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Analysis of the Influence of COF, OPEX, TAC, And NCL on Profits, Relationship to the Industrial Revolution 5.0. On Financing Companies in Indonesia

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ABSTRACT

This research analyzes the influence of Cost of Funds (COF), Operating Expenses (OPEX), Total Acquisition Cost (TAC), and Net Credit Loss (NCL) on profits at PT. Adira Dinamika Multifinance Tbk, in relation to the Industrial Revolution 5.0. The data used are the company's financial reports for the 2010-2022 period. The analytical methods applied include classical assumption tests, multiple linear regression, coefficient of determination (R^2), and F and t statistical tests. The research results show that TAC has a significant influence on profits, while COF, OPEX, and NCL do not have a significant influence. These findings indicate that efficiency in customer acquisition strategies and the use of digital technology are the keys to increasing company profits. This research emphasizes the importance of integrating advanced technologies such as Artificial Intelligence (AI), Internet of Things (IoT), and blockchain in optimizing business processes, reducing costs, and improving risk management. The practical implication of this research is the need for finance companies to continue to innovate and adopt the latest technology to increase profitability in the era of the Industrial Revolution 5.0.

Keywords: Cost of Funds, Profit, Net Credit Loss, Operating Expenses, Industrial Revolution 5.0, Total Acquisition Cost.

INTRODUCTION

In this paper, we examine the effect of costs such as cost of funds, operating expenses, total acquisition costs and net credit loss on profits at PT. Adira Dinamika Multifinance. Tbk (Adira Finance) which is one of the largest finance companies in Indonesia which was founded in 1990. The data examined in this paper is for the period 2010 - 2022. Adira finance is a subsidiary of Bank Danamon which is also part of Bank MUFG which is one of the largest banks in the world today. Industrial Revolution 5.0 has brought significant changes in various economic sectors, including the financing industry in Indonesia. This era not only emphasizes automation and digitalization, but also collaboration between humans and machines to create greater added value. Finance companies, as one of the important pillars in supporting economic growth, must adapt to these dynamics to remain competitive and generate optimal profits.

One of the main challenges faced by finance companies is managing operational costs and credit risk effectively. Cost of Funds (COF), Operating Expenses (OPEX), Total Acquisition Cost (TAC), and Net Credit Loss (NCL) are key factors that can influence a company's profitability. COF reflects the

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Research Article

costs incurred to obtain funds, while OPEX describes daily operational costs. TAC covers costs incurred to acquire new customers, and NCL represents losses due to bad debts.

In the Industrial Revolution 5.0, finance companies are faced with new opportunities and challenges. On the one hand, advanced technologies such as artificial intelligence (AI), big data, and the Internet of Things (IoT) can help companies optimize business processes, reduce costs, and increase accuracy in risk management. On the other hand, increasingly fierce competition and demands to provide more personalized and efficient services require companies to continue to innovate.

This study aims to analyze the influence of Cost of Funds, Operating Expenses, Total Acquisition Cost, and Net Credit Loss on company profits, taking into account the context of the Industrial Revolution 5.0. By understanding the relationship between these factors, companies can formulate more effective strategies to increase profitability and competitiveness in this era full of technological and economic changes.

It is hoped that this research can contribute both academically and practically. Academically, this study will add to the literature regarding financial and risk management in the financing sector, especially in relation to the Industrial Revolution 5.0. Practically, the findings of this research can be a reference for finance company management in making strategic decisions to improve their financial performance.

LITERATURE REVIEW

Cost of Funds (COF) is the cost incurred by a finance company to obtain funds for its operations. A study by Berger and Udell (2006) shows that COF has a negative relationship with profitability, where the higher the COF, the lower the profit generated. In the context of the Industrial Revolution 5.0, financial technology (fintech) and digital platforms can help reduce COF through efficiency in fund collection and risk management. Research by Chen et al. (2020) highlight the role of blockchain and artificial intelligence (AI) in lowering transaction costs and increasing access to alternative funding sources. Septyanto et al. (2020) analyzed the influence of cost of funds on the profitability of finance companies in Indonesia. The research results show that the cost of funds has a significant negative influence on profits. This research explains that high costs of funds reduce a company's profit margin because these costs must be incurred before the company can generate income. This study recommends companies look for lower cost sources of funds to increase profitability.

