Customer Loyalty of Medical Equipment User at Private Hospitals in West Java: Material Teaching of Marketing Learning for Undergraduate Student

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Abstract: The descriptive research was done to elaborate the effect of Product Quality, Perceived Price, and Relationship Marketing towards Customer Value. Multi-Stage Sampling and Proportional Random Sampling were used as a sampling technique to have 200 respondents as samples. Structural Equation Modelling (SEM) was used as a data analysis tools in this research using Lisrel' Program 8.30. The research result describes the Customer value of Medical Equipment of Private Hospital in West Java is affected by Product Quality Variable, Price Perceived, as well as Relationship Marketing. Meanwhile, the Customer Loyalty of Used Medical Equipment of Private Hospital in West Java can be increased through the Customer Value Variable. Valorisations of research results has been done through the development of teaching materials for marketing lecture of the undergraduate program. Based on data analysis derived from a questioner, the material teaching gave a high contribution to the enhancing of students' knowledge of marketing strategy.

1 INTRODUCTION

From year to year, medical devices circulating in Indonesia remain dominated by imported products and the contribution of domestic medical equipment industry contributes only 20%, out of the total annual requirement of about Rp12 trillion in 2013. Fulfilment of domestic medical equipment products can reach 45% if the government siding with the growth of the domestic industry. Consumers who are the majority of the government prefer imported products, although the supporting component is in Indonesia. According to General Chairman of Indonesian Medical Device and Laboratory Association (Gakeslab), domestic products can compete with imported products. It's just that the problem of cheaper prices and some stigma about the quality of local goods become obstacles (Issetiabudi, 2014)

This aspect is not owned by local health equipment manufacturers so it needs to be facilitated by the government. It is said, the average local artificial health equipment meets the level of domestic content between 50% -60%, such as beds, cabinets, and operating table. However, products

such as syringes are still dependent on imported raw materials so that local content has not reached 50% (Business News, 2014).

Another phenomenon occurs precisely. On the other hand, local products are in demand by the foreign market share. Based on data in the Ministry of Health shows that exports from the health appliance industry in 2014 reached $ 750 Million, with a growth of 10% per year. Indonesia's trade relations with the UAE increased by 31.79% over the January-October 2014 period of US $ 3.57 billion compared to the same period of the previous year. This indicates that the medical equipment of Indonesian production can be accepted overseas. In the future, it is necessary to make some improvement through the research to produce innovative tools which have local and global competitiveness (Kemenkes, 2015).

One of the factors causing the decrease of repurchase of local health equipment is the quality of health equipment product in Indonesia itself. It is still the fact, that many of those have not fulfilled the standard so they cannot compete with import products in Indonesia through BSN (National Standardization Body). Technical Committee from

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The Ministry of Health has adopted the IEC 60601 standard into SNI IEC 60601-1: 2014. This standard of health equipment is still voluntary in practice, as other health-care standards. Currently, Indonesia through the Ministry of Health as a regulator has conducted the control of health equipment with several mechanisms, especially the need for harmonization with existing regulations at the ASEAN level (LIPI, 2015).

Registration for the distribution of medical devices in Indonesia until now is still limited for the examination, and the devices have not yet certified. To be able to operate, healthcare manufacturers must pass the certification processes. In total, there are 72 health equipment companies in the country. Although the market share of local healthcare manufacturers in the country alone is only 6% businessmen in this sector have penetrated the global market. It is generally only at the stage of export of health equipment components. Then manufactured abroad then sold again to Indonesia with an added value higher. Gakeslab reveals the utilization of health equipment manufacturers about 70% -80%. (Issetiabudi, 2014). These facts and descriptions form the basis for research on "The Influence of Product Quality, Price Perception and Relationship Marketing on Customer Value and Its Implication on Customer Loyalty to Users of Domestic Products of Medical Devices in Private Hospital Type C West Java." It is important to estimate and expose the customer's desire to know the factors that cause the customer is satisfied and become loyal and willing to re-buy again.

This research is intended to analyse factors that influence the increase of customer loyalty to the products in the country of health equipment in the province of West Java. The analysis is directed to the factors that cause the increasing customer loyalty. In addition, it has also been studied how far the results of this research can be utilized as teaching materials in marketing lectures for undergraduate students.

2 THEORETICAL FRAMEWORK

Product quality can be interpreted as the product offered by the seller has more selling value than the competitor's product (Albrecht, 1995). Therefore every company tries to focus on product quality and compare it with the products offered by the competitor company. However, a product with the best performance or even a better look is not the highest quality product if it is not what the market

wants and wants. For more details here is an explanation of the quality of the product according to some experts.

