

Business Risk and Sales Growth on Financial Performance in Defense Industry Companies in Indonesia

Wulan Fitri Utami¹ Posma Sariguna Johnson Kennedy² Muliahadi Tumanggor³

Defense Economics Study Program, Faculty of Defense Management, Universitas Pertahanan
Republik Indonesia, Bogor Regency, West Java Province, Indonesia^{1,2,3}

Email: wulanfitri22@gmail.com¹ posmahutasoit@gmail.com²
muliahadi.tumanggor@idu.ac.id³

Abstract

An independent and strong defense industry can support the development of defense forces and the economy. Where in reviewing its development can be seen through its financial aspects or the company's financial performance. Assessment of financial performance can be seen from the level of profit or profitability that has been achieved by the company in carrying out its operational activities. The purpose of this study was to determine the effect of business risk and sales growth on the financial performance of defense industry companies in Indonesia for the 2011-2020 period. This research is a quantitative research with a sample focused on 5 defense industry companies which are members of DEFEND ID. The analysis used is multiple linear regression. The results showed that partially business risk has an effect on financial performance while sales growth has no effect on financial performance. Meanwhile, business risk and sales growth simultaneously affect the company's performance, with a coefficient of determination of 89.4%.

Keywords: Business Risk, Sales Growth, Financial Performance, Defense Industry



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

INTRODUCTION

The main and most basic goal of a company is to gain profit from the running of the business being managed. Therefore, companies will be required to continue to develop innovation, improve performance, and expand their business in order to maintain their business in market competition. This is inseparable from the BUMN defense industry which is also oriented towards maximizing company profits. Where is the existence of state-owned defense industry which aims to support the national defense force in fulfilling defense equipment to deal with all threats, for the integrity of the Unitary State of the Republic of Indonesia. Purchase of military equipment requires a lot of money, therefore it is important for the domestic industry to be able to support the fulfillment of the needs for Defense and Security Equipment Tools (Alpahankam). As meant in Law No. 16 of 2012, the Defense Industry that the Defense Industry can include: a) main equipment industry, b) main and/or supporting component industry, c) component and/or support industry (supplies) and d) material industry raw. It is important to be able to develop a strong and independent defense industry. Through an independent defense industry it is hoped that it can provide a multiplier effect for the defense sector and economic development.

Not only does it require good planning, but also an effective and efficient financial system and budget in building the defense industry (Hidayat et al., 2022). In reviewing the development of a company, one can see it through its financial aspects which can be projected in financial reports (Nugraha et al., 2020). Because the ability level of a company can be judged by how well the performance of the company is. So it takes a harder effort from the management to be able to improve the company's performance, which can be reflected in the company's profit (Fahmi, 2012). Decisions made by financial managers must be right in order to create

added value for the company in maximizing its performance. This can be seen from the company's financial statements and from the analysis of these financial statements. Where in the financial statements information is presented that describes the condition of a company which will then become a description of the company's performance (Fahmi, 2012). Financial performance is an achievement achieved by a company that reflects the soundness of the company in a certain period (Sutrisno, 2012). Assessment of financial performance for companies is very useful to find out to what extent the success achieved by the company can continue to increase. Basically the assessment of the company's financial performance can be seen from the level of profit or profitability that has been achieved by the company in carrying out its operational activities. So it becomes important to continue to maintain the company's better performance to support the company's survival in the long term.

In the defense industry, which can be said to be an industry with quite high research-intensive, of course, the acquisition of profit is important to support the production of defense equipment. In assessing the acquisition of company profits or profits, it can be measured through the profitability ratio, which according to Kasmir (2018) the profitability ratio is the ratio used to assess the company's ability to earn profits/profits. One of the commonly used profitability ratios is ROA, which can reflect the company's use of its assets and is used to show how much the contribution of assets is in creating net income. The higher the return on assets shows that the higher the amount of net profit generated for every rupiah embedded in assets and vice versa (Hery, 2014).

To be able to improve company performance, of course the management will determine the strategy that must be pursued within a certain period of time. In an effort to improve the company's financial performance in obtaining optimal profits, this can be done through increased sales. Through product sales, the company determines its sales strategy to be able to increase sales, because higher sales indicate that the company is performing well, thereby encouraging company profits to increase (Putri & Rahyuda, 2020). Companies with high sales growth rates will require more investment to support ongoing business activities in both current and fixed assets (Valentina & Ruzikna, 2017). Through increased sales growth, it can be used as an aspect in assessing that the company has increased financial performance and vice versa, because this affects the company's profit (Pratama & Devi, 2021).

