



## BUSINESS RISK ANALYSIS IN ARI WIBOWO'S CENTRAL TILE INDUSTRY IN LOHJINAWI VILLAGE, PRINGSEWU REGENCY IN 2018 - 2020

Wagiyo <sup>1)</sup>, Heri Setiawan <sup>2)</sup>

1,2) Faculty Of Economic And Business University Of Muhammadiyah Pringsewu

The Influence of  
Corporate Governance  
and Corporate Social  
Responsibility on Tax  
Aggressiveness

Submitted:

15 – Agustus - 2021

Revised:

24 – Agustus - 2021

Accepted:

23 – September - 2021



### ABSTRACT

Business risk is the potential deviation of corporate and financial results because the company enters a specific business with a typical industrial environment and uses certain technologies. In industry, so many decisions or actions must be made; it makes more and more risks. This research aims to determine how big the Business Risk Central Tile Industry is Ari Wibowo in Lohjinawi Village, Pringsewu Regency. The analysis was carried out descriptively, using the standard deviation of ROE, Financial Leverage, *Operating Leverage*, namely the sensitivity of EBIT to changes in the company's sales and Degree of Operation Leverage (DOL). The results of the analysis show that: 1) ROE has increased due to an increase in sales and an increase in EAT, and vice versa; 2) The use of debt can increase the Company's ROE; 3) Operating Leverage, where EBIT is very sensitive to changes in company sales; 4) Degree of Operating Leverage (DOL) measures what percentage of EBIT changes. From the results of data analysis, that Ari Wibowo's Central Tile Industry in Lohjinawi village, Pringsewu Regency from 2018 - 2020 shows that the Company is indicated by market risk, Financial risk, operational risk. And business risks.

**Keywords:** *Financial Leverage, Operating Leverage, Degree of Operating Leverage*

E-mail : <sup>1)</sup> [wagiyo61@yahoo.com](mailto:wagiyo61@yahoo.com) [heri1701022@gmail.com](mailto:heri1701022@gmail.com)

### INTRODUCTION

Business risk is the potential deviation of corporate results (company value and shareholder wealth) and financial results because the company enters a particular business with a typical industrial environment and uses certain technologies.

Business risk is a type of risk that cannot be transferred to other parties. Once the company goes into a specific business, then the company will immediately bear the business risk. The most important thing is how to ensure that management's appetite for risk continues to comply with the principle of higher risk, higher expected return, high-risk, high return.

Risk control as a determinant of overall risk management is the last step that the company must carry out after knowing the risks faced and analyzing these risks. Risk control can be defined as the efforts taken to anticipate the occurrence of the risk, both preventively and directly, when the risk occurs. Based on the description above, Business Risk Management plays an essential role in running the company's business to protect the company from threats that hinder the achievement.

Business risk is also experienced in the Ari Wibowo Central Tile Industry in Lohjinawi Village, Pringsewu Regency; this risk can be operational risk caused by changes in market conditions and customer demand, and the business economic environment.

This study aims to determine how much Business Risk is measured by 1) standard deviation of ROE (*Return On Equity*); 2) *Financial Leverage* in which the use of debt can increase the Company's ROE or vice versa; 3) *Operating Leverage* level, whether the Operating Profit (EBIT) is very sensitive to changes in the company's sales; 4) *Degree of Operating Leverage* (DOL) which measures the percentage change in EBIT if sales change. As a reason why you should choose Ari Wibowo Tile Central Industry in Lohjinawi Village, Pringsewu Regency. Since it is one of 32 roof tile industry entrepreneurs in Lohjinawi Village, Pringsewu Regency, was founded in 1987 with six types of roof tiles, which has the largest capacity of the other roof tiles industry in the village. Similarly, the Central Tile Industry located in Lohjinawi is a business engaged in manufacturing roof tiles. The primary raw material is clay processed through several stages until the tiles are ready to be sold. The amount of competition and the declining demand of society against the tile made of ground clay was replaced in popularity by the tile made of plastic and the like. So the company will face the risk of business in running the business, based on this background. Researchers are interested in studying the Business Risk In Industry Central Tile in Lohjinawi District Pringsewu from 2018 to 2020 to determine whether the Company can control business risk faced by various internal and external threats.

