THE EFFECT OF RESEARCH AND DEVELOPMENT COSTS, ADVERTISING AND PROMOTION COSTS ON COMPANY VALUE (CASE STUDY OF NON CYCLICALS) CONSUMER SECTOR COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE (IDX) 2019-2023 PERIOD)

Rizki Ramadhan[1], Hilmi[2], Cut Yunina Eriva[3], Akhlal Auni[4]
Rismadi[5], Dewi Maya Sari[6]

[1*,3,4,5,6]Politeknik Aceh, Indonesia. (rizkiramadhan@politeknikaceh.ac.id)
[2]Faculty of Economics and Business, Universitas Malikussaleh, Indonesia.

ABSTRACT

This study aims to determine the effect of research and development costs, advertising and promotion costs on company value (Case Study of Consumer Non-Cyclicals Sector Companies Listed on the Indonesia Stock Exchange (IDX) for the 2019-2023 Period. Consumer Non-Cyclicals sector companies are household needs industry sector companies that will experience growth along with population growth, and are also companies that are in great demand by investors in investing their capital, where slowing economic growth will not cause the industry to experience a drastic decline in stock value or company value. To determine the effect on company value, it is necessary to test the variables that affect company value with SPSS version 25. So this study uses a documentation method with qualitative secondary data taken from the site www.idx.co.id . The results of the study indicate that the variables of research and development costs, advertising and promotion costs have a positive and significant effect on company value both partially and simultaneously.

Keywords: Research and Development Costs, Advertising and Promotion Costs, Company Value

1. INTRODUCTION

In 2023, the Indonesian economy faces various challenges, with economic growth slowing to 5,05 percent, lower than the previous year which reached 5.31 percent. This factor is influenced by easing inflation and benchmark interest rates that remain high in various countries until the end of the year. Global financial markets, especially in developing countries such as Indonesia, are experiencing turmoil with increasing capital outflows which put pressure on local exchange rates (Setkab.go.id, 2023).

In the midst of this situation, manufacturing companies in the consumer non-cyclical sector that produce daily necessities are expected to continue to grow along with population growth. This sector remains in demand by investors because even though economic growth is slowing, companies in this industry tend to be stable and do not experience drastic declines in stock value or company value.

According to Rita & Irham (2018), company value reflects the market's assessment of the company's performance, which is very important for investors as a reference in investing. Therefore, research and development are important strategies for analyzing market dynamics. Research on the consumer non-cyclical sector helps companies adapt to changing market needs.

In addition, effective advertising and promotion not only attract consumers but also increase investors' perceptions of a company's growth potential. Investors are more likely to view companies with growth potential as attractive investment prospects, which ultimately increases the company's

value in the long run. In uncertain economic conditions, companies need to optimize spending on marketing, research and development to ensure a positive impact on company value.

2. LITERATURE REVIEW

2.1 Cost

According to Iryanie and Monika, (2019) cost is the sacrifice of resources spent to obtain goods or services. Costs include all expenses related to the production of goods or services, including the purchase of raw materials, labor wages, overhead costs, marketing costs, and so on.

2.2 Research and Development Costs

According toThe Story of Puspitasari & Aprila Maharani, (2021) research and development is an activity in a company that formulates a new discovery that only certain units are working on. With this, the company will need a lot of money to conduct research and development and this will affect the company's value. The formula for calculating research and development costs is:

$$\textbf{R\&D costs} = \frac{\textit{Total RD expenditure}}{\textit{Sales}}$$

2.3 Advertising and Promotion Costs

To market a product, both trading and manufacturing companies require one component for their product to be known to the public or consumers, namely advertising and promotion costs.(Diamond & Manda, 2021). Advertising and promotion costs are costs incurred by a company to promote the company's products, services, or brands to the public through various marketing channels.
The formula for calculating research and development costs is:

$$\textbf{Advertising Cost} = \frac{\textit{advertising and promotion costs}}{\textit{Operational Expenses}}$$

2.4 Company Values

Company value is the company's performance reflected by the stock price formed by the demand and supply of the capital market which reflects the public's assessment of the company's performance. Another opinion also states that the company's value is related to the stock price. The higher the stock price, the higher the company's value, that by maximizing the company's value, it also means maximizing the prosperity of shareholders which is the company's goal (Endah, 2022).