Quality by Kotler and Keller (2007) "Quality is the whole style and characteristics of a product or service that supports an ability to satisfy customers either directly or indirectly.

According to Kotler and Armstrong (2012) Product quality is expressed as follows: "Product quality means the ability of a product to perform its function: it's includes the product's overall durability, reliability, precision, ease of operation and repair, and other valued attributed "Means the quality of the product is the ability of the product to perform its functions, including the ability to survive, reliable circumstances, accuracy, ease of use and improvement, and other attributes.

Customer loyalty is not formed in a short time but through the learning process and based on the customer's own experience from consistent purchasing over time. If the obtained is in accordance with expectations, then this purchase process continues to repeat. It can be said that customer loyalty has arisen. If from his experience, the customer does not get a satisfactory brand then he will not stop to try the other brands until he gets a product or service that meets their criteria. For more details, here is an explanation of customer loyalty

Furthermore, Griffin (2007) argues "A loyal customer is one who makes repeat purchases across product and service liner, refer others and demonstrates an immunity to the pull of the competition." A customer is said to be loyal or loyal if the customer shows the behaviour purchase on a regular basis or there is a condition where the customer requires to buy at least two times in a certain time by some decision-making unit. Attempts to provide customer satisfaction are made to influence customer attitudes, while customer loyalty is more concerned with customer behaviour than customer attitudes.

3 METHODS

Based on the theoretical framework and the results of previous research, it can be made the concept of this study can be illustrated systematically can see in figure 1:
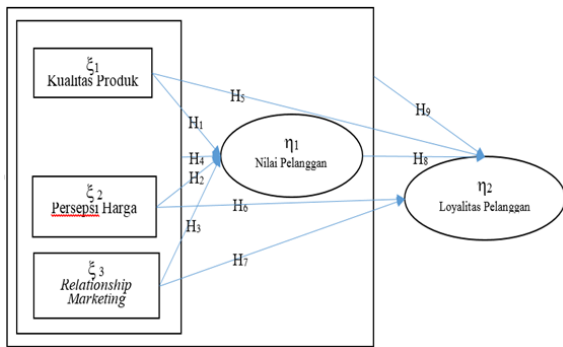
Figure 1: Research Constellation.

3.1 Model Structure Analysis

After analyzing the level of test dimensionality of the forming indicators of each latent variables with 2nd CFA test, then further tested the suitability of the model structure tested. For this purpose, the
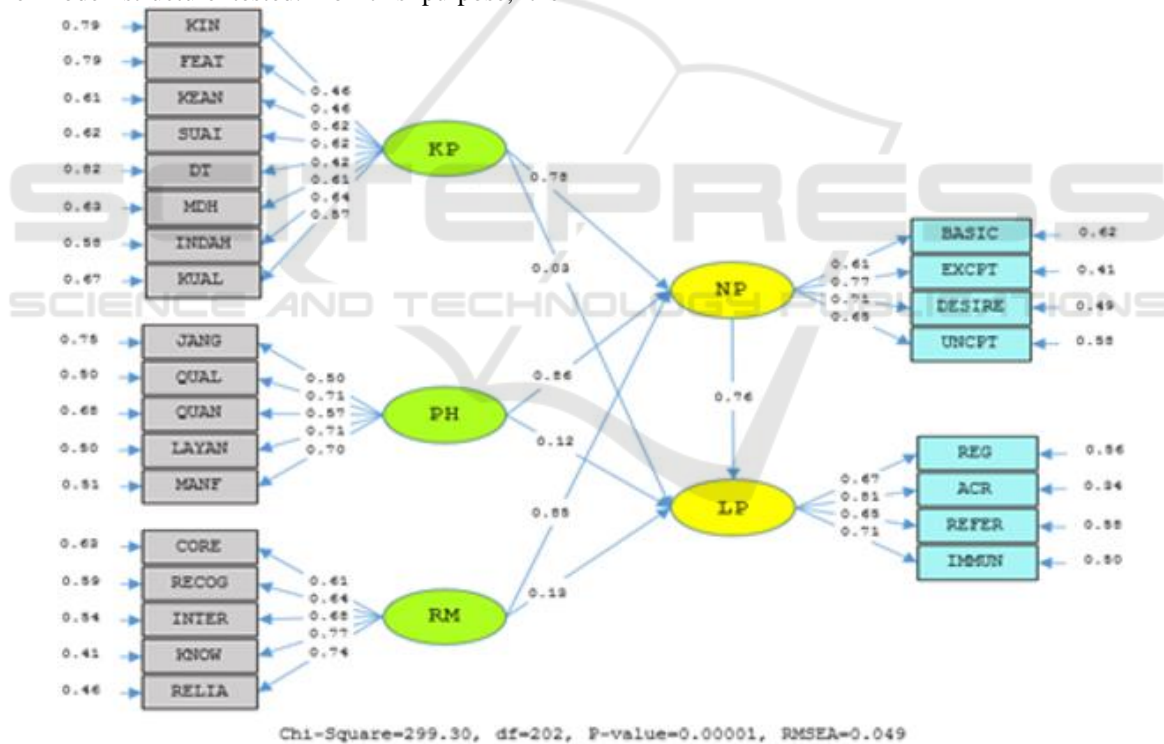
value of each indicator is observed in every average dimension, so that the average score of each dimension in each variable used for the next analysis is obtained. Based on the above three inspection results, it can be concluded that the result of factor load estimation from the model is good.

