External factors, leverage, and banks' performance: Does risk matter?

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Abstract

This study aims to analyze the risk variables as an intervening factor between external factors and leverage on the financial performance of banking companies in the Indonesian Capital Market. In this study, 45 banking sector companies became the population. The sampling technique was purposive sampling, so the samples were 5 companies for 3 years. The data analysis technique in this study uses SmartPLS. The results show that the t-count coefficient is greater than the t-table, indicating a significant effect of external factors on risk in the company. There is no significant effect of leverage on risk with a t-count value smaller than the t-table. External factors significantly affect financial performance, with a coefficient value of t-count greater than t-table. There is a significant effect of leverage on financial performance, with a t-count coefficient value more significant than the t-table. The risk significantly affects financial performance, with a t-count coefficient value more significant than the t-table.

Keywords: External factors; leverage; risk; financial performance; banking sector

1.   Introduction

Bank is one of the sectors providing capital services. This capital will be channeled individually as a credit to the community and as business entities aiming to meet needs and increase production. Banks provide payment systems for sectors that need them in the economy so that these sectors can develop properly and are expected to benefit economic growth in a country. Funds channeled to the community through credit are not capital from the bank itself but from the community who entrust some of their money to be saved at the bank. Public funds in banks are bank loans, so if they are not disbursed in the form of credit, it will burden the bank. Every time there is additional debt, it will reduce the company's performance (Sabrin *et al.*, 2016).

In all companies, two types of external factors will affect the company's survival. External factors in the company are divided into two types, namely micro and macro. Micro external factors are in scope, such as market opportunities, competitors, labor, and suppliers. At the same time, macro external factors are beyond the company's control, including technological developments, socio-cultural environment, and economic variables. Internal and external factors significantly affect financial performance (Brigham and Houston, 2018).

This research focuses more on external macroeconomic factors, namely interest rates and inflation. The level of interest rates can serve as a guideline for investors in making investment decisions in the capital market. Bank Indonesia has announced that the latest benchmark interest rate to replace the BI Rate is the BI-7 Day Reverse Repo Rate (BI7DRR), effective August 19, 2016. On the other hand, the new reference instrument, the BI 7-Day Repo Rate, is more closely related to money market interest rates, can be traded in the market, and encourages the deepening of the financial market. Interest rates and inflation are closely related. These two factors have an inverse correlation, meaning interest rates will decrease when inflation increases. Conversely, when interest rates decrease or are low, it can stimulate bank loan demand.

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In reality, the registered banking sector in the Indonesian Capital Market has yet to fully utilize external factors to promote progress and improve its financial performance. On the other hand, leverage is a ratio company uses to measure the extent to which assets are financed by debt capital. This allows the company to determine its obligations to other parties and assess the value of assets relative to the company's money. This ratio can be measured using two indicators: Debt to Assets Ratio (DAR) and Debt to Equity Ratio (DER).

So far, the banking world, especially banks listed on the Indonesian capital market, has yet to find an ideal combination of leverage to support their financial performance optimally. A high level of leverage will cause creditors to consider whether or not to continue providing loans to the company. However, if the company's profits are high, this risk will be reduced. Radja and Artini (2020) and Jihadi *et al.* (2021) stated that leverage is an important factor that affects a company's financial performance. This makes banking management continue to strive to reduce this level of risk, in various ways to stabilize the company's finances so that the leverage is not too high and the company is not the subject of consideration for creditors and investors.

Rapid developments in the corporate environment, both external and internal environment, and the dynamic development of the capital market industry cause risk. The risk will certainly occur in companies in the banking sector because investors will make a lot of investments and returns. One of the risks that is closely related to banking is capital market risk or investment risk. Systematic risk or market risk is inherent in security that arises due to macro factors or events outside the company.

Unsystematic risk is often referred to as corporate, unique, and specific risks. Unsystematic risk is a risk that can be avoided or can be diversified. Unsystematic risk can be diversified by forming a portfolio. Various efforts have been made by the banking itself and the government to synergize these multiple factors so that banking financial performance improves. The bank will continue to strive to stabilize its finances by enhancing financial performance and managing the risks it faces due to leverage, external and internal factors.

2. Literature review and hypothesis developments

External factors

External factors are data obtained from outside the company that has an influence on the survival of the company in the national economy and the international economy, namely the general environment, national economic environment, political economy policies, operational environment (competitor conditions, buyer power, threat of new entrants, and supplier power). According to Dang *et al.* (2020), Djashan (2019), and Ha and Minh (2018), external factors affect company operations and performance. The company's external factors are divided into two types, namely micro and macro.