Every company in running its business will certainly not be separated from the risks that may arise in the process. To anticipate this, companies need to analyze various possibilities that have the potential to experience losses. Where business risk is a risk faced by the company with the possibility that the company cannot finance its business operations (Gitman, 2012). These things can arise at any time with a variety of causative factors, which requires companies to always be aware of various risks. The risk itself can arise along with the emergence of cost requirements for the company, if the costs required are high, the risks that must be borne and faced will be even higher. Business risk is a company's financial condition that is not safe so that it can cause a decrease in company performance (Mnune & Purbawangsa, 2019).

This research was conducted because there are still state-owned enterprises, especially the defense industry, which suffer losses. There are even several BUMNs that are still experiencing losses even though they have been given capital injections from the government, namely PMN, including PT. Dirgantara Indonesia, PT. PAL also PT. Dok Kodja Bahari (Idris, 2019). In this study, the focus will be on state-owned companies, namely the defense industry members of Defend ID, namely PT. Pindad, PT. LEN, PT. Dirgantara, PT. PAL and PT. Dahana. Furthermore, the five state-owned companies will be tested for the effect of business risk and growth sales on the company's financial performance in defense industry companies.

Based on the description that has been explained above, the formulation of the problem in this study includes: Does business risk affect the financial performance of defense industry companies in Indonesia? Does sales growth affect the financial performance of defense industry companies in Indonesia? and do business risks and sales growth simultaneously affect the financial performance of defense industry companies in Indonesia?

RESEARCH METHODS

In this study using a type of quantitative research with secondary data as a data source. The secondary data used in this study are the financial statements of BUMN contained in the Central Government Financial Statements for the 2011-2020 period. This study aims to examine the effect of the influence of business risk and sales growth on financial performance in the defense industry for the 2011-2020 period. The samples taken were five defense industry companies which are members of DEFEND ID namely PT Pindad (Persero), PT PAL Indonesia (Persero), PT. LEN Persero, PT. DAHANA and PT. Indonesian Aerospace.

Sales growth is an important indicator in an industry because it involves productivity and revenue for the company. According to Kasmir (2018) sales growth is a ratio that reflects the company's ability to maintain its economic position in the midst of the economy and its business sector. The formula for calculating it is $\text{Sales Growth} = (\text{Sales } t - \text{Sales } t-1) / \text{Sales } t-1$. While business risk according to Horne & Wachowicz, 2005 in Valentina & Ruzikna, (2017) is an uncertainty faced by a company in running its business, and can be measured by the variability of EBIT (earning before interest and taxes) profits generated by the company's asset portfolio and market activity product. Meanwhile, according to Ambarwati (2010) Business risk is the uncertainty of the company's future earnings estimates so that it can cause the company's inability to finance its operations. Uncertainty in business needs to be minimized by companies that have high risk in order to maintain good performance.

The way to measure business risk is as follows: $\text{Business Risk} = \text{EBIT} / \text{Total Assets}$. Meanwhile, the financial performance is proxied by the profitability ratio, namely Return On Assets (ROA). ROA is a ratio that can show the results of obtaining profit on the use of assets owned by the company (Kasmir, 2018). So that way ROA can describe how much the contribution of assets in generating profits. The calculation formula for ROA is as follows: $\text{ROA} = \text{Net Profit After Tax} / \text{Total Assets}$. To analyze the data obtained, the method used multiple linear regression analysis and then perform the classical assumption test, partial test, simultaneous test and test the coefficient of determination.

RESEARCH RESULTS AND DISCUSSION

Research Result

In this study, the sample data used were from five companies with a period of 10 years, so the sample used was 50 observational data. In the data processing process, data is found that must be processed outliers. Where according to Ghozali (2016) outliers are cases or data that have unique characteristics that look very different from other observations and appear in the form of extreme values for either a single variable or a combination variable. Therefore the researchers removed the existing outlier data so that the number of observations in this study were 47 during the 2011-2020 period so that as many as 3 data were considered as outliers. Then after eliminating the outlier data, the test was carried out again in this study, and the results of the descriptive statistics in this study are as follows:

Table 1. Results of Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
X1	47	-6.1	11.9	4.062	4.1531

X2	47	-42.6	853.0	33.777	125.9762
Y	47	-8.9	8.4	1.500	3.5383
Valid N (Listwise)	47				

In the table above it can be seen that the variable Y or financial performance which is proxied by ROA has a minimum value of -6.1; maximum 11.9; mean 4.06 and standard deviation of 4.1. For X1, namely business risk has a minimum value of -42.6; maximum 853; mean 33.7 and standard deviation of 3.5. Whereas for X2, namely sales growth, it has a minimum value of -8.9; maximum 8.4; mean 1.5 and standard deviation of 3.5.