Brigham & Houston (2021) in their book *Fundamentals of Financial Management* explained that the cost of funds is an important component in determining the profitability of a financial company. They state that companies with a high cost of funds tend to have pressure on profit margins, especially if the income generated is not enough to cover these costs. Therefore, effective management of fund costs is essential to maintain profitability. Gitman & Zutter (2015) in the book Principles of Managerial Finance highlight the importance of managing the cost of funds to increase company profits. They found that companies that are able to optimize the cost of funds through efficient funding strategies tend to have better financial performance. The study also emphasizes that a high cost of funds can be a significant financial burden, especially in a high interest rate environment.

According to Handayani & Susanto (2020), they conducted research on finance companies in Indonesia and found that the cost of funds had a negative influence on net profit. They explained that high funding costs reduce a company's ability to generate profits, especially if accompanied by high credit risk. This research suggests companies diversify funding sources and strengthen risk management to reduce the negative impact of cost of funds. Aditya & Putra (2019) in their research on factors that influence profits in finance companies found that cost of funds is one of the most significant variables. They state that companies with a low cost of funds tend to have higher profits because operational costs are more efficient. This study also emphasizes the importance of negotiating with financial institutions to obtain more competitive interest rates.

Operational Expenses (OPEX) includes operational costs incurred by financing companies, such as employee salaries, administrative costs and system maintenance. According to research by Sufian and Habibullah (2010), operational efficiency as reflected in low OPEX is positively correlated

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Research Article

with profitability. The Industrial Revolution 5.0 offers solutions to reduce OPEX through the implementation of intelligent automation systems, robotics and the Internet of Things (IoT). For example, the use of chatbots and AI systems can reduce customer service costs and increase productivity (PwC, 2021).

Gitman & Zutter (2015) explain that operating expenses have a significant influence on company profits. They stated that high operational costs can reduce profit margins if not managed well. However, companies that are able to optimize operational costs through efficiency and reducing unnecessary costs tend to have higher profitability. This study emphasizes the importance of effective operational cost management to increase profits. Sari & Nugroho (2019) conducted research on finance companies in Indonesia and found that operating expenses had a negative influence on net profit. They explained that high operational costs, especially those related to administration and maintenance, could reduce a company's net income. This research recommends companies to streamline operational costs through process automation and reducing unnecessary overhead costs. Aditya & Putra (2019) in their research on factors that influence profits in finance companies found that operating expenses are one of the significant variables. They state that companies with low operating costs tend to have higher profits due to better cost efficiency. This study also emphasizes the importance of controlling operational costs through strict budget planning and regular monitoring.

Total acquisition costs are the costs incurred by a company to acquire new customers or clients. These costs include marketing, sales and promotion costs. Kotler & Keller (2016) explain that total acquisition costs have a significant influence on company profitability. They state that high acquisition costs can reduce profits if not offset by adequate revenue from acquired customers. However, companies that are able to optimize acquisition costs through effective marketing strategies tend to have higher profitability. This study emphasizes the importance of measuring customer lifetime value (CLV) to ensure that acquisition costs are commensurate with the value of the customers acquired.

Wijaya & Pratama (2021) conducted research on finance companies in Indonesia and found that total acquisition costs had a negative influence on profits. They explain that high acquisition costs, especially those related to marketing and promotions, can reduce a company's net income. This research recommends companies to make acquisition costs efficient through the use of digital technology and data analysis to target potential customers more accurately. Aditya & Putra (2019) in their research stated that companies with low acquisition costs tend to have higher profits due to better cost efficiency. This study also emphasizes the importance of controlling acquisition costs through effective marketing strategy planning and regular monitoring of return on investment (ROI) from marketing activities.

Research by Louzis et al. (2012) found that high NCL can reduce profits due to increased loss allowance costs. Industrial Revolution 5.0 offers innovative solutions to reduce NCLs through the use of AI and predictive analysis in assessing credit risk. For example, an AI-based credit scoring system can increase accuracy in assessing borrower eligibility (Deloitte, 2022). Net credit loss reflects the losses experienced by the company due to bad or uncollectible credit. This variable is very relevant for financial and financing companies, because high net credit losses can reduce net income and profitability.