Micro is the determinant of opportunities (market opportunities) and threats (threats from outside), while macro is where the company can only respond to the environment outside the company.
- Micro external environment. Micro external environment components, as follows: competitors, customers, labor market, financial institutions, and suppliers
- Macro external environment. The components of the macro external environment are as follows: development of technology (economic variables), socio-cultural environment, politics, and law.

Interest rates

The interest rate measures the income earned by the owners of capital. Interest rates are often referred to as deposit rates or investment rates. According to Boediono (2001), the interest rate is the price of using investment funds (loanable funds). The interest rate is one of the indicators in determining whether someone will invest or save. According to Sunariyah (2013), interest rates are the price of loans. Interest measures the cost of resources debtors use that must be paid to creditors. If the interest rate is too low, the amount of money circulating in society will increase because people will prefer to distribute their money in sectors that are considered productive, so inflation will increase.

BI 7-Day (Reverse) Repo Rate

Bank Indonesia strengthened the monetary operation framework by implementing a new reference interest rate or policy rate called the BI-7 Day Reverse Repo Rate (BI7DRR) to replace the BI Rate on August 19, 2016. This policy was one of the efforts to strengthen the monetary operations

program. Bank Indonesia introduced a new benchmark interest rate with the aim that policy interest rates can more quickly influence the money market, banking, and the real sector. The BI7DRR instrument is a new reference with a stronger relationship with money market interest rates. Because it is transactional or traded on the market encourages financial market deepening. The BI7DRR timeframe is shorter than the previous BI Rate. Therefore, banking institutions do not have to wait, for one year, to be able to withdraw their funds.

Inflation

Inflation is defined as the rate of increase in the price of goods in general that occurs in a certain period. The inflation rate is usually expressed in percent per year. According to Karim (2008), inflation is an overall increase in money that must be paid for goods and services. Meanwhile, according to Sundjaja and Barlian (2003), inflation is when the price level increases continuously and affects individuals, the business world, and the government. If the price increase only occurs for one type of goods and does not affect the prices of other goods continuously, then such an event is not referred to as inflation.

According to Sukirno (2006), inflation influences the unemployment rate. If the inflation rate increases, the prices of goods and services will also increase. The demand for goods and services will decrease and reduce the need for the required workforce, consequently increasing the number of open unemployed. According to Sukirno (2002), there are four types of inflation based on the level of severity, namely:
- Mild inflation (less than 10% per year).
- Moderate inflation (between 10% and 30% per year).
- Severe inflation (between 30% and 100% per year).
- Hyperinflation (more than 100% per year).

Leverage ratio

According to Kasmir (2009), the leverage ratio or solvency ratio is the ratio to measure the extent to which a company uses debt to finance its assets. In other words, the leverage ratio describes the total debt that the company bears compared to its assets. According to Munawir (2010), the leverage ratio is a ratio that indicates the extent to which a company utilizes debt as a source of funds. This ratio also illustrates the level of trust lenders have in the company.

According to Hery (2016), the company's financial managers use the leverage ratio to become a benchmark and decide on using loan funds. According to Kasmir (2016), using leverage ratios provides many benefits for both low and high ratios. The following are the types of leverage ratio measurements to determine the company's ability:
- Debt to Assets Ratio (DAR). The debt ratio is measured by comparing total debt with total assets. How to calculate the Debt to Assets Ratio (DAR) using the following formula:

$$DAR = \frac{Total\ Debt}{Total\ Assets}...(1)$$

- Debt to Equity Ratio (DER). This ratio is measured by comparing all company-owned debt, namely short-term and long-term debt, with all capital (equity). How to calculate the Debt to Equity Ratio (DER) using the following formula:

$$DER = \frac{Total\ Debt}{Equity}...(2)$$

Risk

Sugiyono (2009) states risk is the possibility of loss or variability of income associated with certain assets. Assets with a greater probability of loss are seen as having a more significant risk when compared to assets that have a smaller possibility of loss. Risk refers to the potential difference between the return earned and the return expected by the company.

Definition of risk according to Aziz and Minarti (2015), risk is all events in every activity of the Indonesian Stock Exchange that arise due to external and internal factors, which have the potential

to hinder the achievement of objectives. This risk arises due to the uncertainty of an economy that causes the rate of return or results from investments obtained to be different than expected (Hartono, 2003).