Table 2. Regression Analysis Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.751	.243		-7.218	.000
	X1	.812	.043	.953	19.048	.000
	X2	-.001	.001	-.050	-.992	.327

From the above results it can be made that the regression equation in this study is as follows: $Y = -1.751 + 0.812 X1 - 0.001 X2 + \epsilon$. Based on the regression equation, the constant value (α) is -1.751, meaning that if business risk (X1) and sales growth (X2) are 0, then ROA is -0.1751 units. The value of $\beta_1 = 0.812$ This means that if the business risk variable increases by 1 unit, the sales growth variable remains constant, then the direct ROA increases by 0.812. The positive sign means a unidirectional relationship. The value of $\beta_2 = -0.001$ indicates that if the sales growth variable increases by 1 unit, the ROA will decrease by 0.001. Furthermore, the classical assumption test consists of the Normality Test, Multicollinearity Test, Heteroscedasticity Test, and Autocorrelation Test.

Normality Test

Table 3. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandarized Residual
N		47
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.15444856
Most Extreme Differences	Absolute	.123
	Positive	.066
	Negative	-.123
Test Statistic		.123
Asymp. Sig. (2-tailed)		.073 ^c

Testing the normality of the research data used the Kolmogorov Smirnov method with a value of $0.73 > 0.05$. This shows that all data in the regression equation model is normally distributed.

Multicollinearity Test

Table 4. Multicollinearity Test

Collinearity Statistics			
Model		Tolerance	VIF
1	X1	.966	1.035
	X2	.966	1.035

The results above can be said to be free of multicollinearity if the VIF value is < 10 . As can be seen in the table, the VIF values of the two variables have a value of < 10 . So the data can be said to be free of multicollinearity.

Heteroscedasticity Test

Table 5. Heteroscedasticity Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.892	.153		5.847	.000
	X1	.004	.027	.024	.160	.873
	X2	-.001	.001	-.141	-.929	.358

Based on the picture above, it shows that the significance value for the business risk variable (X1) is 0.873, for the sales growth variable (X2) is 0.358, each of these independent variables shows a value greater than 0.05. This shows that the regression model is free from heteroscedasticity symptoms.

Autocorrelation Test

Table 6. Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.945 ^a	.894	.889	1.1804	1.939

It can be seen that Durbin Watson with a value of 1.939 has a value of $dl=1.4435$ $du=1.6204$. Then the dw value is at $du < d < 4 - du$ or $1.4435 < 1.939 < 2.3796$ so that it can be said that there is no autocorrelation.

Hypothesis Testing

Table 7. Simultaneous Test

ANOVA ^a						
	Model	Sum of Squares	df	Mean Squares	F	Sig.
1	Regression	514.539	2	257.297	184.663	.000 ^b
	Residual	61.307	44	1.393		
	Total	575.900	46			

From the results above, the processing of the F test data shows that the calculated F value is 184.663 with a value of 0.000 which is smaller than $\alpha = 0.05$, which means that the model used in this study is feasible so that it can be concluded that all independent variables, namely business risk and growth Sales have a joint effect on financial performance. For the t partial test in this study to see the effect with the condition that the significant value is < 0.05 . Looking at the test results from Table 2, it shows that (X1) business risk on financial performance has a value of $0.00 < 0.05$, which means that business risk has an effect on financial performance. Furthermore, sales growth (X2) on financial performance has a value of $0.327 > 0.05$, which means that sales growth has no effect on financial performance in the defense industry.

Table 8. Determination Coefficient Test

Model	R	R Square
1	.945 ^a	.894

Furthermore, the coefficient of determination in this study shows an R^2 value of 0.894 which means that the fit of the model between business risk variables (X_1) and sales growth (X_2) on financial performance is 89.4% and the remaining 10.6% is explained by other variables that not examined in this study.

Discussion

The results of the study show that business risk has an effect on financial performance. The influence in this study shows that if the business risk variable increases, financial performance can also increase. The high business risk is due to the high interest costs on the increased debt that needs to be paid by the company, so that funding tends to use external rather than internal funds in making investments (Turiastini & Darmayanti, 2018). This indicates that state-owned defense industry companies still often require injections of funds from external or the state in financing their operations. Because the costs required for production in the defense industry are very large, including research until the product is ready for use. In this case it shows, if the company wants to increase the profitability of its performance, it will also be faced with a higher level of business risk.

Sales growth has no effect on financial performance. So the financial performance proxied by ROA in the defense industry is not affected by the level of sales growth. These results are in line with those carried out by Tasmil et al., (2019) that sales growth has no effect on financial performance. This may indicate that in the defense industry sales growth is not stable so that it has not been able to make a real contribution to financial performance as proxied by return on assets. Where, when viewed from the type of industry, the defense industry has fewer consumers than industry in general, because the products are in the form of defense equipment and defense equipment, which in fact not just any consumer is allowed to have them. Then the limited production capacity allows the company to take approximately 5-7 years for production to obtain returns (Hidayati et al., 2022). So that companies need more time to obtain returns, therefore companies also need to think about business alternatives such as implementing the concept of dual-use technology. So that its activities do not depend much only on orders for defense and security equipment, but can be broader in reaching the civilian market.

