

# THE EFFECT OF DISTRIBUTION COST, DISTRIBUTION CHANNELS AND MARKETING CHANNELS ON THE SALES VOLUME OF MIE SEDAAP ON PT. ADR WING GROUP LHOKSEUMAWE CITY

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## Abstract

This study aims to determine how the effect of distribution costs, distribution channels, and marketing channels on the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City. The data used in this study was primary data by distributing questionnaires to 90 respondents. The data analysis technique used in this study is multiple linear regression analysis consisting of data instrument tests, classical assumption tests, and hypothesis testing using SPSS software version 26. The results showed that distribution costs, distribution channels, and marketing channels had a positive and significant effect on the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City.

**Keywords:** *Distribution Cost, Distribution Channels, Marketing Channels, and Sales Volume*

## 1. INTRODUCTION

One of the challenges that must be faced by business people today is when consumers do not find products in the surrounding environment. This is for business people to evaluate their distribution channels because one of the factors that can affect sales volume is the existence of distribution channels. According to Pradana and Permatasari (2018), product development is an activity that needs to be considered by business people. This is because markets, competition, and life cycles are rapidly changing with the times. Product development carried out by business people appropriately will be useful for increasing sales volume. In this modern economic era, various fields can be easily entered by companies or industries due to rapid changes in tastes, technology, and competition. The success of a company depends on the ability of a company to provide its products in the market in accordance with what is needed by consumers. This is as explained by Setianingsih, et al (2019) where in the world of consumer transactions is king so that to face competition, companies must make good and correct transactions and need to carry out marketing activities using the right distribution channels so that goals can be achieved by the company.

PT. ADR Wings Group is a company that produces various brands of products, PT ADR Wings Group itself is a company that has grown from a small home industry to a *market leader* employing thousands of people with factories located in various regions such as Jakarta and Surabaya. PT. Wings Group itself produces various products such as soap, powder, detergent, instant noodles, and various other products. The high level of distribution is inseparable from the high volume of sales of sedaap noodles carried out by various wholesalers in Lhokseumawe City and North Aceh Regency, volume sales itself is the number of goods or services sold in a certain period of time. According to Kotler (2015) sales volume is goods that are sold in the form of money for a certain period of time and in it have a good service strategy.

Distribution cost is one of the factors that can affect sales volume. This is because the cheaper the distribution cost of an item or product ordered, the level of sales of a good or service will increase. According to Kotler (2017), distribution costs include planning, implementing and controlling the flow of materials and final goods from the point of origin to the point of use to meet customer demands for and perform all tasks that are rewarded in the form of profit. In previous research conducted by Rohyana (2021) found that distribution costs have a positive and significant effect on sales volume.

Then, another factor that can affect the level of sales volume is the existence of clear distribution channels. This is because in order for the company to smoothly distribute its products to the market or to consumers appropriately and quickly, it is necessary to have a dealer who helps move the product from the producer to the hands of the consumer in question with the distribution channel, so that the existence of the distribution channel will make the sales volume in a company will also increase at any time. According to Sunyoto (2019), distribution channels can be interpreted as a group of traders and company agents who combine physical transfers and the name of a product to create usefulness for certain markets. In previous research conducted by Pradana and Permatasari (2018) found that distribution channels have a positive and significant effect on sales volume.

Another factor that can affect sales volume is marketing channels, this is because the existence of marketing channels that are a liaison between consumers and producers, will make goods produced by a company easily affordable by consumers in various places or at various wholesale stores in an area. Tjiptono in Kurniawan, et al (2019) explained that marketing channels can be interpreted as marketing activities that seek to facilitate and facilitate the delivery of goods and services from producers to consumers so that their use is as needed. Based on the sales figures of sedaap noodles, it shows that during 2022 the demand for sedaap noodles at PT. ADR Wings Group reached 135,109 boxes, where every month the demand for sedaap noodles continues to increase, it can be seen in January 2022 the total sales volume of sedaap noodles at PT. ADR Wings Group is 7,710 boxes. However, in December 2022, the sales volume of sedaap noodles at PT. ADR Wings Group Lhokseumawe City reached 15,355 boxes, an increase of 71.79% from January 2022.

