		
After Sales	0.898	Reliable
Service		
Decision	0.890	Reliable
Purchase		

Source: Hasil Pengujian Kuesioner dengan SmartPLS versi 3.0, 2019

- (e) Validity Test II. All indicators have outer loading $> 0,7$. An indicator is valid if the value is more than 0,7.

Table 12. Result of Validity Test II

Variable	Indicator	Outerloading	Description
Price	HP1	0.848	Valid
	HP2	0.838	Valid
	HP3	0.876	Valid
	HP4	0.806	Valid
	HP5	0.841	Valid
	HP6	0.839	Valid
	HP7	0.755	Valid
Brand	CM1	0.773	Valid
	CM3	0.771	Valid
	CM4	0.864	Valid
	CM5	0.848	Valid
	CM6	0.801	Valid
	Image	LPJ1	0.746
After Sales Service	LPJ2	0.761	Valid
	LPJ4	0.826	Valid
	LPJ5	0.808	Valid

Variable	Indicator	Outerloading	Description
	LPJ6	0.778	Valid
	LPJ7	0.775	Valid
	LPJ8	0.757	Valid
	LPJ9	0.738	Valid
	KP1	0.798	Valid
Decision Purchase	KP2	0.781	Valid
	KP3	0.748	Valid
	KP4	0.736	Valid
	KP5	0.734	Valid
	KP6	0.802	Valid
	KP7	0.744	Valid
	KP8	0.766	Valid

Source: Hasil Pengujian Kuesioner dengan SmartPLS versi 3.0, 2019

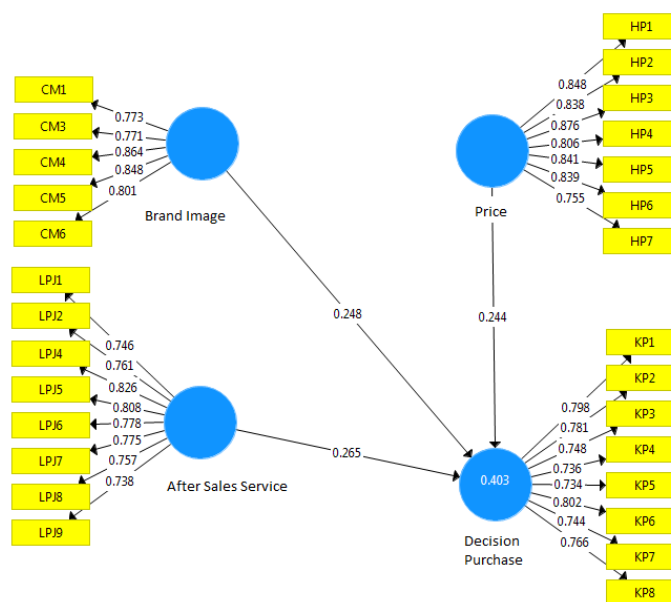


Figure 7. Validity Test 2

Source: Hasil Pengujian Kuesioner dengan SmartPLS versi 3.0, 2019

- (f) Average Variance Extracted (AVE) Test II. Another method to assess discriminant validity is compare the square of AVE for each construct with correlation value between constructs in the model. The acceptable AVE value is more than 0.5 (Ghozali and Latan, 2015). AVE value of Price is valid $0.689 > 0.5$, Brand Image is valid $0.659 > 0.5$, After Sales Service is valid $0.600 > 0.5$, and Decision Purchase is valid $0.584 > 0.5$.

Table 13. Result of Average Variance Extracted (AVE) Test II

Variable	Average Variance Extracted (AVE)	Result
Price	0.689	Valid
Brand Image	0.659	Valid
After Sales Service	0.600	Valid
Decision Purchase	0.584	Valid

Source: Hasil Pengujian Kuisisioner dengan SmartPLS versi 3.0,2019

- (g) Discriminant Validity Test II. Discriminant validity shows a construct is completely different from other variables. Discriminant validity from measurement model with reflective indicator that is assessed based on crossloading measurement with construct. Be expected that measurement result of each latent variable compared to its indicator for other latent variables (Ghozali and Latan, 2015).