Types of risk according to Widioatmodjo (2015), the types of risks involved in stock investment are divided into 2, namely:

- Systematic risk (beta). This risk is called market risk because the impact will be felt by all economic actors in the market. Systematic risk is inherent in security due to macro factors or events outside the company. This risk is also known as market risk because it occurs due to the impact of a recent event that significantly affects the market. According to Samsul (2006), when systematic risk arises and occurs, all types of shares will be affected so that investment in one or more types of shares will not be able to reduce the losses that arise. A systematic risk measurement can be obtained by using the following formula:

$$Beta = Ki = Rf + \beta_1[E\ (Rm) - Rf]\ldots(3)$$

Information:

Ki	= The rate of return implied by investors in securities
Rf	= Risk-free rate of return
$\beta1$	= Securities beta coefficient i
E (Rm)	= Expected market portfolio return

- Unsystematic risk (standard deviation). This risk occurs due to random events, such as lawsuits, strikes, successful and unsuccessful marketing, winning or losing key contracts, and other adverse events. Unsystematic risk can be diversified by forming a portfolio. According to Buniarto (2008), unsystematic risk shows that the more the number of securities in the portfolio, the smaller this risk. This risk can be interpreted as the sensitivity level of the company's stock value. Diversification to eliminate this risk is significant for investors because it can minimize risk without reducing the return received. Unsystematic risk can be measured using the following formula:

$$SD = \sqrt{I = 1 \sum^2 \frac{[Ri - E\ (Ri)]^2}{(n-1)}}\ldots(4)$$

Information:

SD	= Standard deviation
1	= 1st value
E (R i)	= Expected value
n	= Number of observations

Financial performance

According to Fahmi (2011), financial performance is activity companies use to measure achievements in using capital and assets effectively and efficiently, which are useful for achieving the company's main goals. The company's financial performance is a benchmark for assessing how well it manages its assets to generate profits. According to Yuwono and Ichsan (2003), the assessment of whether or not financial performance is good can be measured using financial ratios. Meanwhile, according to Jumingan (2014), financial performance describes a company's financial condition in a certain period, both regarding stored funds and channeled funds, as measured by financial ratio indicators, including liquidity ratios, solvency, and profitability.

According to Hery (2016), there are four objectives for measuring financial performance. Assessment of the company's financial performance can be done by measuring using financial ratios. Financial performance indicators are:

- Return on Assets (ROA). According to Kasmir (2016), Return on Investment (ROI) is a ratio used to measure management's effectiveness in managing its investments from the entire company's operations. Return on Investment (ROI), or Return on Total Assets (ROA). ROI and

ROA can be generated using the formula:

$$ROI = \frac{(Total\ Sales - Investment)}{Investment}\ x\ 100\% ...(5)$$

$$ROA = \frac{(Profit\ after\ tax)}{Total\ Assets} ...(6)$$

- Earning per Share (EPS). According to Kasmir (2009), Earning per Share (EPS) is a measure to assess a company's ability to generate profits per share. The profit used for calculating EPS is net profit after tax. If the company's profit in a certain period is high, the profit distributed to shareholders will also increase. Meanwhile, according to Darmadji and Fakhrudin (2011), the measurement of earnings per share can be calculated using the following formula:

$$EPS = \frac{Net\ profit\ after\ tax}{Number\ of\ outstanding\ shares} ...(7)$$

Hypothesis developments

Several previous studies have stated that external factors affect company risk. This hypothesis is based on the current banking conditions, which experience intense competition in terms of management and services to the community. Therefore, banks become very sensitive to changes in external factors, which will indirectly affect the risk factors faced by the banking world today.
H1 There is an effect between external factors on risk.

Banks must be careful in managing leverage, bearing in mind that some of the bank's funds are public deposits, considered loans by banks, so they are very risky. Good debt management will encourage the bank's financial performance as a financial institution. But if it is wrong in debt management, it will harm the bank. Using debt in bank operations is very profitable, but the risk is also increasing.
H2 There is an effect between leverage on risk.

External factors, in the form of unstable interest rates and inflation, will be very detrimental to the financial performance of banks. Banking management must be able to take advantage of fluctuations in external factors to support its operations. Early anticipation of changes in various external factors is a must if the bank wants to survive in the current intense competition and provide the best service for the community.
H3 External factors affect financial performance.

