

## **Examining the Determinants of Customer Satisfaction in Medicine and Health Device Distributors**

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**Abstract:** Through an in-depth understanding of these factors, drug and medical device distributors can develop strategies to increase their customer satisfaction, strengthen business relationships, and create added value in a competitive market. This research aims to analyze the role of distribution channel activities and promotional activities in increasing satisfaction and creating customer loyalty in drug distribution companies in Denpasar. This research uses quantitative methods with a Structural Equation Modeling approach using Smart Partial Least Square (SEM-PLS) version 4. The research results found that (1) increased customer satisfaction can be created through a good distribution channel system and promotional activities that are carried out appropriately; (2) High customer loyalty can be created through a good distribution system, good promotional activities, and high customer satisfaction; (3) customer satisfaction is proven to act as a mediating construct between the relationship between distribution and loyalty and promotion and loyalty. This research provides recommendations for drug distribution companies in increasing customer loyalty and satisfaction through determining appropriate distribution channels and implementing good promotions.

**Keywords:** Customer Loyalty, Distribution, Drug Distribution, Satisfaction, Promotion and Smart-PLS 4

### **A. Introduction**

The increasingly competitive level of competition that occurs in the business world requires every business person to always strive to design the right strategy so that their business is able to develop, achieve company goals, and win market share competition (Alalwan, 2020). Moreover, each industrial sector always creates various methods and policies that can create efficiency, especially in terms of marketing products in order to achieve maximum profits and be able to maintain its existence in the fierce competition of similar businesses (Chaerudin & Syafarudin, 2021).

In facing competition, companies should not only focus on smooth production, but need to pay attention to appropriate and effective marketing strategies (Uzir et al., 2021). Companies must also be able to adapt to the market conditions they are facing,

so that their marketing strategy can be successful (Uzir et al., 2021). There are several aspects that can influence the success of a marketing strategy, namely distribution channels that are well implemented and promotional activities that are carried out appropriately so that in the future they can create a sense of satisfaction in the minds of customers which can then create loyalty (De Leon et al., 2020).

Druică et al., (2021) states that distribution describes the movement of goods from producers to consumers. Consumers will be happy if the company chooses the right distribution channel. Furthermore, Kotler & Armstrong, (2010) revealed that promotional activities have the main aim of persuading consumers through products or services, encouraging them to make purchases. Promotional activities are also carried out in order to convey information related to products or services to consumers and increase their awareness. Kotler & Armstrong, (2010) also states that customer satisfaction can be described as the result of customer assessments of company performance, especially regarding the products or services offered. When consumers feel satisfied, it can encourage loyalty. Loyalty can be demonstrated through the actions of customers who tend to continue using the company's products or services (Ruiz-Mafe et al., 2014). In other words, a positive relationship between consumers and the company can be built by the customer's sense of satisfaction with the company.

In Minister of Health Regulation Number 26 of 2018, it is explained how to distribute medicines and/or medicinal substances along distribution/distribution routes in accordance with the requirements and intended use, known as a good way of distributing medicines called CDOB. Meanwhile, the series of distribution and quality control procedures used in the proper distribution of medical devices is known as CDAKB. Every drug and medical device distribution company is absolutely required to have a CDOB (Good Medicine Distribution Method) certificate and a CDAK (Medical Device Distribution Method) certificate.

Daily drug distribution companies in Denpasar serve pharmacies, clinics, hospitals, government institutions and drug stores. Based on the results of preliminary studies on drug distribution companies, it can be seen that during the 2018 - 2020 period, the increase in the number of customers was not necessarily directly proportional to the increase in sales volume. The company's sales (turnover) tend to fluctuate unstable.