The greater the value of the PBV, the higher the company is valued by investors compared to the funds that have been invested in the company.Book value is obtained by comparing the total equity from the financial position statement compared to the number of shares outstanding in the form of the amount of issued and fully paid share capital. So it is formulated as follows:

$$Book\ Value = \frac{Total\ Equity}{Number\ of\ Shares\ Outstanding}$$

Meanwhile, the Price Book Value formula is as follows:

$$PriceBookValue = \frac{Stock\ price}{Book\ value})$$

3. METHODOLOGY

3.1 Research Design

In this study, the data source used is secondary data. Secondary data is data obtained in finished form and has been processed by other parties, which is usually in the form of publications. Secondary data is in the form of annual reports and financial statements.where secondary data is obtained from various sources such as BEI.

3.2 Population and Sample

The population in this study consists of consumer non-cyclical companies that have gone public and are listed on the Indonesia Stock Exchange (IDX). A total of 125 consumer non-cyclical companies listed on the IDX during the 2019-2023 period became the population of this study.

A sample is a part of the whole that has the same characteristics as the population. The sample selection technique used is purposive sampling, which is a method of determining samples based on certain considerations (Sugiyono, 2013, p.80). With the following criteria:

1. Non-cyclical consumer sector companies listed on the IDX.
2. Consumer non-cyclical sector companies that publish financial reports consecutively for the period 2019-2023.
3. Non-cyclical consumer sector companies that have research and development costs, advertising and promotion costs.

3.3 Data collection

The data collection method consists of the method of the influence of research and development costs, advertising and promotion costs on company value in non-cyclical consumer sector companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2023 period.

The steps that researchers use are:

1. Searching for the names of non-cyclical consumer sector companies listed on the IDX for the 2019 – 2023 period
2. Download the financial reports of non-cyclical consumer sector companies for the period 2019 – 2023 which can be found at (www.idx.co.id)
3. Selecting financial reports according to the criteria used

4. Tabulating data related to research and development costs against company value in each company.

5. Processing data using SPSS software version 25

6. Analyze the influence of research and development costs, the influence of advertising and promotion costs on company value.

4. RESULTS AND DISCUSSION

4.1 Results

4.1.1 Descriptive Analysis

Descriptive statistical calculations for all companies used as research samples during the 2019-2023 period can be seen in the following table:

Table 1

Descriptive Analysis Results

Note	N	Minimum	Maximum	Mean	Std. Deviation
Research and Development Costs	60	0.00000	0.02530	0.0038278	0.00644508
Advertising and Promotion Costs	60	0.00270	0.71652	0.2991138	0.18742519
Company Values	60	0.02867	5.84596	1,9808290	1.62067537
Valid N (listwise)	60				

Source: Processed Data (SPSS, 2024)

The processed data is as many as 60 company samples obtained from the number of companies included in the sampling criteria, namely 12 companies in the consumer non-cyclicals sub-sector and the length of the research year is 5 years, so the amount of data processed is 60 company data samples.

There is a minimum value of 0.00000 in research and development costs and a maximum value of 0.02530. The mean value of the research and development cost variable is 0.0038278 with a standard deviation of 0.00644508. Furthermore, it is the same as before.

4.1.2 Classical Assumption Test

Normality Test

The Normality Test aims to test whether the data is normally distributed or not.

Table 2

Normality Test Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		60
Normal Parametersa,b	Mean	0.0000000
	Std. Deviation	1.47333102

Most Extreme Differences	Absolute		0.171
	Positive		0.171
	Negative		-0.108
Test Statistics			0.171
Asymp. Sig. (2-tailed)			0.000c
Monte Carlo Sig. (2-tailed)	Sig.		0.053d
	99% Confidence Interval	Lower Bound	0.047
		Upper Bound	0.058

Source: Processed Data (SPSS, 2024)

The results of the Monte Carlo Test can be seen that the significance value in Monte Carlo Sig. (2-tailed) is 0.053, this value is greater than 0.050. While the requirement for the Normality Test is a significance value above 0.050.