## LITERATURE REVIEW

### A. Risk management

#### 1. Risk management

A business activity (business) run by a company has several goals to be achieved by the owner and management. One of which is that the company owner wants optimal profits for the business that the owner runs. For the management, the profit obtained is the achievement of a predetermined plan (target). For this goal to be achieved, company management must understand the risks and be prepared to overcome these risks.

According to Fahmi (2018), "Risk management is a field of science that discusses how an organization applies measures in mapping various existing problems by placing various management approaches comprehensively and systematically."

According to Hubbard in Rustam (2017), "Risk Management is the process of identifying, assessing and prioritizing risks followed by the coordination and

application of economic resources to minimize monitoring, and overseeing the possibility of occurrence of unfavorable events."

According to Kerzner (Yasa, Dharma, & Sudipta, 2013), "Risk Management is a comprehensive set of policies and procedures that an organization has to manage, monitor and control risks that may arise. The risk management system identifies and calculates the risks and their effects on the project; the result is whether the risk is acceptable.

## 2. Types of Risk

According to Fahmi (2018), from a theoretical point of view, there are many types of risk, but in general, the risk is only known in 2 (two) types, namely pure risk, and speculative risk. The two types of risk are:

- a. Pure Risk, pure risk can be grouped into 3 (three) types of risk, namely:
  - 1) Physical Asset Risk is a risk that results in the loss of physical assets of a company/organization, for example, Fire, Flood, Tsunami, Volcanic Eruption, etc.
  - 2) Employee Risk is a risk due to what is experienced by employees who work in the company/organization. For example, work accidents so that the company's activities are disrupted.
  - 3) Legal Risk is a risk in the field of a disappointing contract, or the agreement does not go according to plan. For example, disputes with other companies so that there are problems such as compensation.
- b. Speculative Risk, this speculative risk can be grouped into 4 (four) risks, namely:
  - 1) Market Risk is the risk that occurs from price movements in the market. For example, the stock price has decreased, resulting in a loss.
  - 2) Credit Risk is the risk that occurs because the counterparty fails to fulfill its obligations to the company. For example, with the emergence of bad credit, the percentage of receivables increases.
  - 3) Liquidity Risk is a risk due to the inability to meet cash needs. For example, cash holdings decline not to pay debts properly, causing them to sell their assets.
  - 4) Operational Risk is a risk caused by operational activities that do not run smoothly. For example, there was damage to the computer due to various things, including being exposed to a virus.

## B. Business Risk

### 1. Understanding Business Risk

According to Djohanputro in Rustam (2017), "Business risk is the potential deviation of corporate results (company value and shareholder wealth) and financial results because the company enters a certain business with a typical industrial environment and uses certain technologies."

Business risk is a type of risk that cannot be transferred to other parties. Once the company goes into a specific business, then the company will immediately bear the business risk. The most important thing is how to ensure that management's appetite for risk continues to comply with the principle of higher risk, higher expected return, high-risk, high return.

Thus, it can be concluded that business risk is the risk associated with the company's competitive position and its prospects for growth in an ever-changing market. Today's business risk has become the primary concern of the company's

directors and commissioners. Business risks include short-term and long-term prospects for existing products and services.

## 2. Anticipate Business Risk

There are risks in the company that are difficult to control and threats that can be controlled by company management. According to Sobana (2018), the following are these risks and how to anticipate them:

- a. Risk in human resources aspect
- b. Risk on the financial aspect
- c. Risk in the marketing aspect
- d. Risks in the aspect of production/operations

## 3. Business Risk Measurement

With the operating leverage decision, the company will bear the risk, which is called business risk. Business risk can be interpreted in several ways. Business risk is defined as the variability of operating profit or earnings before interest and tax (EBIT) in a statistical approach. As for Business Risk, the measurement can be done by;

- a. The standard deviation of ROE (Return On Equity):

$$ROE = \frac{\text{Profit After Tax}}{\text{Private Capital}}$$

Which is influenced by several factors:

- 1) Demand variability, the more specific the demand for the company's product, all other things being equal, the lower the business risk.
  - 2) Price Variability. The easier the price changes, the greater the business risk.
  - 3) Variability of input costs. The less determining input costs, the greater the business risk
  - 4) Ability to adjust prices if there are changes in costs. The greater this capability, the smaller the business risk
  - 5) The level of use of fixed costs (Operating Leverage). The higher the operating leverage, the greater the business risk. In general, the larger the fixed expenses, the variable costs tend to be smaller (e.g., inexpensive investment machines will save the working hours of employees). On the other hand, small fixed costs generally carry high variable costs.
- b. Financial risk is an additional risk to the company due to the decision to use debt or the risk arising from the use of debt (Financial Leverage)

$$\text{Risiko Financial} = \sigma_{ROE(L)} - \sigma_{ROE(U)}$$

Where :

$\sigma_{ROE(L)}$  = Risk of companies using debt (Leverage Firm)

$\sigma_{ROE(U)}$  = Risk of companies that do not use debt (Unlverage Firm) or business risk.

$\sigma_{ROE(L)}$  is greater than  $\sigma_{ROE(U)}$  .

- c. Operating Leverage is the sensitivity of EBIT to changes in the company's sales. Operating leverage arises because the company uses fixed operating costs.

$$\text{Percentage change in EBIT} = \frac{(EBIT^1 - EBIT^0)^0}{(EBIT)^0}$$

- d. According to Rustam (2017), To measure the extent of business risk, the ratio also often used is the Degree of operating leverage (DOL). This ratio is the change in operating profit with the change in sales.

$$\text{Degree of operating laverage} = \frac{(EBIT 1 - EBIT 0) / EBIT 0}{(SALES 1 - SALES 0) / SALES 0}$$

Where :

- EBIT <sup>1</sup> = Operating profit after the change
- EBIT <sup>0</sup> = Operating profit before the change
- SALES <sup>1</sup> = Sales after the change
- SALES <sup>0</sup> = Sales before the change

Which one is better between high and low DOL depends on the type of company. Suppose a company has a high DOL but belongs to an industry whose sales are heavily affected by changes in general economic activity, such as the durable goods industry (machinery and automobiles). In that case, the company will experience significant changes in EBIT due to fluctuations in sales. However, even though the EBIT increases, the risk of the income stream also increases. The presence of high DOL means low variable costs.

It allows for aggressive pricing policies to increase profits. If competitors can't keep up with price reductions because their costs are high, this will benefit the company. Two factors influence the high and low DOL: the level of competition in the industry and the cost structure.

According to Djohanputro in Rustam (2017), "The tighter the competition, the smaller the margin the company will get."

Based on the description above, the following hypothesis can be drawn :

Hypothesis 1: Return on Equity influences Business Risk

Hypothesis 2 : Financial Leverage has a significant effect on Financial Risk.

Hypothesis 3: The use of fixed costs affects risk Income Before Interest and Tax (EBIT).

Hypothesis 4: That Changes in Sales either up or down Very influential Against Degree of operating leverage

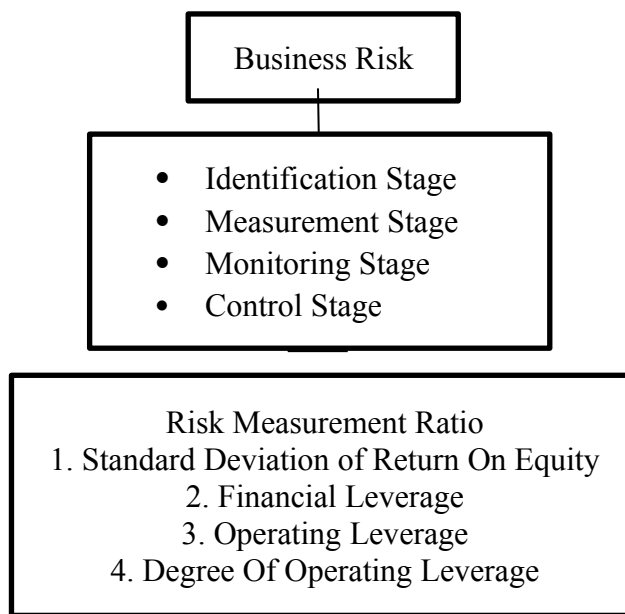
### C. Framework

In business, many decisions or actions must be made. It makes more and more risks that may occur as a result. The more chance there is, the more likely it is actually to happen. Therefore, proper business risk management must receive special attention in addition to credit risk and market risk.