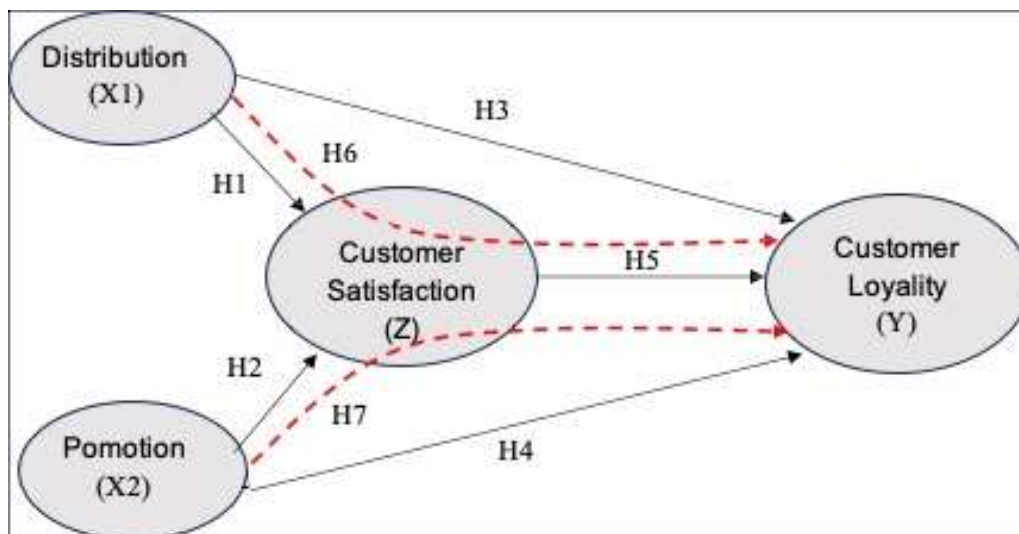
With increasingly fierce competition, companies strive to maintain customer satisfaction. Companies try to benefit customers and make the most money for the business. Customer happiness has usually been the subject of previous research on variables that influence customer loyalty. They found that clients with the highest levels of happiness were more likely to stay with their current service provider. Even if it has a beneficial impact on customer loyalty.

There is also research that has shown customer happiness is not necessarily a

necessary prerequisite for this effect to occur. Meanwhile, it was stated by (Rita et al., 2019) in the (Harzaviona & Syah, 2020) that the company's advertising and promotional efforts have a beneficial effect on its loyal clients.

## B. Methods

This study was carried out using a quantitative approach and took place at a drug distribution company in Denpasar. The sample was determined to be 120 outlet leaders using a simple random sampling method. The primary data collection instrument used a questionnaire with a 10-point differential semantic scale and analyzed using the Structural Equation Modeling approach with Smart Partial Least Square (SEM-PLS) version 4. Hypothesis testing used the right-sided test with a critical value of  $t = 1.645$  and  $p$ -values below 0.05 (Ruxton & Neuhäuser, 2010); (Adi et al., 2023). There are 7 hypotheses tested as follows. 1) Distribution has a positive effect on customer satisfaction. 2) Promotion has a positive effect on customer satisfaction. 3) Distribution has a positive effect on customer loyalty. 4) Promotion has a positive effect on customer loyalty. 5) Customer satisfaction has a positive effect on customer loyalty. 6) Customer satisfaction mediates the effect of distribution on customer loyalty. 7) Customer satisfaction mediates the effect of promotions on customer loyalty.



**Figure 1. Conceptual Framework**

## C. Results and Discussion

This study was carried out to investigate the role of distribution and promotional strategies in creating consumer satisfaction and loyalty. The first stage of PLS-SEM analysis, namely the outer model evaluation, has succeeded in confirming that the data used meets validity and reliability. For this reason, Table 1 is presented below.