Banks that use too much-borrowed money and need help managing it properly will reduce their financial performance. Banking management realizes that if it uses prudent debt, it will be able to increase company profits, improving the bank's financial performance. But the use of debt in bank operations will also increase the risks banks face.
H4 Leverage affect financial performance.

The greater the risk, the better the bank's financial performance. However, if the risk is too significant, it will reduce the bank's financial performance. Risk is necessary if the bank wants to improve its performance. Increased risk will be directly proportional to the bank's financial performance if the risk is well managed. Banks must also consider that if the risk is too high and cannot be overcome, it is feared that it will reduce their financial performance.
H5 Risk affect financial performance.

3. Method
Scope and type of research

Researchers only focused on risk as an intervening between external factors and leverage on the financial performance of Banking Companies in the Indonesian Capital Market. This type of research is quantitative research. The type of research used is based on the source. The data used in the

study is secondary data obtained from the Annual Report data of banking companies registered on the Indonesian Capital Market for 2020-2022.

Data and collection techniques

The source of data used in this research is secondary data. The data is taken from the banking company's annual financial report data for 2020-2022. This study used purposive sampling to obtain financial reports from banking companies totaling 60 quarterly financial reports. The collection technique is by studying literature and documentation.

Variable identification and analysis techniques

This study's independent variables were External Factors and Leverage. This study's dependent variable is Financial Performance. In this study, the intervening variable used is Risk. In this study, the technique used is Partial Least Square (PLS). In processing data, researchers use the Smart PLS 3.0 application. The tests needed in the smart PLS 3.0 application are validity, reliability, and statistical collinearity tests.

Statistical collinearity test

According to Suliyanto (2011), the statistical collinearity test is conducted to determine whether there is a high or perfect correlation between the independent variables in the regression model. If, in the regression model, there is a high or perfect correlation between the independent variables, then the regression model is declared to contain multicollinear symptoms.

To test the symptoms of multicollinearity in the regression model by looking at the TOL (Tolerance) and Variance Inflation Factor (VIF) values of each independent variable on the dependent variable. If the VIF value is not more than 10 then the model does not contain multicollinearity.

Partial least square

According to Abdillah and Jogiyanto (2015), analysis using Partial Least Square is an analysis that uses multivariate statistical techniques that carry out a regression method to identify the combination factor of the independent variable as an explanation and the dependent variable as a response. PLS explains whether or not there is a relationship between latent variables and confirms the theory. In addition, the purpose of PLS is to predict the effect of variable X on Y, which explains the theoretical relationship between the two variables.

4.   Results and discussion

Data analysis

The data analysis technique in this study uses Partial Least Square (PLS). PLS is an analytical technique where the data does not have to contribute usually, and the sample in the research does not have to be large either.

Table 1. Path coefficients

Variable	External factors	Leverage	Risk	Financial performance
External factors			0.095	0.289
Leverage			0.079	0.150
Risk				0.476
Financial performance				

The Table 1. above shows the results of the PLS calculation regarding the relationship between the independent variables External Factors, Leverage, Risk, and Financial Performance. The PLS calculation results in the table above show that external factors affect risk by 0.095 and leverage affects risk by 0.079. External factors affect financial performance by 0.289, leverage affects financial performance by 0.150, and risk affects financial performance by 0.476. The interpretation of the results of the calculation of the influence between these variables will be described in the discussion of the study. To make it easier to see the results of the analysis can be seen in the image of the algorithm results as follows:
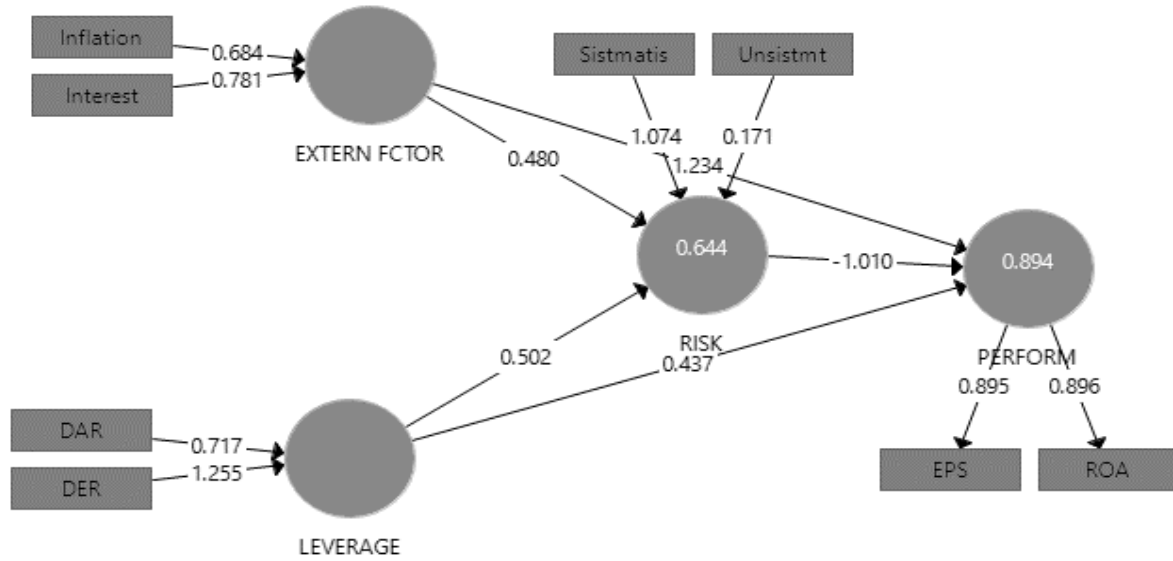
Figure 1. Results of algorithmic analysis