Thus, Ari Wibowo's Central Tile Industry must also measure Business Risk to face competition in the business. The steps and methods have been determined by carrying out four stages or processes, namely: the identification stage, the measurement stage, the monitoring stage, and the risk control stage. To carry out good risk management, it is necessary to control these four stages.

The methods or ratios used in the measurement of business risk management are;

1. Standard Deviation of Return On Equity
2. Financial Leverage
3. Operating Leverage and
4. Degree Of Operating Leverage (DOL)



## RESEARCH METHODOLOGY

### A. Research methods

The research method used in this research is descriptive research, namely research conducted to determine the value of each variable, either one or more independent variables, to get an overview of these variables. This study describes risk management in the Industry Central Tile village Lohjinawi District Pringsewu.

### B. Variable Operational Definition

Risk management is the process of identifying, measuring, and determine the amount of risk, mitigate and develop strategies to minimize risks in the Industry Central Tile village Lohjinawi District Pringsewu using :

- a. This business risk is measured by the standard deviation of ROE (Return On Equity)
- b. Financial risk is the risk due to the use of debt or the risk arising from the use of debt (Financial Leverage)
- c. Operating Leverage is the sensitivity of EBIT to changes in the company's sales. Operating leverage arises because the company uses fixed operating costs.
- d. Degree of Operating Leverage (DOL). This ratio is the change in operating profit with the change in sales.

### C. Method of collecting data

The data collection method that the author uses in this study are as follows:

1. Interviews, with this method, researchers and business owners research to find out in-depth about the risks that exist in rice mills. This method produces data about the history of Industrial Central Tile village Lohjinawi District Pringsewu.
2. Documentation, in this method, researchers will get more in-depth information about Rice Milling from a financial perspective. These methods generate

information regarding the financial statements of Industrial Central Tile village Lohjinawi District Pringsewu.

#### D. Research Instruments

This study using the following instruments :

##### 1. Interviews

Interview guide instruments are prepared and developed according to the research problem, objectives, and variable indicators. The interview guide instrument was compiled and created as many as 13 questions to collect primary data on company history, team member data, company management, line of business, organizational structure, and other supporting data.

##### 2. Documentation by collecting secondary data in balance sheets, profit /loss reports, sales reports, and depreciation lists.

#### E. Population and Sample

The population of this research is to Financial Statements Industry Central Tile village Lohjinawi District Pringsewu year 2018 -2020.

In this study, the examples are Production and Sales Results Reports, Profit and Loss Reports, and Depreciation Reports for 2018 -2020.

#### F. Data analysis method

Data analysis in this study used :

##### 1. This business risk is measured by the standard deviation of ROE (Return On Equity)

$$ROE = \frac{\text{Profit after tax}}{\text{Equity Capital}}$$

##### 2. Financial risk is an additional risk to the company due to the decision to use debt or the risk arising from the use of debt (Financial Leverage);

$$\text{Financial Risk} = \sigma_{ROE(L)} - \sigma_{ROE(U)}$$

##### 3. Operating Leverage is the sensitivity of EBIT to changes in the company's sales. Operating leverage arises because the company uses fixed operating costs

$$\text{Percentage change in EBIT} = \frac{(EBIT^1 - EBIT^0)^0}{(EBIT)^0}$$

##### 4. Degree Of Operating Leverage (DOL):

$$\text{Degree Of Operating Laverage} = \frac{(EBIT^1 - EBIT^0) / EBIT^0}{(SALES^1 - SALES^0) / SALES^0}$$

## RESEARCH RESULTS AND DISCUSSION

### A. Situation and Condition of Research Place

Industry Central Tile Industry small craft tile are activities productive that transform raw materials into clay tile. To meet the needs of life and provide value-added, Tear in 1987 was the beginning of the formation of the Central Industrial Role Model V or the better known by the designation village Lohjinawi, District Exhibition, Pringsewu Lampung regency. The first attempt is initiated because land in the villages containing clay can be processed into tiles. Mr. Ari Wibowo is one of 32 industrialists existing tile Lohjinawi village.

## B. Data Collection and Presentation

### 1. Data collection

In this study, data collection using documentation through existing data is then processed into financial statements in the form of income statements and balance reports from December 31, 2018, to December 31, 2020.