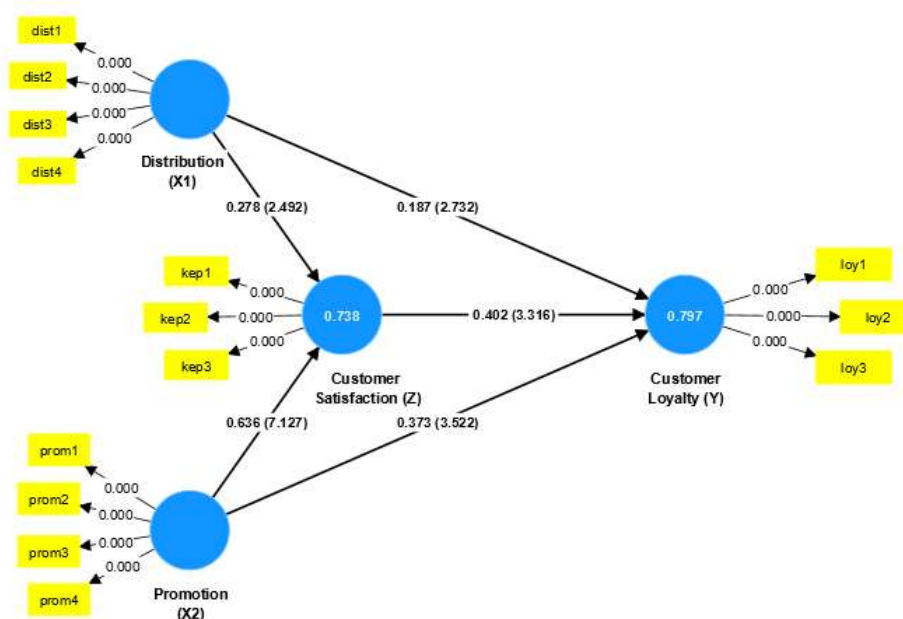
**Table 1. Instrument Testing Results**

| Construct             | Items | Loading Value | AVE   | Cornbach's Alpha | Composite Reliability |
|-----------------------|-------|---------------|-------|------------------|-----------------------|
| Distribution          | dist1 | 0,901         | 0,868 | 0,949            | 0,963                 |
|                       | dist2 | 0,941         |       |                  |                       |
|                       | dist3 | 0,945         |       |                  |                       |
|                       | dist4 | 0,938         |       |                  |                       |
| Promotion             | prom1 | 0,889         | 0,762 | 0,895            | 0,927                 |
|                       | prom2 | 0,939         |       |                  |                       |
|                       | prom3 | 0,855         |       |                  |                       |
|                       | prom4 | 0,804         |       |                  |                       |
| Customer satisfaction | kep1  | 0,917         | 0,857 | 0,916            | 0,947                 |
|                       | kep2  | 0,953         |       |                  |                       |
|                       | kep3  | 0,906         |       |                  |                       |
| Customer loyalty      | loy1  | 0,856         | 0,744 | 0,829            | 0,897                 |
|                       | loy2  | 0,877         |       |                  |                       |
|                       | loy3  | 0,853         |       |                  |                       |

Source: Processed data, 2023

In Table 1 above, it can be seen that the outer loading value for each statement item is above 0.70 with an AVE value above 0.50. As well as testing internal consistency with Cornbach's Alpha and Composite Reliability values, we also succeeded in obtaining a score above 0.70, this indicates that the data collected has been proven to be reliable and consistent.

The next stage is an inner model analysis which includes testing R<sup>2</sup>, Q<sup>2</sup>, Goodness of Fit, as well as hypothesis testing through the bootstrapping procedure as presented in Figure 2 and Table 2 below.



**Figure 2. PLS Bootstrapping output**

In Figure 2, it can be seen that the R2 value of Customer Satisfaction obtained a score of 0.738; then the model includes strong model criteria, meaning that variations in Distribution and Promotion are able to explain variations in Customer Satisfaction by 73.8 percent, the remaining 26.2 percent is explained by variations in other determinants. Furthermore, the Customer Loyalty construct obtained an R2 score of 0.797 or is considered strong, meaning that variations in Distribution, Promotion and Customer Satisfaction are able to explain variations in Customer Loyalty of 79.7 percent. The remaining 20.3 percent is explained by variations in other determinants.

Next, the Q<sup>2</sup> test is carried out using the following calculation:  $Q^2 = 1 - (1 - 0,738) (1 - 0,797) = 1 - (0,262) (0,203) = 1 - 0,053 = 0,947$  which means that the estimation model is included in the criteria strong, where 94.7% of variations in endogenous constructs can be predicted by variations in exogenous constructs. Goodness of Fit testing in this study was carried out using the following calculations:  $\sqrt{A.R^2 * A.AVE} = \sqrt{0,767 * 0,808} = \sqrt{0,620} = 0,790$  which means that the global model is highly predictive, meaning that the model obtained in the estimation shows that the model good (fit model).

**Table 2. Hypothesis Testing Results**

| <i>Path Coefficient Between Variables</i>       | <i>Original Sample</i> | <i>T-Statistic</i> | <i>P Values</i> |
|---|------------------------|--------------------|-----------------|
| Distribution (X1) → Customer Satisfaction (Z)   | 0,278                  | 2,492              | <b>0,006</b>    |
| Promotion (X2) → Customer Satisfaction (Z)      | 0,636                  | 7,127              | <b>0,000</b>    |
| Distribution (X1) → Customer Loyalty (Y)        | 0,187                  | 2,732              | 0,003           |
| Promotion (X2) → Customer Loyalty (Y)           | 0,373                  | 3,522              | 0,000           |
| Customer Satisfaction (Z) → Customer Loyalty(Y) | 0,402                  | 3,316              | 0,000           |

Source: Processed data, 2023

Hypothesis testing is carried out through a bootstrapping procedure. The data in Table 3 can explain that all the hypotheses proposed are acceptable. This result can be confirmed by the t-statistic value obtained exceeding 1.65 with p-values below 0.05. First, this study succeeded in proving that distribution is a factor that has a positive and significant role in customer satisfaction. This can be seen by obtaining an influence coefficient score of 0.277 with a t-statistic of 2.492 > 1.65 and P-value = 0.006 < 0.05. This finding is in line with the results of studies by Vittorio Tanjaya and Willy Wijaya (2019) and Rahmawati Taib (2016) who examined that a significant relationship was found between distribution and customer satisfaction.