The data in the Figure 1. above shows the results of the calculation of the influence of each variable. The figure above also shows that the risk factor has the most significant effect on the financial performance of Banks in the Indonesian Capital Market, with a regression coefficient of 0.476. This condition is following the banking situation in Indonesia, considering that as a financial institution, which collects funds from the public and banks as a loan, the risks faced by banks will be higher. But the high risk can be managed well by the bank to increase profitability and bank financial performance. Print out the results of statistical calculations with PLS software, which also explains the effect of each variable in the study shown in the table below.

Table 2. Result of path coefficient calculation

Variable	Original sample	Sample average	Std dev.	t-statistics	p-value
External factors to risk	0.095	0.010	0.204	2.127	0.028
External factors to financial performance	0.289	0.018	0.289	2028	0.016
Leverage to risk	0.079	-0.054	0.219	0.185	0.633
Leverage to financial performance	0.150	0.220	0.186	2,711	0.042
Leverage to financial performance	0.476	0.150	0.426	2.108	0.038

PLS software bootstrapping calculations are the results of this research hypothesis test. The Table 2. above shows that four of the five hypotheses are accepted because they have a significant effect with a t-count greater than the t-table of 2.019 and a significance level smaller than 0.05. While one hypothesis is rejected because it is not significant, namely the effect of leverage on risk, with a t-count of 0.185, which is smaller than the t-table of 2.019 and a significance level of 0.633 (greater than 0.05). In addition, the PLS calculation also brings up the results of the hypothesis test calculations, as shown in the bootstrapping calculation image below:
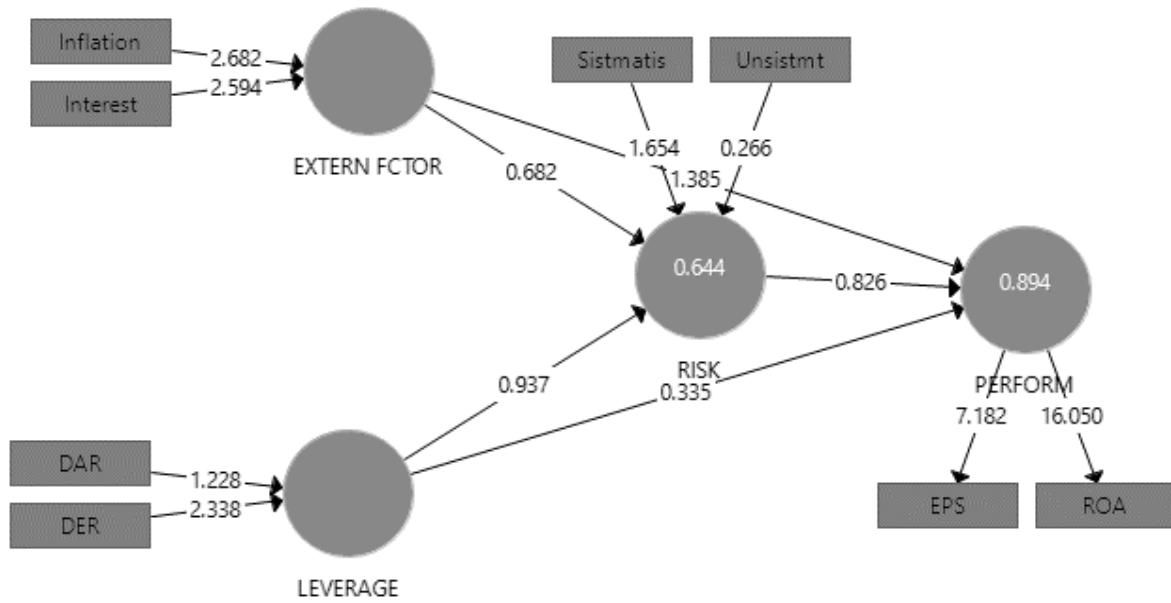
Figure 2. Bootstrapping calculation results.