### 2. Data Presentation

Presentation of data in the form of Financial Statements including, balance sheet and profit and loss reports, as well as information on the use of net income at the Ari Wibowo Central Tile Industry from 2018 to 2020, are presented in the following table:

Table. 1 List of Wealth of Central Tile Industrial Company  
Ari Wibowo Lohjinawi  
As of December 31, 2018-2020.

ACCOUNT	2018	2019	2020
<b>ASSETS</b>			
<b>Total Current Assets</b>	<b>165,185,000</b>	<b>365,127,750</b>	<b>311,502,750</b>
<b>Fixed assets</b>	1,325,000,000	1,425,000,000	1,625,000,000
Acc. Depreciation	-140,000,000	- 285,000,000	- 465,000,000
<b>Total Fixed Assets</b>	<b>1,185,000,000</b>	<b>1,140,000,000</b>	<b>1,160,000,000</b>
<b>TOTAL ASSETS</b>	<b>1,350,185,000</b>	<b>1,505,127,750</b>	<b>1,471,502,750</b>
<b>PASSIVE</b>			
Accounts Payable	45,075,000	17,500,000	10,000,000
Long term bank loan	225,000,000	150,000,000	75,000,000
<b>Total Amoun of debt</b>	<b>270,075,000</b>	<b>167,500,000</b>	<b>85,000,000</b>
<b>Capital</b>			
Business Capital	905,185,000	1,080,110,000	1,337,627,750
Operating Profit	174,925,000	257,517,750	48,875,000
<b>Total Capital</b>	<b>1,080,110,000</b>	<b>1,337,627,750</b>	<b>1,386,502,750</b>
<b>Total Passive</b>	<b>1,350,185,000</b>	<b>1,505,127,750</b>	<b>1,471,502,750</b>

Source: Central Tile Industry Ari Wibowo Lohjinawi

Table. 2 Central Tile Industry Income Report Ari Wibowo Lohjinawi

ACCOUNT	2018	2019	2020
Sales	1,210,000,000	1,560,000,000	1,420,000,000
HPP	412,100,000	536,035,000	487,819,000
<b>Gross Profit</b>	<b>797,900,000</b>	<b>1,023,965,000</b>	<b>932,181,000</b>
Operational Cost	162,400,000	168,650,000	164,681,000
Depreciation Cost	140,000,000	145,000,000	185,000,000
<b>EBIT</b>	<b>495,500,000</b>	<b>710,315,000</b>	<b>582,500,000</b>
Interest	25,000,000	25,000,000	25,000,000
<b>EBT</b>	<b>470,500,000</b>	<b>685,315,000</b>	<b>557,500,000</b>
Tax	70,575,000	102,797,250	83,625,000
<b>EAT</b>	<b>399,925,000</b>	<b>582,517,750</b>	<b>473,875,000</b>

As of December 31, 2018-2020.

Source: Central Tile Industry Ari Wibowo Lohjinawi



### C. Data Analysis

Based on data collection is then performed Risk Business Analysis as follows:

1. This business risk is measured by the standard deviation of ROE (Return On Equity).

Table.3 Changes in Sales and EAT

Information	YEAR		
	2018	2019	2020
Sales	1,210,000,000,-	1,560,000,000,-	1,420,000,000,-
EAT	399,925,000 , -	582.51 7 , 750. -	473.875, 000, -
CAPITAL	1,080,110, 000, -	1,337,62 7 , 750. -	1,386.50 2 , 750. -
ROE	37.03%	43.55%	34.18%
% Change in Sales	-	28.93%	- 8.97%
% Change EAT	-	45.66%	- 18.65%
ROE Increase/Decrease	-	6.52%	- 9.37%

Source: Data processed by Central Tile Industry Ari Wibowo Lohjinawi

That ROE in 2019 compared to 2018 increased to 6.52%, due to the increase in sales amounted to 28.93%. While the rise in EAT amounted to 45.66%; whereas in 2020 compared with 2019, Sales decreased by 8.97%, followed by a decrease in EAT of 18.65%, so that ROE decreased by 9.3%.