Table 14. Result of Discriminant Validity Test II

	Price	Brand Image	After Sales Service	Decision Purchase
HP1	0.848	0.461	0.592	0.514
HP2	0.838	0.45	0.517	0.401
HP3	0.876	0.472	0.496	0.438
HP4	0.806	0.417	0.481	0.441
HP5	0.841	0.43	0.523	0.411
HP6	0.839	0.424	0.496	0.451
HP7	0.755	0.353	0.434	0.428
CM1	0.417	0.773	0.423	0.43
CM3	0.352	0.771	0.385	0.33
CM4	0.469	0.864	0.484	0.449
CM5	0.397	0.848	0.458	0.421
CM6	0.455	0.801	0.411	0.447
LPJ1	0.45	0.469	0.746	0.47
LPJ2	0.464	0.484	0.761	0.479
LPJ4	0.506	0.466	0.826	0.45
LPJ5	0.504	0.408	0.808	0.394
LPJ6	0.45	0.291	0.778	0.338

	Price	Brand Image	After Sales Service	Decision Purchase
LPJ7	0.443	0.408	0.775	0.366
LPJ8	0.441	0.359	0.757	0.42
LPJ9	0.523	0.376	0.738	0.421
KP1	0.383	0.398	0.402	0.798
KP2	0.413	0.334	0.383	0.781
KP3	0.41	0.372	0.41	0.748
KP4	0.392	0.439	0.442	0.736
KP5	0.425	0.379	0.414	0.734
KP6	0.429	0.421	0.474	0.802
KP7	0.4	0.41	0.383	0.744
KP8	0.411	0.391	0.421	0.766

Source: Hasil Pengujian Kuesioner dengan SmartPLS versi 3.0, 2019

Obtained that the value of cross loading of each item to the construct is greater than the value of loading with other constructs.

- (h) Reliability Test II. According to Ghazali and Latan (2015) composite reliability test aims to simulate instrument reliability in a research model. If all latent variable values have composite reliability value > 0.6 and cronbach's alpha > 0.6 , it means that the construct has good reliability and reliable or consistent questionnaire.

Table 15. Result of Composite Reliability Validity Test II

Variable	Composite Reliability	Result
Price	0.939	Reliabel
Brand Image	0.906	Reliabel
After Sales Service	0.923	Reliabel
Decision Purchase	0.918	Reliabel

Source: Hasil Pengujian Kuesioner dengan SmartPLS versi 3.0, 2019

Table 16. Result of Cronbach's Alpha Validity Test II

Variable	Cronbach Alpha	Result
Price	0.924	Reliabel
Brand Image	0.871	Reliabel

After Service	Sales	0.905	Reliabel
Decision Purchase		0.898	Reliabel

Source: Hasil Pengujian Kuesioner dengan SmartPLS versi 3.0, 2019

(2) Inner Model (Structural Model). Inner model test is development of model concept based and theory based to analyze the relationship of exogenous and endogenous variable which have been described in a conceptual (Ghozali and Latan, 2016). Inner model test, as follows :

(a) R Square (R²). R² value is 0.359 which mean that part of moderate category.

Table 17. R² Value Each Variable

Variabel	R ²	Description
Decision Purchase	0.403	Reliabel

Source: Hasil Pengujian Kuesioner dengan SmartPLS versi 3.0, 2019

(b) Effect Size (F²). Effect Size (f²) value to evaluate whether without an exogenous variable has a substantive effect on the endogenous variable. F² value is 0.02, 0.15, and 0.35 can be interpreted whether the latent variable predictor has small, medium, and large influence in the structural level according to Chin (1998) in Ghozali and Latan (2015). Price, Brand Image and After Sales Service have 0.057, 0.068 and 0.066 which have small effect on Decision Purchase.