Saunders & Cornett (2018) explain that net credit loss has a significant influence on financial company profits. They stated that high credit losses could reduce net income and disrupt the company's financial stability. This study emphasizes the importance of effective credit risk management, including credit worthiness analysis and regular monitoring of the credit portfolio, to minimize net credit loss and maintain profitability. Handayani & Susanto (2020) conducted research on finance companies in Indonesia and found that net credit loss had a significant negative effect on net profit. They explained that high credit losses reduced company income because funds that could have been used to generate profits were lost due to bad credit. This research recommends companies to strengthen credit risk assessment systems and increase monitoring of debtors to reduce net credit loss. Aditya & Putra (2019) in their research on factors that influence profits in finance companies found that net credit loss is one of the most significant variables. They stated that companies with low net credit losses tend to have

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Research Article

higher profits because the income generated is not eroded by credit losses. This study also emphasizes the importance of diversifying credit portfolios and implementing strict collection policies to minimize the risk of bad loans

Profit is the main indicator of a company's financial performance, including finance companies. Profit reflects the company's ability to generate profits from its business operations. In finance companies, profits are influenced by various factors, such as credit risk management, operational cost efficiency, and funding strategy. The Industrial Revolution 5.0 emphasizes collaboration between humans and technology to create added value. In finance companies, this can be realized through the integration of advanced technologies such as AI, IoT and blockchain to increase operational efficiency, reduce costs and manage risk. A study by the World Economic Forum (2021) shows that companies that adopt the principles of the Industrial Revolution 5.0 tend to have better financial performance.

VARIABLE DATA AND ANALYSIS METHODS

The data we use in this research is secondary data obtained from the company's annual report and financial reports taken from the official website of the PT Company. Adira Dinamika Multifinance. Tbk, for a period of 13 years (2010 – 2022), was chosen with the consideration that this company is one of the largest with the fastest growth in Indonesia whose management is in line with the Industrial Revolution 5.0.

Table 1. Research Data and Variables

(COF, Opex, TAC, NCL, dan Laba bersih dalam juta)

NO	TAHUN	COF (X1)	OPEX (X2)	TAC (X3)	NCL (X4)	LABA (Y)
1	2010	134.991	1.466.560	170.445	193.466	1.467.906
2	2011	533.215	2.090.695	110.599	457.465	1.583.321
3	2012	1.193.106	2.713.934	200.111	749.855	1.418.638
4	2013	1.670.513	2.656.833	176.647	1.278.431	1.707.205
5	2014	2.261.879	2.889.117	230.419	1.809.170	792.165
6	2015	2.197.885	2.847.322	282.506	1.778.058	664.836
7	2016	1.937.419	2.834.314	271.435	1.652.402	1.009.351
8	2017	1.796.061	3.119.530	437.901	1.661.415	1.409.150
9	2018	1.737.669	3.474.709	722.907	1.763.901	1.815.263
10	2019	1.977.700	3.724.613	768.918	1.987.359	2.108.691
11	2020	1.782.414	3.557.098	445.301	2.173.497	1.025.573
12	2021	1.073.499	3.802.483	415.088	1.790.616	1.213.316
13	2022	700.133	3.691.489	682.560	1.255.670	1.605.555

Source: Company financial reports (www.adira.co.id)

The analytical method used in this research is:

1. Test classical assumptions
2. Multiple linear regression test
3. Coefficient of determination R Square
4. F statistical test
5. Statistical test t

RESULTS AND DISCUSSION

1. Test classical assumptions

The classic SPSS assumption test in this research is used to ensure that the regression equation has constant, unbiased and accurate results in making estimates. Because this research is a type of quantitative research, the Classical Assumption Test is an obligation, because if it does not exceed this statistical method then the regression model that has been tested will not meet the requirements. The classical assumption test in this research was carried out using the Kolmogorov-Smirnov normality test and the normal probability test (P-P Plot)

Journal of Information Systems Engineering and Management
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Research Article