2. Financial risk is the additional risk to the company as a result of the decision to use debt or risk arising from the use of debt (financial leverage), wherein:

$$\text{Financial Risk} = \sigma_{ROE(L)} - \sigma_{ROE(U)}$$

Table. 4a. Companies With Bank Loans and Without Bank Loans

Information	2018	
	With No Bank Debt	With Bank Loans
EBIT	<b>495,500,000</b>	<b>495,500,000</b>
Interest	0	25,000,000
EBT	470,500,000	470,500,000
Tax	74,325,000	70,575,000
EAT	<b>421,175,000</b>	<b>399,925,000</b>
ROE	<b>32.27%</b> <b>(421,175,000 / 1,305,110,000)</b>	<b>37.03%</b> <b>(399,925,000 / 1,080,110,000)</b>

Source: Data processed by Central Tile Industry Ari Wibowo Lohjinawi

Table. 4. b. Companies With Bank Loans and Without Bank Loans

Information	2019	
	With No Bank Debt	With Bank Debt
EBIT	<b>710,315,000</b>	<b>710,315,000</b>
Interest	0	25,000,000
EBT	710,315,000	635,315,000
Tax	106,547,250	102,797,250
EAT	<b>603,767,750</b>	<b>582,517,750</b>
ROE	<b>40.59%</b> <b>(603,767,750 / 1,487,627,750)</b>	<b>43.55%</b> <b>(582,517,750 / 1,337,627,750)</b>

Source: Data processed by Central Tile Industry Ari Wibowo Lohjinawi

Table.4.c. Companies With Bank Loans and Without Bank Loans

Information	2020	
	With No Bank Debt	With Bank Debt
EBIT	<b>582,500,000</b>	<b>582,500,000</b>
Interest	0	25,000,000
EBT	582,500,000	557,500,000
Tax	87,375,000	83,625,000
EAT	<b>495,125,000</b>	<b>473,875,000</b>
ROE	<b>33.88%</b> <b>(495,125,000 / 1,461,502,750)</b>	<b>34.18%</b> <b>473,875,000 / 1,386,502,750</b>

Source: Processed data, Central Tile Industry Ari Wibowo Lohjinawi

Based on the table above, debt can increase the Company's ROE in 2018 by using Bank Capital of Rp. 225,000,000,- (Two hundred twenty-five million) can increase ROE by 4.76%, and in 2019 with Bank Loans of Rp. 150,000,000- can increase ROE by 2.96%, while in 2020, the company will still use a portion of Bank Loans capital of Rp. 75,000,000,- can still increase ROE by 0.3%; It can also be said that the greater the company's use of debt capital, the greater the level of ROE; however, the use of debt will increase the company's risk, especially to shareholders (equity investors).

3. Operating Leverage is the sensitivity of Net Profit before interest and taxes (EBIT) to changes in the company's sales. Operating leverage arises because the company uses fixed operating costs.

Table. 5.a. Comparison of Sales and Profit/Loss for 2018-2019

Information	2018	2019	Change	
			Nominal	%
Sales	1,210,000,000	1,560,000,000	350,000,000	28.93%
Cost of goods sold	412,100,000	556,962,000	123,935,000	30.07%
Gross profit	<b>797,900,000</b>	<b>1,023,965,000</b>	<b>41,654,900</b>	<b>27.99%</b>
Fixed Cost (Depreciation)	140,000,000	145,000,000	5,000,000	3.57%
Variable cost	162,400,000	168,650,000	6,250,000	3.85%
EBIT	<b>495,500,000</b>	<b>710,315,000</b>	<b>214,815,000</b>	<b>43.35%</b>
Interest	25,000,000	25,000,000	0	0.00%
EBT	470,500,000	685,315,000	214,815,000	45.66%
Tax	70,575,000	102,797,250	32,222,250	45.66%
EAT	399,925,000	582,517,750	182,592,750	45.66%

Source: Central Tile Industry Ari Wibowo Lohjinawi

Table.5.b. Comparison of Sales and Profit/Loss for 2019-2020

Information	2019	2020	Change	
			Nominal	%
Sales	1,560,000,000	1,420,000,000	(140,000,000)	-8.97%
Cost of goods sold	536,035,000	487,819,000	(48,216,000)	-8.99%
Gross profit	1,023,965,000	932,181,000	(91,784,000)	-9.96%
Fixed Cost (Depreciation)	145,000,000	185,000,000	40,000,000	27.59%