Table 18. Effect Size (F²) Value

Exogenous Variable	Endogenous Variable	Effect Size	Description
Price	Decision	0.05	Small
	Purchase	7	
Brand Image	Decision	0.06	Small
	Purchase	8	
After Sales Service	Decision	0.06	Small
	Purchase	6	

Source: Hasil Pengujian menggunakan SmartPLS versi 3.0, 2019

(c) Result of Predictive Relevance (Q²). Q-square indicates how the observation value produced by the model and also the estimated parameters. Range of Q² value is $0 < Q^2 < 1$, getting closer to 1 that means the model is getting better. Q² is equivalent to coefficient of total determination in path analysis. $Q^2 > 0$ indicates the model has predictive relevance, otherwise if the Q² value ≤ 0 indicates the model lacks predictive relevance. Q-Square = $1 - [(1-R^2)] = 1 - [1-0.403] = 1 - 0.591 = 0.403$. Q-Square is 0.403.

This shows that the diversity of research data is 40.3% and 59.1% and others is not explained in this research.

(d) Hypothesis test. Hypothesis test use t-statistic coefficient. Input/output of bootstrapping is t-statistic. Indicator that has a t-statistic > 1.96 , means significant (Ghozali and Latan, 2015). Indicator is called influential if p-value < 0.05 (Haryono, 2017).

Table 19. Hypothesis Test

<i>Path</i>	<i>Original Sample (O)</i>	<i>Sample Mean (M)</i>	<i>Standard Deviation (STDEV)</i>	<i>T Statistics ((O)/STDEV)</i>	<i>P Values</i>	<i>Result</i>
Price -> Decision Purchase	0.248	0.248	0.065	3.841	0	Significant
Brand Image -> Decision Purchase	0.244	0.249	0.074	3.284	0.001	Significant
After Sales Service -> Decision Purchase	0.265	0.265	0.072	3.662	0	Significant

Source: Hasil Pengujian menggunakan SmartPLS versi 3.0, 2019

Result of Hypothesis test the research model: Hypothesis 1 Price to Decision Purchase, Price has t-statistic $3.841 > 1.96$, p-value $0.000 < 0.05$ and original sample 0.248, so H1 is accepted, meaning that Product Prices have a positive and significant effect on Purchasing Decisions. Hypothesis 2: Brand Image on Purchasing Decisions, Brand Image has a t-statistic value of $3.284 > 1.96$, p-value of $0.001 < 0.05$ and original sample of 0.244, then H2 is accepted, meaning that Brand Image has a positive and significant effect on Purchasing Decisions. Hypothesis 3 After Sales Service Against Purchase Decisions, After Sales Service has a t-statistic value $3,662 > 1.96$, p-value $0,000 < 0.05$ and original sample 0.265 then H3 is accepted, meaning After Sales Service has a positive and significant effect on Purchasing Decisions.

Discussion of Research Result

(1) Effect of Product Prices on Purchasing Decisions

The product price has a t-statistic value $3,841 > 1.96$, p-value $0,000 < 0.05$ and the original sample is 0.248, then H1 is accepted, meaning that the product price has a positive and significant effect on the Purchasing Decision. This means that if the price level of the product is in accordance with the wishes of the customers, then it causes a significant increase in Purchasing Decisions.

(2) The Effect of Brand Image on Purchasing Decisions

Brand Image has a t-statistic value of $3.284 > 1.96$, p-value of $0.001 < 0.05$ and original sample of 0.244, then H2 is accepted, meaning that Brand Image has a positive and significant effect on Purchasing Decisions. This means that if the Brand Image increases, then it causes a significant increase in Purchasing Decisions.

(3) Effect of After Sales Service on Purchasing Decisions

After Sales Service has a t-statistic value $3,662 > 1.96$, p-value $0,000 < 0.05$ and original sample 0.265 then H_2 is accepted, meaning After Sales Service has a positive and significant effect on Purchasing Decisions. This means that if After Sales Service increases, it will cause a significant increase in Purchasing Decisions.