Multicollinearity Test

The Multicollinearity Test aims to test whether or not there is a correlation between independent variables in the regression model. The presence or absence of a correlation in the classical assumption test of the multicollinearity test can be seen in the output results of the Tolerance and VIF values (and variance inflation factor). The requirements to meet the classical assumption test in the multicollinearity test are a Tolerance value ≥ 0.10 and a VIF value ≤ 10

Table 3

Multicollinearity Test Results

Coefficientsa		Collinearity Statistics	
Model		Tolerance	VIF
1	Research and Development Costs	0.991	1,009
	Advertising and Promotion Costs	0.991	1,009
a. Dependent Variable: Company Value			

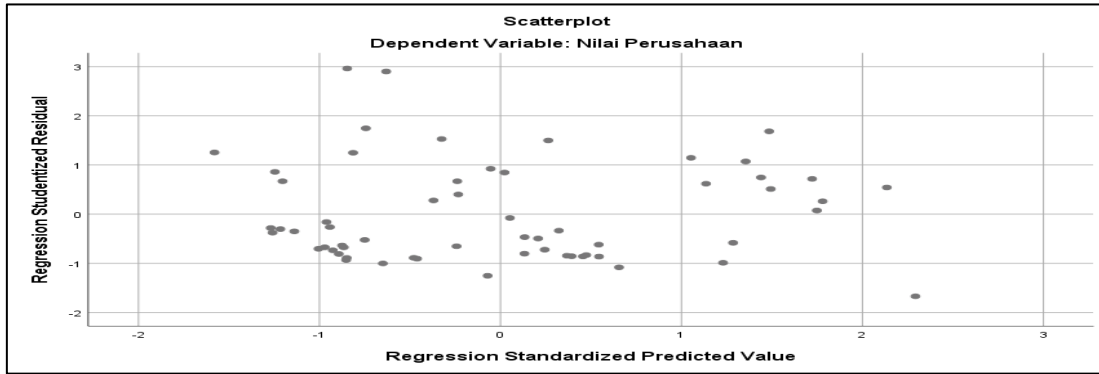*Source: Processed Data (SPSS, 2024)*

Based on table 4.3, it can be seen that the tolerance value for the variables Research and Development Costs, Advertising and Promotion Costs is greater than 0.10 and the VIF value for each of these variables is less than 10.

Heteroscedasticity Test

In the heteroscedasticity test, observing the plot between the predicted values of the dependent variable, ZPRED, and the residual SRESID. Detection of the presence or absence of heteroscedasticity can be done by looking at the presence or absence of certain patterns on the scatterplot graph.

Figure 1

Heteroscedasticity Test Results.

Source: Processed Data (SPSS, 2024)

It can be seen that the points are spread out and do not form a wave pattern, widening then narrowing, both above and below the number 0 on the Y axis. So it can be concluded that the research data does not have a heteroscedasticity problem in the regression model.

Autocorrelation Test

Autocorrelation test using run test is if the Asymp. Sig. (2-tailed) value is smaller than (<) 0.05 then there are symptoms of autocorrelation. However, if the Asymp. Sig. (2-tailed) value is greater than (>) 0.05 then there are no symptoms of autocorrelation

Table 4

Run Test Results (Autocorrelation)

Runs Test	
	Unstandardized Residual
Test Valuea	-0.50653
Cases < Test Value	30
Cases >= Test Value	30
Total Cases	60
Number of Runs	31
Z	0,000
Asymp. Sig. (2-tailed)	1,000
a. Median	

Source: Processed Data (SPSS, 2024

It can be seen that the output of the autocorrelation test using the run test shows that the significance value is 1,000. To meet the requirements of the classical assumption test in the autocorrelation test is a significance value greater than 0.05 or 5%.

4.1.3 Multiple Linear Regression Analysis

Multiple Linear Regression Analysis is used to determine the relationship between independent variables and dependent variables. The Independent Variables studied in this study are

(Research and Development Costs) and (Advertising and Promotion Costs) Against Variable Y (Company Value).$X_1 X_2$

Table 5

Multiple Linear Regression Results

	Coefficientsa					
	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.864	0.395		2,189	0.033
	Research and Development Costs	75,093	30,418	0.299	2,469	0.017
	Advertising and Promotion Costs	2,771	1,046	0.321	2,650	0.010
a. Dependent Variable: Company Value						

Source: Processed Data (SPSS, 2024)

The multiple linear regression analysis model is as follows:

$$Y = 0,864 + 75,093X_1 + 2,771X_2 + e$$

The coefficient of determination () to explain how much of the proportion of the variation of the dependent variable is explained by the independent variable. The value of this coefficient of determination lies between 0 and 1.

Table 6.