Variable cost	168,650,000	164,681,000	(3,969,000)	-2.35%
EBIT	710,315,000	582,500,000	(127,815,000)	-17.99%
Interest	25,000,000	25,000,000	0	0.0%
EBT	635,315,000	557,500,000	(127,815,000)	-18.65%
Tax 15%	102,797,250	83,625,000	(19,172,250)	-18.65%
EAT	582,517,750	473,875,000	(108,642,750)	-18.65%

Source: Central Tile Industry Ari Wibowo Lohjinawi

In 2019 Net Profit (EBIT) increased by Rp. 214,815,000,- which came from the increase in sales of Rp. 350,000,000,- (Rp. 1,560,000,000– Rp. 1,210,000,000) which resulted in an increase in EBIT in 2019 of Rp. 710,315,000,- from 2018, with EBIT amounting to Rp. 495,500,000,-

$$\text{EBIT Percentage change} = \frac{(710,315,000 - 495,500,000)}{495,500,000} = 43,35\%$$

$$\text{Percentage change in Sales} = \frac{(1,560,000,000 - 1,210,000,000)}{1,210,000,000} = 28,93\%$$

In 2020, EBIT decreased by - Rp. 127,815,000,- which derived from the decrease in sales of Rp. 1,560,000,000,- to Rp. 1,420,000,000,- decreased by Rp. 140,000,000,- which resulted in a decrease in EBIT in 2020 by Rp. 582,500,000,- from 2019 with an EBIT of Rp. 710,315,000,-

$$\text{EBIT percentage change} = \frac{(582,500,000 - 710,315,000)}{710,315,000} = (17,99\%).$$

$$\text{Percentage change in Sales} = \frac{(1,420,000,000 - 1,560,000,000)}{1,560,000,000} = (8,97\%).$$

4. Degree of Operating Leverage (DOL) measures what percentage of EBIT changes if sales change 1%

$$\begin{aligned} \text{DOL1, Year 2018-2019} &= \frac{(710,315,000 - 495,500,000) / 495,500,000}{(1,560,000,000 - 1,210,000,000) / 1,560,000,000} \\ &= \frac{43,35\%}{28,93\%} = 1,50 \text{ x or } 150\% \end{aligned}$$

$$\begin{aligned} \text{DOL2, Year 2019-2020} &= \frac{(582,500,000 - 710,315,000) / 710,315,000}{(1,420,000,000 - 1,560,000,000) / 1,560,000,000} \\ &= \frac{-17,99\%}{-8,97\%} = 2,01 \text{ x or } 201\% \end{aligned}$$

On sales of Rp. 1,560,000,000,- change in EBIT is 1,50 x, that is the percentage change in EBIT to sales percentage changes; 43.35% / 28.93%; during the sales of Rp. 1,420,000,000 change in EBIT is 2.01x which is the percentage change in EBIT to the percentage change in sales; -17.99% / -8.97%.

#### D. Discussion of Research Results

From the data analysis, the results of the business risk analysis in the Central Tile Industry Ari Wibowo Lohjinawi, that:

1. Whereas ROE in 2019 from 2018 increased by 6.52%, due to an increase in sales of 28.93% and an increase in EAT of 45.66%. Whereas in 2020 compared with 2019, sales decreased by 8.97%, followed by a decline of EAT amounted to 18.65%, so the ROE decreased by 9.3%, So the company can be indicated by

market risk because the rise and fall of sales are highly dependent on the level of consumer demand.