3.2 Analysis of Structural Equations and Hypothesis Testing

Based on the research objectives, namely to determine the effect of Product Quality, Price Perception, Relationship Marketing to Customer Value and Customer Loyalty as in the paradigm research chart.

A full model of the SEM equation using LISREL 8.30 derives two trajectory models, namely the standardized model and the t-values model, as shown in each of the following figure 2.

Figure 2: Standardized Loading Factor.

4 RESULTS AND DISCUSSION

The relationship between research variables then obtained the results of estimation and the results of testing the significance of latent variables and the path between latent variables. The coefficient and t

values are presented in Table 5.48. If the structural trajectory has a value of $t \geq 1.96$, then the coefficient of the path is significant, and if the value of $t < 1.96$, or the F-value <F-table, the coefficient of the path is not significant. This research has nine hypotheses tested. The full results of the test of each hypothesis can be seen in Table 1.

Table 1: Hypothesis Testing Result.

Hypothesis	Description	*Standardized Loading Factor*/R^2	t-*value*/ F-*value*	Notes
H1	Quality Product → Customer Value	0,78	23,92	Reject H_0 Accept Ha Significant
H2	Price Perception → Customer Value	0,86	24,74	Reject H_0 Accept Ha Significant
H3	*Relationship Marketing/* Customer Value	0,85	27,55	Reject H_0 Accept Ha Significant
H4	Quality Product, Price Perception, *Relationship Marketing* → Customer Value	0,814	291,27	Reject H_0 Accept Ha Significant
H5	Quality Product → Customer Loyalty	0,03	0,83	Reject H_0 Accept Ha Significant
H6	Price Perception → Customer Loyalty	0,12	2,95	Reject H_0 Accept Ha Not Significant
H7	*Relationship Marketing* → Customer Loyalty	0,13	3,18	Reject H_0 Accept Ha
H8	Price Perception → Customer Value	0,76	9,27	Reject H_0 Accept Ha Significant
H9	Quality Product, Price Perception, *Relationship Marketing*, Customer Value → Customer Loyalty	0,82	218,66	Reject H_0 Accept Ha Significant

Based on the results of data analysis obtained t $_{value}$> t $_{table}$. This means the hypothesis that the Product Quality has a significant effect on the acceptable Customer Value. The coefficient of determination $R_2 = 0,609$ indicate that contribution of Quality of Product to increase Value of Customer equal to 60,9%, and the rest 39,1% influenced by another variable not examined. Conclusion based on hypothesis testing 1 (one) which states there is a positive and significant impact of product quality on customer value of health equipment users in West Java.

Based on the results of data analysis obtained t $_{value}$> t $_{table}$. This means that the hypothesis that the Price Perception has a significant effect on Customer Value is acceptable. The coefficient of determination $R_2 = 0.636$ indicates that the contribution of Price Perception to the increase of Customer Value is 63,6% and the rest 36,4% influenced by other variables that are not examined. Conclusion based on hypothesis testing 2 (two) which states there a positive influence and significant perception of price to customer value of health appliance user in West Java.

Based on the data analysis, the result that t $_{value}$> t$_{table}$. This means the hypothesis that Affirm Relationship Marketing is significant and significant to the acceptable Customer Value. The coefficient of determination $R_2 = 0,647$ this result indicate that contribution of Relationship Marketing to increase of Customer Value equal to 64,7%, and the rest 35,3% influenced by another variable not examined. Conclusion based on hypothesis testing 3 (three) which states there are positive influence and significant Relationship Marketing to Customer Value of health equipment users in West Java.