Table 2. Kolmogorov-Smirnov Normality Test Results

One-Sample Kolmogorov-Smirnov Test

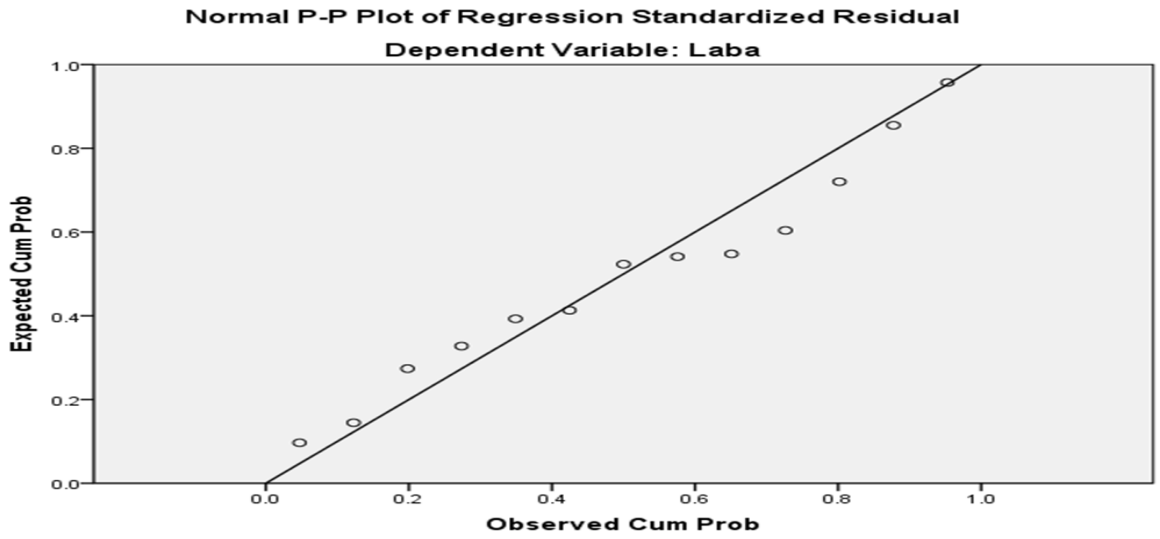
		Cost of Fund	Operating Expenses	Total Acquisition Cost	Net Credit Loss	Laba
N		13	13	13	13	13
Normal Parameters[a],b	Mean	1461268,00	2989899,77	378064,38	1427023,46	1370843,85
	Std. Deviation	672947,599	685370,744	224174,930	609889,829	415982,226
Most Extreme Differences	Absolute	,237	,160	,204	,260	,152
	Positive	,117	,118	,204	,112	,104
	Negative	-,237	-,160	-,144	-,260	-,152
Kolmogorov-Smirnov Z		,856	,576	,734	,936	,548
Asymp. Sig. (2-tailed)		,456	,895	,655	,345	,925

a. Test distribution is Normal.

b. Calculated from data.

Based on the results of the normality test carried out, it shows that the value of Asymp. The sig of each variable (cost of funds, operating expenses, total acquisition cost, net credit loss and profit) is greater (>0.05), which means that the residual data is normally distributed, so the regression model is confirmed to be good.

Figure 1. Normal Probability Test Results (P-P Plot)



The output of the normal Probability Plot test results above shows that the data distribution follows a diagonal line, so it can be concluded that the data is normally distributed.

2. *Multiple linear regression test*

Multiple linear regression is a statistical method used to model the relationship between one dependent variable (response) and two or more independent variables (predictors). Multiple Linear Regression Analysis was carried out to determine the direction and how much influence the independent variable has on the dependent variable. In this regression we see how the independent variables cost of funds, operating expenses, total acquisition costs, and net credit loss affect profits. The results of this regression provide an overview of the strength of the relationship between costs related to company profits.

Journal of Information Systems Engineering and Management
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Research Article

Table 3. Regression Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1168009,232	646077,672		1,808	,108
	Cost of Fund	,263	,313	,425	,839	,426
	Operating Expenses	,149	,359	,245	,413	,690
	Total Acquisition Cost	1,679	,688	,905	2,442	,040
	Net Credit Loss	-,883	,524	-1,295	-1,686	,130

a. Dependent Variable: Laba

Table 3. above shows the constant value (α value) of 1168009.232 and for the cost of fund value β of 0.263, operating expenses β value of 0.149, total acquisition cost β value of 1.679, and net credit loss β value of -0.883. So the multiple linear regression equation can be obtained as follows:

$$Y = 1168009.232 + 0.263X1 + 0,149X2 + 1,679X3 - 0,883X4$$

The results of the analysis of this equation show that:

1. The constant value obtained is 1168009.232, so it can be interpreted that if the independent variable (X1, X2, X3, X4) namely the cost of funds, operating expenses, total acquisition costs and net credit loss has a value of 0 (constant), then the dependent variable (Y) namely Profit has a value of 1168009.232.
2. Value of the regression coefficient for variable X1 (CoF) has a positive (+) value of 0.263, so it can be interpreted that if the variable1 increases, the variable Y (Profit) will also increase, and vice versa.
3. Value of the regression coefficient for variable X2 (Opex) has a positive (+) value of 0.149, so it can be interpreted that if the variable2 increases, the variable Y (Profit) will also increase, and vice versa.
4. Value of the regression coefficient for variable X3 (TAC) has a positive (+) value of 1.679, so it can be interpreted that if the variable3 increases, the variable Y (Profit) will also increase, and vice versa.
5. Value of the regression coefficient for variable X4 (NCL) has a negative (-) value of 0.883, so it can be interpreted that if the variable4 increases, the variable Y (Profit) will decrease, and vice versa.