Based on the above phenomenon, where it can be seen that instant noodle products with the Sedaap noodle brand are the products that are most in demand by consumers, this can be seen from the higher level of distribution of Mie Sedaap carried out by PT. ADR Wings Group Lhokseumawe City during 2022 which reached 135,109 boxes. Therefore, the author is interested in conducting research on "The Effect of Distribution Costs, Distribution Channels, and Marketing Channels on Sales Volume at PT. ADR Wings Group in Lhokseumawe City".

## **2. LITERATURE REVIEW**

### **2.1 Distribution Cost**

Distribution costs are an important factor that needs to be considered when the company will produce production. This is because every company certainly wants large profits in every production business. Therefore, an understanding of production costs is needed so that a company can calculate the costs that will be incurred to produce *output* goods. According to Assauri (2018) cost is cash or cash equivalent value that is expected to provide current or future benefits for a company, while distribution is the delivery of goods and services from producers to consumers. Distribution costs are the costs incurred to sell and ship products.

### **2.2 Distribution Channel**

Distribution channels are intermediaries between buyers and sellers through which the movement of goods, both physical and owned, has been passed from producers to consumers. A company in distributing its goods can use one or more of the distribution methods, for companies that have just been established, choosing a distribution channel is not an easy job because it has just entered the market (Sunyoto, 2019).

### **2.3 Marketing Channels**

A marketing channel is a series of interdependent organizations involved in the process of making goods or services ready for use and consumption. Marketing channels can also be interpreted as channels used by producers to channel these goods from producers to consumers or



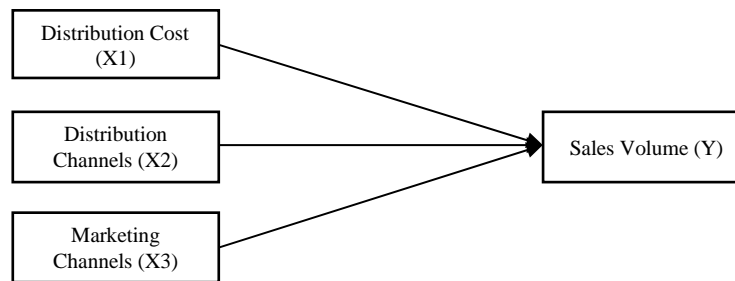
industrial users (Kotler, 2017). According to Nitisemito (2017), marketing channels are marketing institutions that have activities to distribute or deliver goods or services from producers to consumers.

## 2.4 Sales Volume

Sales is an activity that results in the flow of goods out of the company so that the company receives money from customers. Sales for service companies are services that the company sells. For trading companies are goods traded by the company. As well as for manufacturing companies are goods produced and sold by the company (Schiffman and Kanuk, 2015). According to Kotler and Keller (2016), sales volume is the final result achieved by the company from the sales of products produced by the company. Sales volume does not separate in cash or credit but is calculated as a whole from the total achieved. If the sales volume increases and distribution costs decrease, the company's profit achievement level also decreases.

## 2.5 Conceptual Framework

Based on the explanation about the effect of taste, price, and brand image on purchasing decisions, the following conceptual framework can be developed:



**Figure 1** conceptual framework

## 2.6 Research Hypothesis

Based on the problem formulation and conceptual framework, the hypotheses in this study are:

- H1 : Distribution cost have a positive and significant effect on volume sales of Mie Sedaap at PT. ADR Wings Group In Lhokseumawe City.
- H2 : Distribution channels have a positive and significant effect on volume sales of Mie Sedaap at PT. ADR Wings Group In Lhokseumawe City.
- H3 : Marketing channels have a positive and significant effect on volume sales of Mie Sedaap at PT. ADR Wings Group In Lhokseumawe City.