Based, the significance test is done by the F test, at the level of $\alpha = 0.05$ shows the entire value of F arithmetic of 291.27 is greater than F table (3: 197) = 2.65. The results of data analysis obtained that the F $_{value}$ > F $_{table}$ Thus H_0 rejected and H_1 accepted, this means the hypothesis that there is a significant influence of product quality, Price Perception, and Relationship Marketing together towards the Customer Value. The coefficient of determination R_2 = 0.814 this result indicates that the contribution of product quality, Price Perception, and Relationship Marketing together towards the increase of Customer Value of 81,4%, and the remaining 18,6%

influenced by another variable not examined. Conclusion based on hypothesis testing 4 (four) states that there are a positive and significant influence of Product Quality, Price Perception, and Relationship Marketing together towards the Value of Healthcare Users Customer in West Java.

Based on the results of data analysis obtained that $t_{value} < t_{table}$, the test results significance is done by t-test, at the level of $\alpha = 0.05$, shows the value of t count is $0.83 < 1.96$. This means that Product Quality variable does not have a significant influence on Customer Loyalty. Conclusion based on hypothesis testing 5 (five) which states positive influence of product quality (but not significant) to customer loyalty of health equipment user in West Java.

Based on the data analysis, the result of data analysis shows that $t_{value} < t_{table}$. The significance test is done by t-test, at $\alpha = 0,05$ and the t-count value is $2,95 > 1,96$. This means that the hypothesis is accepted, the Price Perceptions significantly give the effect on Customer Loyalty. Moreover, the Price Perception variable has a positive and significant influence on Customer Loyalty. The coefficient of determination $R_2 = 0.623$, indicates that the contribution of Price Perception to the increase of Customer Loyalty is 62.3%, and the rest 37,7% influenced by another variable which is not examined. The conclusion based on hypothesis testing 6 (six): there are a positive influence and significant perceptions of the price of customer loyalty users of health equipment in West Java.

Based on the data analysis, the F_{value} is found $> F_{table}$. This means that there are a significant effect of Product Quality, Price Perception, and Relationship Marketing together against Customer Value. The coefficient of determination $R_2 = 0.818$ indicates that the contribution of Product Quality, together with Price Perception and Relationship Marketing show the 81.8% increase in Customer Value, and the remaining 18.2% influenced by other un-researched variables. It can be concluded that Customer Loyalty influenced positively and significantly affected by Product Quality, Price Perception, Relationship Marketing, and Customer Value. Nevertheless, the Customer Value is the most dominant influence on Customer Loyalty. The variable quality is not a significant variable in customer loyalty. From all of aspects, it can be concluded that based on the quality, the customer of health equipment is categories as Type C for Private Hospital in West Java.

All of the research result has already used as a material for teaching marketing strategy in undergraduate student of Management program. They asked to use the material as a resource. After the course, most of student said that the research result is very valuable to enhance their knowledge as well as they become more understanding, how to create a marketing strategy based on research studies. All of student agreed, that the more cases (examples) of marketing, the more they can got the understanding.

5 CONCLUSIONS

Increasing Customer Value can be done by striving for the growth of customer confidence. The customer has to have a perception that the products they buy provide benefits both economically and functionally. Psychologist of customers assumes that what is needed by the customer will be available by providers through Expected Value dimension. The provider must ensure that the accuracy of the reservation is given to the customer. In addition, it should be improved especially the beauty of the product. The products to be sold should have attractive appeal of the product, attractive models and artistic colours.

In case of medical devices, the perception of the user shall be established by confirming the conformity of the price with the quality of the offered product and with the assurance that the service will be provided well before the purchase. Keeping the intensity of customer relationships through Dissemination of Organizational Knowledge and efforts to provide online media services in the form of an email has to be concerned. Pay attention to the website. It has to be informative and interactive.

The manufacturer of health equipment either directly or through the distributor must be demanded to improve the Product Quality, Perception Price, Relationship Marketing, especially by focusing on the very dominant dimension. The explaining of its and other dimensions has to be maintained and enhanced systematically, in order to increase Customer Value, and customer loyalty.

Valurization of research results has been done in the course of strategic management for undergraduate students in the management program. The result of research is best practice in applying product marketing strategy. Learning by using real examples based on research results is very valuable to increase understanding of marketing strategy.

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