The bootstrapping calculation above shows the hypothesis test, which analyzes the significance level of each variable, both the independent variable and the dependent variable. The Figure 2. above shows the magnitude of the influence and the results of hypothesis testing of the effect between variables in this study. The results of hypothesis testing show that external factors have a significant effect on risk; external factors have a significant effect on financial performance; leverage has an insignificant effect on risk; leverage has a significant impact on financial performance; and risk has a significant effect on financial performance. The explanation of the results of the PLS calculation above will be described in the discussion of this study.

Discussion

The effect of the external factors.1 indicator (interest rates) and the external factors have a value of 80.3%.2 indicator (inflation) is 82.6%. This shows that inflation has a more significant effect than interest rates because the monthly inflation rate fluctuates inconsistently or is too large so that banking companies will have an impact more quickly than the monthly interest rate, which fluctuates relatively stable. Besides that, the effect of the leverage.1 indicator (debt to assets ratio) is 99.3%, and the leverage.2 indicator (debt to equity ratio) is 5.6%. This shows that the debt-to-equity ratio has a more significant effect than the debt-to-assets ratio because the debt-to-equity ratio or the calculation of the extent to which the ratio of debt to equity, is significant for a company to measure its financial position. Equity or equity is the company's property, the net worth of the company's deposits and retained earnings.

Furthermore, the effect of the risk.1 indicator (systematic risk) is 96.3%, and the risk.2 indicator (unsystematic risk) is 10.5%. This shows that systematic risk has more significant effect than the effect of unsystematic risk, because systematic risk is a risk that a company cannot avoid. This risk will continue to affect the stock price and expected return expectations of the company. After that, the effect of the financial performance.1 indicator (return on assets) is 19.3%, and the financial performance.2 indicator (earnings per share) is 98%. This shows that earnings per share have a more significant effect than the effect of return on assets because earnings per share or earnings per share will indicate the extent to which profits will be given to shareholders so that later it will attract the attention of other investors. Good financial performance will show the results of high earnings per share.

On the other hand, testing the hypothesis is known how significant the P value of external factors is to risk with an error rate or alpha level of $0.028 \leq 0.05$, meaning that variable external factors has a significant effect on variable risk. The significance of this variable can also be seen from the t statistical value, which is greater than the t table, namely $2.127 \geq 2.000995$, so this effect can be said to have a significant impact. External factors include macroeconomics, namely inflation and interest rates related to systematic risk, a risk that the company cannot control. This risk comes from the company's external

environment, affecting portfolio risk or stock returns. Macroeconomic conditions will affect stock prices in the capital market, including inflation and interest rates, which are the factors that capital market players must monitor. The results of this study prove that fluctuations in the reference interest rate set by Bank Indonesia will significantly impact the financial performance of banks, so the banking world must be responsive and anticipate these changes as soon as possible.

Likewise, the development of inflation in Indonesia will impact bank operations. High inflation will cause interest rates to soar, and banks will have difficulty extending their credit due to the business community objecting to repaying their loans. The effect of variable external factor on variable risk shows a value of 0.095% so that the impact is positive or has meaning if the external factor increases by 100%, then the risk will also increase by 9.5%. This is because how big or small the influence of interest rates and inflation will affect how much risk the company will accept, both systematic and unsystematic risks. The effect of variable leverage on variable risk shows a value of 0.079%, so the impact is positive, or means if the leverage increases by 100%, the risk will also increase by 7.9%. This is because the higher the company's leverage or debt, the higher the use of debt in assets and capital. Investors in companies with high debt values believe the company will be at risk. But the results of this study indicate that there is no significant relationship between leverage and risk. This indicates that banks in Indonesia can manage their funds properly, following every regulation from Bank Indonesia and the Financial Services Authority, so that whatever the condition of the bank's leverage, it will not impact its financial performance. Influence of external factors on financial performance.