Test Results(R^2)

	Model Summary			
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.417a	0.174	0.145	1.49895609
a. Predictors: (Constant), Advertising and Promotion Costs, Research and Development Costs				

Source: Processed Data (SPSS, 2024)

Partial Test (t-Test)

The testing criteria of the t-test are if t count ≥ t table (t count is greater than or equal to t table) then it is accepted and rejected. While if t count ≤ t table (t- count is smaller than or equal to t- table) then it is accepted and rejected. The requirement to meet the t-test is that the significance value must be below or smaller than 0.05 or 5%.$H_a H_0 H_0 H_a$

Table 7

t-Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
Coefficientsa						
		B	Std. Error	Beta		
1	(Constant)	0.864	0.395		2,189	0.033
	Research and Development Costs	75,093	30,418	0.299	2,469	0.017
	Advertising and Promotion Costs	2,771	1,046	0.321	2,650	0.010
a. Dependent Variable: Company Value						

Source: Processed Data (SPSS, 2024)

Simultaneous Significance Test (F Test)

In the simultaneous significance test based on the F value, if the calculated F $\geq$ F table, it is rejected, meaning it is significant. While if the calculated F $\leq$ F table, it is accepted, meaning it is not significant. The requirement to meet the F test is that the significance value must be below or smaller than 0.05 or 5%.$H_0 H_0$

Table 8

F Test Results

Model		Sum of Squares	df	Mean Square	F	Sig.
ANOVA						
1	Regression	26,897	2	13,449	5,985	0.004b
	Residual	128,072	57	2,247		
	Total	154,969	59			
a. Dependent Variable: Company Value						
b. Predictors: (Constant), Advertising and Promotion Costs, Research and Development Costs						

Source: Processed Data (SPSS, 2024)

4.2 Discussion

4.2.1 The Influence of Research and Development Costs on Company Value

Noted that$H_0 1$ in this study, namely that research and development costs do not affect the company's value, while what is determined is that research and development costs affect the company's value. The results of the partial test (t-test) in table 4.7 show a t-count of 2.469 for the research and development cost variable as$H_a 1 X_1$ in this study, which value is greater than the t table, which is 2.00247, then the significance value is obtained at 0.017. This significance value is smaller than 0.05. With this result, it is concluded that it is rejected and accepted.$H_0 1 H_a 1$The results of this study also support several previous studies, namely the study conducted by Puspitasari

& Aprila Maharani, (2021) which obtained the results that research and development costs have a positive and significant partial effect on company value.

4.2.2 The Influence of Advertising and Promotion Costs on Company Value

Hypothesis $H_0 2$ in this study, namely that advertising and promotion costs do not affect the company's value, while what is determined is that advertising and promotion costs affect the company's value. The results of the partial test (t-test) in table 4.7 show a t-count of 2,650 for the advertising and promotion cost variables as $H_a 2 X_2$ in this study, which value is greater than the t table, which is 2.00247, then the significance value is obtained at 0.010. This significance value is smaller than 0.05. With these results, it is concluded that it is rejected and accepted.$H_0 2 H_a 2$The results of this study also support several previous studies, one of which was research conducted by The Last Supper (2020)which obtained the result that advertising and promotion has a positive and significant partial effect on company value.

4.2.3 The Influence of Research and Development Costs, Advertising and Promotion Costs on Company Value

The next hypothesis is, which states that research and development costs, advertising and promotion costs do not affect the company's value in non-cyclical consumer sector companies listed on the IDX for the 2019-2023 period. However, it is that research and development costs, advertising and promotion costs affect the company's value. The results of the stimulus test (F-test) in table 4.8 show that the calculated F value obtained is 5.985, which is greater than the F table, which is 3.16. Then the significance degree value obtained is 0.004, which is smaller than $\alpha = 0.05$. With these results, it is rejected and accepted. The results of this study support several previous studies that have been conducted, including research conducted by$H_0 3 H_a 3 H_0 3 H_a 3$The Last Supper (2020) explains thatresearch and development costs, advertising and promotion costshas a positive and significant effect simultaneously on company value.

5. CONCLUSION

1. Research and development costs have a positive and significant influence on the value of companies in the consumer non-cyclicals sector listed on the Indonesia Stock Exchange for the 2021-2023 period partially.

2. Advertising and promotion costs have a positive and significant influence on the value of companies in the consumer non-cyclicals sector listed on the Indonesia Stock Exchange for the 2021-2023 period partially.

3. Research and development costs, advertising and promotion costs have a positive and significant effect on the value of companies in the consumer non-cyclical sectors listed on the IDX for the 2019-2023 period simultaneously.

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