CONCLUSION

Based on the results of the discussion that has been carried out, several conclusions can be drawn, namely, the first is that business risk variables have a significant effect on financial performance. So that the greater the business risk, the company's financial performance can improve. The two variables of sales growth have no effect on financial performance. Therefore, sales growth or increase cannot be a driving force for improving the defense industry's financial performance. Simultaneously or together, business risk variables and sales growth have an effect on the defense industry's financial performance for the 2011-2020 period with an R^2 value of 89.4%.

BIBLIOGRAPHY

- Ambarwati, S. D. A, 2010, *Manajemen Keuangan Lanjut*. Yogyakarta: Graha Ilmu.
- Fahmi, Irham, 2012, *Analisis Kinerja Keuangan*. Bandung: Alfabeta
- Ghozali, Imam, 2016, *Aplikasi Analisis Multivariete Dengan Program IBM SPSS 23*. Semarang: Badan Penerbit Universitas Diponegoro.
- Gitman, L. J., & Zutter, C. J., 2012, *Principles of Managerial Finance*. 13th Edition. Global Edition: Pearson Education
- Hery, 2014, *Analisis Laporan Keuangan*. Jakarta : PT Bumi Aksara

- Hidayat, M., Hermanto, D., & Murtiana, S. (2022). Pengaruh Debt To Equity Ratio dan Pertumbuhan Aset Terhadap Kinerja Keuangan pada Perusahaan Industri Pertahanan Indonesia. *Jurnal Penelitian Dan Pengabdian Masyarakat Indonesia*, 1(1), 120–126.
- Hidayati, D. Nuril, Siahaan, T., & Widodo, P. (2022). Analisa Pembentukan Holding Company Industri Pertahanan Dalam Mendukung Kesiapan Operasional Tentara Nasional Indonesia. *Jurnal Industri Pertahanan*, 3(1), 1–13.
- Idris, M. (2019). Daftar 7 BUMN yang Tetap Rugi Meski Sudah Disuntik PMN.
- Kasmir, 2018, Analisis Laporan Keuangan, Depok: PT Raja Grafindo Persada.
- Mnune, T. D., & Purbawangsa, I. B. A. (2019). Pengaruh Profitabilitas, Leverage, Ukuran Perusahaan Dan Risiko Bisnis Terhadap Kebijakan Dividen Pada Perusahaan Manufaktur. *E-Jurnal Manajemen Universitas Udayana*, 8(5), 2862.
- Nugraha, A., Djurwarsa, T., & Mayasari, I. (2020). Analisis Tingkat Kesehatan Kinerja Keuangan Perusahaan BUMN Bidang Industri Pertahanan (Indhan) Indonesia Periode 2015-2019. *Indonesian Journal of Economics and Management*, 1(1).
- Pratama, P. B., & Devi, S. (2021). Pengaruh Struktur Modal, Pertumbuhan Penjualan Dan Manajemen Laba Terhadap Kinerja Keuangan Pada Perusahaan Manufaktur Sub Sektor Logam dan Sejenisnya Yang Terdaftar di Bursa Efek Indonesia Tahun 2016-2018. *Jurnal Ilmiah Mahasiswa Akuntansi*, 12(2), 394–402.
- Putri, I. G. A. P. T., & Rahyuda, H. (2020). Effect of capital structure and sales growth on firm value with profitability as mediation. *International Research Journal of Management, IT and Social Sciences*, 7(1), 145–155.
- Sutrisno. 2012. Manajemen Keuangan Teori Konsep dan Aplikasi. Yogyakarta: Ekonisia
- Tasmil, L. J., Malau, N., & Nasution, M. (2019). Pengaruh Pertumbuhan Penjualan, Current Ratio, Debt to Equity Ratio terhadap Kinerja Keuangan PT.Sirma Pratama Nusa. *Jesya (Jurnal Ekonomi & Ekonomi Syariah)*, 2(2), 131–139
- Turiastini, M., & Darmayanti, N. P. A. (2018). Pengaruh Diversifikasi Dan Risiko Bisnis Terhadap Kinerja Keuangan Perusahaan Sektor Aneka Industri Di Bei. *E-Jurnal Manajemen Universitas Udayana*, 7(1), 251.
- Undang-Undang Nomor 16 Tahun 2012 tentang Industri Pertahanan
- Valentina, H., & Ruzikna. (2017). Pengaruh Struktur Modal, Risiko Bisnis, Pertumbuhan Penjualan Dan Ukuran Perusahaan Terhadap Kinerja Keuangan Pada Perusahaan Sub Sektor Real Estate Dan Properti Yang Terdaftar Di Bursa Efek Indonesia Tahun 2015-2019. *Jurnal Akuntansi Dan Keuangan Daerah*, 4(2), 1–15.