The effect of variable external factor on variable financial performance shows a value of 0.289% so the impact is positive or has meaning if external factors increase by 100%. Financial performance will also increase by 28.9%. The higher external factor will improve the company's financial performance. One indicator of the external factor is interest rates. If loan interest and savings rates are high, company activity will increase, so financial performance will also increase. The effect of variable leverage on variable financial performance shows a value of 0.150%, so the impact is positive or has meaning if leverage increases by 100%. Financial performance will also increase by 15%. This is because the higher the leverage, will improve financial performance. If the company has high leverage or debt and can pay off its debts quickly, it will have a positive value. The ease with which the company pays off debt will attract the attention of investors to invest in the company so that the company's financial performance will increase.

The effect of variable risk on variable financial performance shows a value of 0.476%, so the impact is positive or has meaning if the risk increases by 100%, then financial performance will also increase by 47.6%. This is because the higher the risk, will improve financial performance. If the company has high systematic or unsystematic risk, it will further enhance its financial performance so that it remains stable and does not experience a decline. The current banking situation in Indonesia is stable. Even when the COVID-19 pandemic occurred, no bank collapsed. All of this is inseparable from banking management and government policies that are responsive to the conditions that occur so that the risks faced by banks can also be minimized so that banking financial performance is maintained.

External factors and leverage affect the risk by 0.083, so the proportion of the effect is 8.3%, while the remaining 91.7% is influenced by other variables not analyzed in the study. The risks that occur in Indonesian banking are inseparable from external conditions. If economic conditions, both local and global, are unstable, it will increase the risks faced by banks. Moreover, banks that operate with public funds must maintain their maximum leverage so that their financial performance is not affected by the risks they face. External factors and leverage through the intervening risk variable affect financial performance by 0.351, which shows a relatively significant influence and needs special attention from banking managers in Indonesia.

These external factors and leverage can be considered fundamental factors for banking management to maintain the bank's financial performance. The bank does not create external factors but must be anticipated. Meanwhile, the leverage factor is an internal bank factor that will impact the bank's financial performance. Banks can optimize their financial performance if they are responsive to external factors and can manage their leverage properly, supported by good risk management. This means that from the start, the bank has anticipated various possibilities that will arise from external factors and leverage to maximize the bank's financial performance.

5.   Conclusion

This research on banking companies in the Indonesian Capital Market analyzes the effect of risk variables as an intervening factor between external factors and leverage on financial performance. Based on statistical analysis using PLS software tools on 45 samples from bank financial reports, the results show that: a) There is a significant effect of external factors on risk in the company, b) There is no significant effect of leverage on risk, c) External factors have a significant effect on financial performance, d) There is a significant effect of leverage on financial performance, e) Risk has a significant effect on financial performance.

Based on the findings in this study, it can be suggested that managers and decision-makers of banks listed in the Indonesian Capital Market should pay more attention and be more careful in managing risks in an effort to improve banking's financial performance. In addition, leverage and external factors (in the form of inflation, government policies, and interest rates) must also be considered in every banking decision because both factors have a significant influence on banking financial performance. Anticipation and good management of changes in external factors, leverage, and risk are expected to be able to improve banking operations, win competition, and foster public confidence to continue to deposit their funds in banks, which are also a source of banking funding.

To further complement this research, it is hoped that further researchers can develop this research in other industrial sectors by adding other variables such as liquidity, company value, etc. The development of further research is expected to not only support the results of this study but also to support the results of this study. Further research development is expected to not only support the results of this study but also yield findings that further enrich the repertoire of science in the field of financial management.

References

Abdillah and Jogiyanto. (2015), *Partial Least Square (PLS)*, Andi Offset.

Aziz and Minarti. (2015), *Manajemen Investasi Fundamental, Teknikal, Perilaku Investor dan Return Saham*, CV. Budi Utama, Sleman.

Boediono. (2001), *Ekonomi Makro (Seri Sinopsis Pengantar Ilmu Ekonomi No.2)*, 4th ed., BPFE UGM, Yogyakarta.

Brigham, E.F. and Houston, J.F. (2018), *Dasar-Dasar Manajemen Keuangan*, 14th ed., Salemba Empat, Jakarta.