## 3. RESEARCH METHODS

### 3.1 Research Subjects and Locations

This research was conducted on Wholesalers in Lhokseumawe City. The object of this study is related to distribution costs, distribution channels, marketing channels, and sales volume of Mie Sedaap.

### 3.2 Population and Sample

The population used in this study is all owners or managers of wholesalers in Lhokseumawe City. Meanwhile, the number of samples used is as many as 90 owners or wholesale managers in Lhokseumawe City with sample selection based on the Hair formula.

### 3.3 Classic assumption test

The classical assumption test consists of several stages, namely, normality test, heteroscedasticity test and multicollinearity test.

### 3.4 Data analysis method

The method of data analysis in this study is using multiple linear regression, to see the effect of distribution cost, distribution channels and marketing channels on sales volume of mie sedaap at PT. ADR Wings Group the SPSS 26.0 program. The regression equation can be formulated as follows:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + e$$

Where :

- Y = Sales Volume
- $\alpha$  = Constant/intercepts
- $\beta_1, \beta_2, \beta_3$  = Regression coefficient
- X1 = Distribution Cost
- X2 = Distribution Channels
- X3 = Marketing Channels
- e = *error term*

## 4. RESULTS AND DISCUSSION

The research results in this article are presented in a summarized form to make it more practical and clear and are presented through a feasibility test and then an analytical test, namely as follows:

### 4.1 Validity Testing Results

Validity testing is used to measure whether a questionnaire is valid or not. The results of validity testing can be seen in Table 1.

**Table 1** Validity Testing Results

Variabel	R <sub>Calculated</sub>	Sig.	R <sub>table</sub>	Note
X1.1	0,762	0,000	0,2072	Valid
X1.2	0,712	0,000	0,2072	Valid
X1.3	0,782	0,000	0,2072	Valid
X1.4	0,709	0,000	0,2072	Valid
X2.1	0,658	0,000	0,2072	Valid
X2.2	0,726	0,000	0,2072	Valid
X2.3	0,763	0,000	0,2072	Valid
X2.4	0,804	0,000	0,2072	Valid
X3.1	0,736	0,000	0,2072	Valid
X3.2	0,767	0,000	0,2072	Valid
X3.3	0,774	0,000	0,2072	Valid
Y.1	0,776	0,000	0,2072	Valid
Y.2	0,768	0,000	0,2072	Valid
Y.3	0,672	0,000	0,2072	Valid

Source: Primary data processed, 2023

Based on table 1 above, it can be seen that all variables used have a value of  $r_{\text{calculate}}$  greater than  $r_{\text{table}}$  with a significant value smaller than 0.05. So it can be concluded that the data in this study is valid.

### 4.2 Reliability Test Results

The reliability test is an index that shows the extent to which the measuring device is reliable. For further explanation, see Table 2.

**Table. 2** Reliability Test Results

No.	Variable	Cronbach's Alpha	Note
1	Distribution Cost	0,725	Reliabel
2	Distribution Channels	0,715	Reliabel
3	Marketing Channels	0,632	Reliabel
4	Sales Volume	0,756	Reliabel

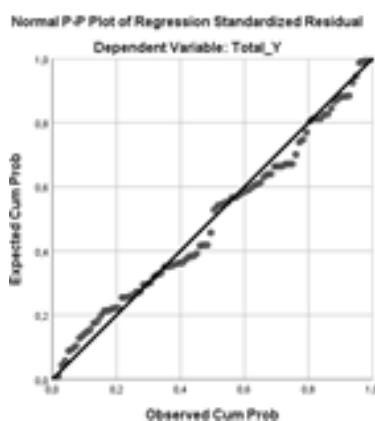
Source: Primary data processed, 2023

Based on table 2 above, it can be seen that all variables used have *Cronbach's alpha* value greater than 0.6. So it can be concluded that the data in the study is reliable.