2. The use of debt can increase the Company's ROE in 2018 by using Bank Capital of Rp. 225,000,000,- (Two hundred twenty-five million) increased ROE by 4.76%, and in 2019 with Bank Loans of Rp. 150,000,000,- can increase ROE by 2.96%, while in 2020, the company will still use a portion of Bank Loans capital of Rp. 75,000,000,- can still increase ROE by 0.3%. It can also be said that the larger the company uses debt capital, the greater the level of ROE. However, using debt will increase the company's risk, especially to shareholders (equity investors). The higher the debt used, the greater the Company's Financial Risk.
3. Operating Leverage is the sensitivity of Net Profit before interest and taxes (EBIT) to changes in company sales; in 2019, Net Profit (EBIT) increased by Rp. 214,815,000,- or 43.35%, which came from an increase in sales of Rp. 350,000,000,- (Rp. 1,560,000,000 – Rp. 1,210,000,000) which resulted in an increase in EBIT in 2019 of Rp. 710,315,000,- from 2018 with an EBIT of Rp. 495,500,000,-, while in 2020, EBIT decreased by - Rp. 127,815,000,- (-17.99%), which derived from the decrease in sales of Rp. 1,560,000,000,- to Rp. 1,420,000,000,- decreased by Rp. 140,000,000,- which resulted in a decrease in EBIT in 2020 by Rp. 582,500,000,- from 2019 with an EBIT of Rp. 710,315,000,-. Positive operating leverage means the company generates higher sales than total costs. A company has high operating leverage; a company with this condition will be susceptible to fluctuations in sales, then the EBIT will experience major changes. Thus the company has a high operating risk.
4. Degree of Operating Leverage (DOL) measures what percentage of EBIT changes if sales change 1%; DOL in 2018-2019 amounted to 1.50x or 150%, which means DOL amounted to 150% indicates that every increase of 100% or 1x sales would cause an increase in operating profit of 1.50x. The same is true for the opposite; if sales decrease 1x, then the operating profit will decrease by 1.50x. However, in 2019-2020 it amounted to 2.01x or 201%, which means DOL of 201% indicates that any decline of 100% or 1x sale will lead to a decrease in operating profit of 2.01x. The same applies vice versa; if sales decrease 1x, operating profit will decrease by 2.01x. DOL is an attribute of business risk; the greater the company's DOL, the more sensitive or, the greater the variation in profits due to changes in company sales. Thus, the higher the DOL, the greater the company's indication of business risk

## **CONCLUSIONS, SUGGESTIONS, AND LIMITATIONS**

### **A. Conclusion**

The results of the Business Risk analysis found in the Ari Wibowo Central Tile Industry in Lohjinawi village, Pringsewu Regency from 2018 - 2020 show that: ROE, an increase due to the rise in sales and an increase in EAT, and vice versa. The decline in ROE resulted from a decrease in Sales and EAT so that the Company can indicate market risk. The use of debt can increase the Company's ROE; the more significant the company has a right to Capital Debt, the greater the level of ROE; however, the use of debt will increase companies' risk, especially in the shareholders (equity investor). Financial Risk is also indicated, that the greater the debt used, the greater the Company's Financial Risk. Operating Leverage, where EBIT is very sensitive to changes in the company's sales; therefore, the Company is indicated to operational risk. Degree of Operating Leverage (DOL) measures what percentage of EBIT changes if sales change by a

certain percentage level. DOL is an attribute of business risk. Thus the company is indicated as business risk

## **B. Suggestion**

The Central Business of Ari Wibowo Tile Industry in Lohjinawi village has been running for +/- 34 years. Presumably, it can do calculations or calculations about how much risk might occur. By calculating the amount of risk, namely:

- Finds how often a chance occurs (FREQUENCY of occurrence of risk)
- Determine the impact arising from the risk that arises (IMPACT)
- Calculate the possible loss prediction with the formula:

$$\text{FRE QUANTITY X IMPACT}$$

## **C. Limitations in research**

Whereas in this writing, the author realizes that there are still many obstacles. The data needed in this study is secondary data, requiring considerable cost and time to obtain it, so the author limits it to only 1 (one) business of the Ari Wibowo Tile Industry Center from 32 Tile Industry Centers in Indonesia. Lohjinawi village, Pringsewu district.

## **REFERENCES**

- Fahmi, I. (2018). *Risk Management* (7th ed.). Bandung: CV Alfabeta.
- Rustam, B. R. (2017). *Risk Management Principles, Implementation, and Research*. South Jakarta: Salemba Empat.
- Sobana, D. H. (2018). *Business Feasibility Study* (1st ed.). Bandung: CV Pustaka Setia.
- Yasa, I. W. W., Dharma, I. G. B. S., & Sudipta, I. G. K. (2013). Operating Risk and Maintenance Management of Bangli Regional Final Place of Garbage Disposal "Tempat Pembuangan Sampah (TPA) in Bangli Regency." *Jurnal Spektran*, 1(2), 30–38. <https://doi.org/10.24843/spektran.2013.v01.i02.p05>