3. R-Square coefficient of determination

To find out the magnitude of the contribution of X to the rise and fall of the value of Y, it can be calculated from a coefficient of determination (R2), by squaring the coefficient found. The Coefficient of Determination aims to measure how much contribution or influence the independent variable has on the dependent variable simultaneously and its value ranges from 0 to 1.

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Research Article

Table 4. Coefficient of Determination Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.788[a]	,621	,432	313482,052

a. Predictors: (Constant), Net Credit Loss, Total Acquisition Cost, Cost of Fund, Operating Expenses

b. Dependent Variable: Laba

From the output above, we get an Adjusted R Square value (coefficient of determination) of 0.432, which means that the influence of variable X (COF, Opex, TAC, NCL) on variable Y (Profit) is 43.2%.

4. F Statistical Test

The simultaneous significant test (F test) essentially shows whether the independent variables included in the model have an influence together.

Table 5. F Test Results

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1290326572675,830	4	322581643168,959	3,283	.072[a]
	Residual	786167973959,858	8	98270996744,982		
	Total	2076494546635,690	12			

a. Predictors: (Constant), Net Credit Loss, Total Acquisition Cost, Cost of Fund, Operating Expenses

b. Dependent Variable: Laba

In the table above, the calculated F value is 3.283 < F table 3.97 with Sig. 0.072 > 0.05, it can be concluded that COF, Opex, TAC, NCL together do not have a significant effect on Profit.

5. Statistical Test t

The t test is a research hypothesis testing tool in simple linear regression analysis and multiple linear regression analysis. The t test aims to find out whether the independent variable or independent variable (X) partially influences the dependent variable or dependent variable (Y).

Table 5. t test results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1168009,232	646077,672		1,808	,108
	Cost of Fund	,263	,313	,425	,839	,426
	Operating Expenses	,149	,359	,245	,413	,690
	Total Acquisition Cost	1,679	,688	,905	2,442	,040
	Net Credit Loss	-,883	,524	-1,295	-1,686	,130

a. Dependent Variable: Laba

The results of the t test analysis of the COF, Opex, TAC and NCL variables on Profit are:

1. Sig value. variable X1 (COF) is 0.426 > 0.05, so it can be concluded that variable1 (COF) does not have a significant effect on variable Y (Profit).
2. Sig value. variable X2 (Opex) is 0.690 > 0.05, so it can be concluded that variable2 (Opex) has no significant effect on variable Y (Profit).

Journal of Information Systems Engineering and Management
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Research Article

3. Sig value. variable X3 (TAC) of 0.040 < 0.05, then it can be concluded that variable3 (TAC) has a significant effect on variable Y (Profit).
4. Sig value. variable X4 (NCL) of 0.130 > 0.05, then it can be concluded that variable4 does not have a significant effect on variable Y (Profit).

CONCLUSION

Based on the results of the analysis carried out in this research, it can be concluded that Cost of Funds (COF), Operating Expenses (OPEX), and Net Credit Loss (NCL) do not have a significant influence on profits at PT. Adira Dinamika Multifinance Tbk. This shows that factors such as cost of funds, operational costs and credit losses do not directly affect company profitability in the context of the Industrial Revolution 5.0. However, Total Acquisition Cost (TAC) is proven to have a significant influence on profits, indicating that the costs incurred to acquire new customers play an important role in increasing company revenues. These findings indicate that efficiency in customer acquisition strategies and the use of digital technology can be the key to increasing company profits.

Apart from that, this research also reveals that factors such as funding structure, management efficiency, and effective credit risk mitigation strategies play an important role in determining a company's financial performance. In the era of Industrial Revolution 5.0, the integration of advanced technologies such as Artificial Intelligence (AI), Internet of Things (IoT), and blockchain can help companies optimize business processes, reduce costs, and increase accuracy in risk management. Thus, finance companies need to continue to innovate and adopt the latest technology to remain competitive and increase profitability amidst ever-changing industry dynamics.

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