CONCLUSION AND SUGGESTION

Conclusion. This research is intended to determine the effect of product prices, brand image and after-sales service on purchasing decisions in using Reinforcing Steel products of PT. Krakatau Wajatama Osaka Steel Marketing. Based on the data analysis and discussion that has been done in the previous chapter, it can be stated some conclusions of this study as follows.

- (1) The price of the product has a positive and significant effect on the decision to purchase the product of PT. Krakatau Wajatama Osaka Steel Marketing.
- (2) Brand image has a positive and significant influence on purchasing decisions for PT. Krakatau Wajatama Osaka Steel Marketing.
- (3) After-sales service has a positive and significant effect on the decision to purchase PT. Krakatau Wajatama Osaka Steel Marketing.

Suggestion. From the results of the analysis of the discussion and conclusions previously explained, it can be made the following research suggestions. Related to the above, the writer has several suggestions to improve purchasing decisions as follows.

- (1) Product prices have a significant positive effect on purchasing decisions. The strongest relationship is that the price dimension does not burden the customer. Suggestions for companies while maintaining price competitiveness against competitors by not reducing the quality of products to maintain customer satisfaction so that a positive impact on purchasing decisions.
- (2) Brand image has a significant positive effect on purchasing decisions, advice for companies on the brand dimension is easy to remember is to conduct and expand socialization / branding to consumers and prospective consumers about the quality and strength of PT. Krakatau Wajatama Osaka Steel Marketing.
- (3) After sales service has a significant positive effect on purchasing decisions. Suggestions for companies on the dimensions of ease and speed in obtaining supporting documents is to improve and be consistent with customer service regarding the ease and speed in obtaining supporting documents for Steel Products of PT. Krakatau Wajatama Osaka Steel Marketing.

REFERENCES

- Hustic, Ivana dan Gregurec, Iva. 2015. "The Influence of price on consumer's purchase decision". Central European Conference on Information and Intelligent Systems. Faculty of Organization and Information, September 23-25, 2015 Pp. 27-32.
- Oladejo, Onigbinde Isaac dan Abimbola, Odunlami Samuel. 2015. The Influence of Brand Image and Promotional Mix on Consumer Buying Decision- A Study of Beverage Consumers In Lagos State, Nigeria. British Journal of Marketing Studies, Vol. 3, No. 4 Pp. 97-109, May 2015.