### 4.3 Classical Assumption Testing Results

#### 1. Data Normality Test Results

Data normality testing was carried out to find out whether the data obtained through distributing questionnaires was normally distributed or not. The results of the normality test can be seen in the image below:



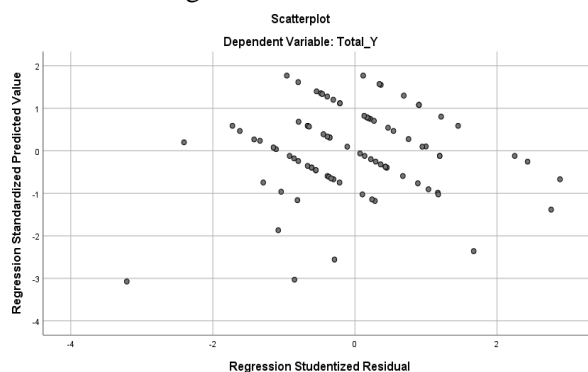
Source: Processed primary data, 2023

**Figure 2** Graph of normality probability plot test results

Based on the SPSS output results in Figure 2, it can be seen that the data is spread around the diagonal line, so it can be concluded that the data in the regression model of this study are normally distributed. Furthermore,

#### 2. Heteroscedasticity Test Results

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residual one observation to another (Ghozali, 2016). The results of the heteroscedasticity test can be seen in Figure 4.



Source: Processed primary data, 2023

**Figure 3** Heteroscedasticity Test

Based on Figure 4.2, it can be seen that the dots spread evenly inside, above and below the number 0 on the Y axis. In addition, these dots do not form a particular pattern, it can be concluded that there were no symptoms of heteroscedasticity in this study .

### 3. Multicollinearity Test Results

Multicollinearity testing was carried out to see whether there was a high correlation between the independent variables in a multiple linear regression model (Ghozali, 2016). The results of the multicollinearity prerequisite test can be seen in Table 3.

Table 3 Multicollinearity Test Results

Variabel	Collinearity Diagnostic		Keterangan
	VIF	Tolerance	
Distribution Cost	1,694	0,590	Not Multikolinearity
Distribution Channels	1,742	0,574	
Marketing Channels	1,037	0,964	

Source: Primary data processed, 2023

Based on the results of the multicollinearity test in the table above, it was obtained that the VIF value obtained by the two independent variables used was smaller than 10 and obtained a tolerance value greater than 0.10. So it can be concluded that the data used in this study did not occur multicollinearity.

### 4.4 Data analysis method

#### 1. Partial Test

The partial test aims to determine how the influence of each independent variable individually on the dependent variable, where if the significant value is smaller than 0.05 and thecalculated T value is greater than the table T value, it shows that the independent variable partially has a significant effect on the dependent variable (Ghozali, 2018) . The partial test results in this study are as in the following table:

Table 4. Partial Test

Variable	Unstandardized Coefficient		Standardized Coefficient Beta	t	Sig
	B	Std. Error			
(Constant)	1,620	1,237		1,310	0,194
Distribution Cost	0,294	0,064	0,424	4,585	0,000
Distribution Channels	0,232	0,061	0,354	3,781	0,000
Marketing Channels	0,212	0,078	0,196	2,705	0,008

Source: Primary data processed, 2023

Based on the partial test results above, it was found that the distribution cost had a significant value of 0.000 or less than 0.05 ( $0.000 < 0.05$ ) and obtained a coefficient value of 0.294. So it can be concluded that distribution costs have a positive and significant effect on sales volume. The distribution channel variable has a significant value of 0.000 or less than 0.05 ( $0.000 < 0.05$ ) and obtains a coefficient value of 0.232. So it can be concluded that distribution channels have a positive and significant effect on sales volume. The marketing channel has a significant value of 0.008 or less than 0.05 ( $0.008 < 0.05$ ) and obtains a coefficient value of 0.212. So it can be concluded that marketing channels have a positive and significant effect on sales volume.