Second, the research results confirm that promotional activities carried out well can increase customer satisfaction. This can be shown by the influence coefficient value of 0.636, t-statistic value = 7.127 > 1.65 and P-value = 0.000 < 0.05. This finding is supported by the results of the study by (Tanjaya & Wijaya, 2019), (Silalahi et al., 2013) and the research findings of (Listiwati et al., 2017) which identified a strong relationship between promotions and customer satisfaction.

Third, the research results have confirmed that distribution activities carried out well

can increase customer loyalty. This can be shown by the influence coefficient value of 0.187, t-statistic value =  $2.732 > 1.65$  and P-value =  $0.003 < 0.05$ . This finding is supported by the results of Debby Ayu's (2019) study which succeeded in proving that there is a significant relationship between distribution and loyalty. Distribution can basically be described as the process of distributing products from producers to consumers, in which this process must be able to ensure that the products or services that will be distributed to consumers must be suitable for consumption or use (Churchill & Surprenant, 1982).

Fourth, the research results have confirmed that promotional activities carried out well can increase customer loyalty. This can be shown by the influence coefficient value of 0.373, t-statistic value =  $3.522 > 1.65$  and P-value =  $0.000 < 0.05$ . These findings can strengthen the results of (Zahirotul Amiroh & Sukmawati Puspitadewi, 2021) study which states that there is a positive and significant relationship between the promotion system and customer loyalty.

Fifth, the research results have confirmed that high customer satisfaction can increase customer loyalty. This can be shown by the influence coefficient value of 0.402, t-statistic value =  $3.316 > 1.65$  and P-value =  $0.000 < 0.05$ . When consumers are satisfied with the company's performance, especially regarding distribution and promotions carried out, they will be able to increase customer loyalty. These findings can strengthen the research findings of (Zahirotul Amiroh & Sukmawati Puspitadewi, 2021); (Kamil et al., 2020) who found that satisfaction is one of the main components that is able to generate loyalty from customers.

Sixth, since the influence of distribution on customer satisfaction is significant, the influence of customer satisfaction on customer loyalty is significant and the direct influence of distribution on customer loyalty, it can be stated that customer satisfaction is a partial mediating variable of the influence of distribution on customer loyalty. Customer loyalty can be achieved through increasing customer satisfaction or directly without increasing customer satisfaction. This finding has similarities with the results of previous research, namely the results of the studies of (Margaretha, 2016) and (Puspa Ningtias, 2018); (Olivia & Ngatno, 2021) and (Ai et al., 2022) which prove that satisfaction can play a role as a mediator between constructs.

Seventh, since the effect of promotion on customer satisfaction is significant, the effect of customer satisfaction on customer loyalty is significant and the direct effect of promotion on customer loyalty, it can be stated that customer satisfaction is a partial mediating variable for the effect of promotion on customer loyalty. This means that increasing customer loyalty can be done through increasing customer satisfaction or directly without increasing customer satisfaction. This finding is in line with the findings of (Pitt et al., 2016) who argue that promotional activities carried out by companies have the main aim of helping to increase sales volume, being able to create repeat purchases, arousing consumer interest in the products or services offered,

increasing consumer awareness, to aim in building loyalty that exists between the company and customers. What's more, the right promotional strategy can also create satisfaction in the minds of consumers.

#### **D. Conclusion**

This study was carried out to investigate the role of distribution and promotional strategies in creating consumer satisfaction and loyalty. Testing using the PLS-SEM approach proves that customer satisfaction can be created through a good distribution system and promotional activities that are carried out appropriately. Furthermore, high loyalty can also be created through a good distribution system, good promotional activities, and high satisfaction in the minds of consumers. An interesting finding in this study is that customer satisfaction is proven to be able to act as a partial mediating construct between the relationship between distribution and customer loyalty and promotion on customer loyalty. Through the studies that have been carried out, it can be said that it is important to build customer loyalty by focusing on increasing customer satisfaction, especially by implementing attractive promotional activities and a good distribution system. Therefore, in order to achieve high satisfaction, company management should improve the implementation of its distribution system and promotion system, especially the achievement of indicators for preparing products in the right conditions and the achievement of indicators for increasing the frequency of sales promotions. To be able to maintain and increase the achievement of high customer loyalty, management should increase the implementation of the distribution system, promotion system and customer satisfaction, especially the achievement of indicators for preparing products in the right conditions and the achievement of indicators, namely increasing the frequency of sales promotions and achievement of indicators to stimulate interest in revisiting and shopping at drug and health equipment distribution companies.

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