- Kotler, Philip dan Kevin Lane Keller. (2012). *Manajemen Pemasaran*. Erlangga. Jakarta.
- Kotler, Philip dan Kevin Lane Keller. (2016). *Marketing Managements*. Erlangga. Jakarta.
- Kotler, Philip dan Gary Armstrong. (2013). *Prinsip-prinsip Pemasaran. Jilid 1 (Edisi 13)*. Jakarta.
- Alfred, Owusu. (2013). "Influences of Price and Quality On Consumer Purchase Of Mobile Phone In The Kumasi Metropolis In Ghana A Comparative Study". *European Journal of Business and Management ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.5, No.1, 2013*.
- Amanah, Dita. (2014). "Pengaruh Harga, Citra Merek, Dan After Sales Service (Layanan Purna Jual) Terhadap Keputusan Pembelian Konsumen Pada PT. Intraco Penta,Tbk Cabang Palembang". *Jurnal Quonomic Vol . II No. 01 - April 2014 | ISSN 2339-2037*.
- Ndu, OKO A E. (2013). "After-Sales Services and Consumers Perception of Quality : A Study of Refrigerator Users (Consumers) in South East Nigeria". *Business and Management Horizons ISSN 2326-0297 2013, Vol. 1, No. 2*.
- Evita, Nurul. (2017). "The Influence Of Brand Image Toward Purchasing Decision (Study Case At Bakso Boedjangan Burangrang Bandung In 2017)". *ISSN : 2442-5826 e- Proceeding of Applied Science : Vol.3, No.2 Agustus 2017 | Page 430*
- Vahdatmanesh, Mohammad dan Afshin. (2018). "Price Risk Management in BOT Railroad Construction Projects Using Financial Derivatives". *Journal of Financial Management of Property and Construction, Vol. 23 Issue: 3, pp.349-362*
- Krisna Hadi, Ryan. (2013). "Pengaruh Keunggulan Produk Terhadap Minat Beli Konsumen Pada Produk Rangka Atap Baja Ringan TASO C75.75". *JURNAL SAINS PEMASARAN INDONESIA Volume XII, No. 3, Desember 2013, halaman 346 – 356*
- Jasmani. (2018). "Pengaruh Kualitas Produk dan Harga Terhadap Keputusan Pembelian Pada PT. Baja Mandiri Di Jakarta". *ISSN 2621 – 797X Jurnal Disrupsi Bisnis, Vol. 1, No. 1, Juli 2018 (113 - 134)*
- N Jena, Nitin Seth, (2016) "Factors influencing logistics cost and service quality: a survey within the Indian steel sector", *Industrial and Commercial Training, Vol. 48 Issue: 4, pp.199-207*
- Yi- Min Chen, Yi- Fan Su, (2011) "Do country- of- manufacture and country- of- design matter to industrial brand equity?", *Journal of Business & Industrial Marketing, Vol. 27 Issue: 1, pp.57-68*
- Kotler, Philip dan Waldemar Pfoertsch, (2007) "Being known or being one of many: the need for brand management for business- to- business (B2B) companies", *Journal of Business & Industrial Marketing, Vol. 22 Issue: 6, pp.357-362*
- N. Ragothaman dan S. Vasantha, (2018). "Purchase Decision of Customers of Steel - Tamil Nadu", *International Journal of Supply Chain Management, Vol. 7 No. 5 October 2018*
- N. Ragothaman dan S. Vasantha, (2017). "Influence Of Market Stimuli On The Consumer Purchase Decision Of Steel", *Journal of Advanced Research in Dynamical and Control Systems Vol. 9. Sp- 14 / 2017*
- Mariana, Floricica, (2015). "Consumer Response to Product and Service Quality", *Procedia - Social and Behavioral Sciences 187 (2015) 526 – 531*
- M Shivalingegowda, (2013). "Consumer Attitude Towards After Sales Service", *IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 13, Issue 6 (Sep. - Oct. 2013), PP 14-20*.

- Peter, Paul J dan Olson Jerry C (2002). *Consumer Behavior & Marketing Strategy: Perilaku Konsumen dan Strategy Pemasaran*. Jakarta
- Paramananda, N. (2018). "The Impact of Price Perception and Brand Image on Customer Satisfaction and Repurchase Intention". *International Journal of Economics, Commerce and Management*, Vol.VI, No.10.
- Kotler, Philip dan Kevin Lane Keller. (2012). *Manajemen Pemasaran*. Erlangga. Jakarta.
- Kotler, Philip dan Kevin Lane Keller. (2016). *Marketing Managements*. Erlangga. Jakarta.
- Kotler, Philip dan Gary Armstrong. (2013). *Prinsip-prinsip Pemasaran*. Jilid 1 (Edisi 13). Jakarta.
- Neupane, Ramesh. (2015). "The Effects of Brand Image on Customer Satisfaction and Loyalty Intention in Retail Super Market Chain UK". *International Journal of Social Sciences and Management (IJSSM)*, Vol.2, No.1.
- Tee, Daniel Kasser; Alex Preko, dan Evans Tee. (2018). "Understanding the Relationships Between Service Quality, Customer Satisfaction and Loyalty: An Investigation of Ghana's Retail Banking Sector". *British Journal of Marketing Studies*, Vol.6, No.2.