#### 2. Coefficient Determination Test

The coefficient of determination test aims to measure how far the model's ability to explain the variation of the dependent variable (Ghozali, 2018). The value of the coefficient of determination lies in 0 and 1 with a classification of correlation coefficients of 0 (no correlation), 0

– 0.49 (weak correlation), 0.50 (moderate correlation), 0.51 – 0.99 (strong correlation), 1, 00 (perfect correlation). The value of the coefficient of determination means that the ability of the independent variable to explain the dependent variable is very limited (Ghozali, 2018). The results of the coefficient of determination test are as in the following table:

**Table 5.** Coefficient Determination Test Result

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	0,753	0,567	0,551	0,953

Source: Primary data processed, 2023

Based on the results of the coefficient of determination test in table above, it can be seen that the value of the coefficient of determination (*adjusted r-square*) obtained is 0.551. This shows that the sales volume of Mie Sedaap at PT. ADR Wings Group Lhokseumawe City is affected by distribution costs, distribution channels, and marketing channels by 55.1%. While the remaining 44.9% was influenced by other variables that were not used in the study. Therefore, it can be concluded that the coefficient of determination in this study has a strong correlation because it is in the correlation of 0.51 – 0.99.

### 3. Multiple linear regression

Multiple linear regression analysis is used to determine the direction and how much influence the independent variable has on the dependent variable (Ghozali, 2018). Multiple linear regression analysis in this study aims to determine how the influence of distribution costs and distribution channels on the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City. The results of the multiple linear regression equation analysis in this study are as follows:

$$Y = 1.620 + 0.294X_1 + 0.232X_2 + 0.212X_3$$

Based on the results of the multiple linear regression equation above, it can be concluded that:

- The constant value obtained is 1,620 which shows that if distribution costs and distribution channels increase, then the sales volume of Mie Sedaap at PT. The ADR of Wings Group Lhokseumawe City will also increase.
- The value of the distribution cost coefficient is obtained at 0.294 which shows that if the distribution cost increases by 1%, then the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City will experience an increase of 29.4%.
- The coefficient value of the distribution channel is 0.232 which shows that if the distribution channel increases by 1%, then the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City will experience an increase of 23.2%.
- The coefficient value of the marketing channel is 0.212 which shows that if the marketing channel increases by 1%, then the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City will experience an increase of 21.2%.

### 4. Proof of Hypothesis

#### The Effect of Distribution Cost on Sales Volume

Based on the results of research that the author has done, where it is obtained that the variable distribution cost has a significant value smaller than the significant level used with a positive coefficient value. This shows that distribution costs have a positive and significant effect on sales volume. Therefore, the hypothesis that states that distribution costs have a positive and significant effect on the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City accepted ( $H_1$  received).

### **Effect of Distribution Channels on Sales Volume**

Based on the results of research that the author has done, where it was obtained that the distribution channel variable has a significant value smaller than the significant level used with a positive coefficient value. This shows that distribution channels have a positive and significant effect on sales volume. Therefore, the hypothesis that states that distribution channels have a positive and significant effect on the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City accepted ( $H_2$  received).

### **Effect of Marketing Channels on Sales Volume**

Based on the results of research that the author has done, where it was obtained that the marketing channel variable has a significant value smaller than the significant level used with a positive coefficient value. This shows that marketing channels have a positive and significant effect on sales volume. Therefore, the hypothesis that states that marketing channels have a positive and significant effect on the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City accepted ( $H_3$  received).

## **5. CONCLUSIONS AND SUGGESTIONS**

Based on the results of research that has been conducted on the effect of distribution costs, distribution channels, and marketing channels on the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City, the conclusions in this study are as follows:

1. Distribution costs have a positive and significant effect on the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City.
2. Distribution channels have a positive and significant effect on the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City.
3. Marketing channels have a positive and significant effect on the sales volume of Mie Sedaap at PT. ADR Wings Group in Lhokseumawe City.

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