Buniarto, E.A. (2008), "Pengaruh Struktur Modal, Kesempatan Investasi serta Kebijakan Keuangan Terhadap Risiko dan Kinerja Keuangan pada BUMN yang Diprivatisasi melalui Pasar Modal Indonesia", Vol. 4, pp. 101–128.

Dang, H.N., Nguyen, T.T.C. and Tran, D.M. (2020), "The Impact of Earnings Quality on Firm Value: The Case of Vietnam," *Journal of Asian Finance, Economics and Business*, Vol. 7 No. 3, pp. 63–72.

Darmadji and Fakhrudin. (2011), *Pasar Modal di Indonesia*, 3rd ed., Salemba Empat, Jakarta.

Djashan, I.A. (2019), "The Effect of Firm Size and Profitability on Firm Value with Capital Structure as Intervening Variables in Indonesia," *Journal of International Business, Economics and Entrepreneurship*, Vol. 4 No. 2, p. 55.

Fahmi, I. (2011), *Analisa Laporan Keuangan*, Alfabeta, Bandung.

Ha, N. T. Le and Minh, B. T. (2018), "Determinants of Firm Value in Vietnam: A Research Framework," *International Journal of Science and Research*, Vol. 9 No. 1, pp. 626–631.

Hartono, J. (2003), *Teori Portofolio dan Analisis Investasi*, 3rd ed., BPFE, Yogyakarta.

Hery. (2016), *Analisis Laporan Keuangan,* 1st ed., PT Grasindo, Jakarta.

Jihadi, M., Vilantika, E., Hashemi, S.M., Arifin, Z., Bachtiar, Y. and Sholichah, F. (2021), "The Effect of Liquidity, Leverage, and Profitability on Firm Value: Empirical Evidence from Indonesia," *Journal of Asian Finance, Economics and Business*, Vol. 8 No. 3, pp. 423–431.

Jumingan. (2014), *Analisa Laporan Keuangan*, Bumi Aksara, Jakarta.

Karim, A. (2008), *Bank Islam: Analisis Fiqih dan Keuangan*, 3rd ed., PT. Raja Grafindo Persada, Jakarta.

Kasmir. (2009), *Pengantar Manajemen Keuangan*, 1st ed., Prenada Media Group, Jakarta.

Kasmir. (2016), *Analisis Laporan Keuangan*, Raja Grafindo Persada, Jakarta.

Munawir, S. (2010), *Analisis Laporan Keuangan*, 4th ed., Liberty, Yogyakarta.

Radja, F.L. and Artini, L.G.S. (2020), "The Effect of Firm Size, Profitability and Leverage on Firm Value (Study on Manufacturing Companies Sector Consumer Goods Industry Listed in Indonesian Stock Exchange Period 2017-2019)", *SSRG International Journal of Economics and Management Studies*, Vol. 7 No. 11, pp. 18–24.

Sabrin, Sarita, B., Takdir, D. and Sujono. (2016), "The Effect of Profitability on Firm Value in Manufacturing Company at Indonesia Stock Exchange," *The International Journal Of Engineering And Science (IJES)*,

Vol. 5 No. 10, pp. 81–89.

Samsul, M. (2006), *Pasar Modal dan Manajemen Portofolio*, Erlangga, Jakarta.

Sugiyono. (2009), *Manajemen Keuangan untuk Praktisi Keuangan*, Grasindo, Jakarta.

Sukirno. (2002), *Teori Mikro Ekonomi*, 14th ed., Jakarta: Rajawali Pers, Jakarta.

Sukirno. (2006), *Mikro Ekonomi Teori Pengantar*, 3rd ed., Raja Grafindo Persada, Jakarta.

Suliyanto. (2011), *Ekonometrika Terapan Teori dan Aplikasi dengan SPSS*, CV Andi Offest.

Sunariyah. (2013), *Pengantar Pengetahuan Pasar Modal*, 6th ed., UPP STIM YKPN 79, Yogyakarta.

Sundjaja, R.S. and Barlian, I. (2003), *Manajemen Keuangan Satu*, 5th ed., Literata Lintas Media, Jakarta.

Widioatmodjo, S. (2015), *Pengetahuan Pasar Modal untuk Konteks Indonesia*, Kompas Gramedia, Jakarta.

Yuwono and Ichsan. (2003), *Petunjuk Praktis Penyusunan Balanced Scorecard*, Gramedia Pustaka Utama, Jakarta.