

# Added value rentability of tofu agroindustry business in North Lombok Regency

*by Tajidan Dkk*

---

**Submission date:** 30-May-2022 09:59AM (UTC+0700)

**Submission ID:** 1846836744

**File name:** 2021\_Tajidan\_IOP\_Conf.\_Ser.\_Earth\_Environ.\_Sci.\_807\_022019.pdf (444.46K)

**Word count:** 7603

**Character count:** 38803

PAPER • OPEN ACCESS

## Added value rentability of tofu agroindustry business in North Lombok Regency

To cite this article: Tajidan et al 2021 IOP Conf. Ser.: Earth Environ. Sci. **807** 022019

View the [article online](#) for updates and enhancements.

### You may also like

- 15  
- [Study of adsorbent based cooling refrigeration for palm oil production using value added and non-value added waste consideration in PT XYZ palm oil mill](#)  
M T Sembiring, D Wahyuni, T S Sinaga et al
- [Analysis of value added agro industry products export online processes in Andri Tenggoh case study at Oro Coflor Gasep](#)  
A Bahag, A H Hamid, E Susanti et al
- 5  
- [Business process improvement in frozen sugar industry in Sukoharjo](#)  
Mu'adiah and Taufiq Immanuel

## Added value rentability of tofu agroindustry business in North Lombok Regency

Tajidan<sup>1</sup>, Halil<sup>1</sup>, Efendy<sup>1</sup>, F.X. Edy Fernandez<sup>1</sup>, Abdullah Usman<sup>1</sup> and M H Jamil<sup>2</sup>

<sup>1</sup>Agribusiness Study Program in Mataram University, Indonesia

<sup>2</sup>Agribusiness Study Program, Faculty of Agriculture, Hasanuddin University, Makassar, Indonesia

E-mail: tajidan@unram.ac.id

**Abstract.** The measurement of company performance usually uses the analysis of Return on Investment (RoI), Return in Earning (RoE), Business Rentability (Ru) and Economic Rentability (Re) to assess the level of profit against capital, which means the extent to which business activities have a positive impact on capital owners, but it has not yet described the impact on human resources. The solution offered is the measurement of the company's performance using Value Added Rentability (Rnt), so that the impact on the welfare of business actors can be known. Data was collected from all tofu agro-industry business units in North Lombok Regency. Data collection is done by using a survey method based on a list of questions. The survey was conducted 2 (two) times before and after the earthquake, namely in June 2018 and June 2019 for 24 respondents of business owners. The results showed that Value Added Rentability (Rnt) before earthquake in 2018 was 216.82% and post-earthquake in 2019 was 316.81%, meaning that the income obtained by capital owners from profits and labor wages was greater after the earthquake than before the earthquake for one IDR use of capital.

### 1. Introduction

BPBN data there have been 729 aftershocks with five major earthquakes from July to August 2018 with the epicenter in North Lombok Regency and around Lombok Island. The earthquake disaster has caused physical damage, and paralyzing productive economic activity [1]. During the earthquake period, Production activities are halted, because people are busy saving themselves and their families. The effect of the subsequent earthquake disaster was that people's purchasing power had fallen to its lowest point, so the prices of fresh agricultural products decline dramatically, because absence of a buyer. Shops, stalls, markets and small businesses are closed for more than 2 (two) weeks, community traumatized by continuous aftershocks, so residents are worried about traveling. This condition has worsened the economic situation of the people and only survived from aid that came from outside the North Lombok District.

The impact of the earthquake on the economy of the community was thus worsened, then the government responded by giving credit relief that was approved through the rescheduling policy provide additional financing facilities in order to revive the economy after the earthquake [2]. The government policy was responded to varied by banking institutions and *unit community development* in companies i.e. resectheduling loan repayments.



Content from this work may be used under the terms of the Creative Commons Attribution 3.0 licence. Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.

Published under licence by IOP Publishing Ltd

The condition of the customers who suffered from the earthquake including loss of assets due to physical damage to buildings and equipment and loss of capital. Capital that was originally used to drive productive economic ventures forced to be diverted to meet the needs of self and family consumption. Not only after the earthquake they lost their assets and capital, but also lost employment opportunities, due to stalled productive economic activities [3].

The economic activity of the tofu agro-industry can be used as an indicator of the economic development of the people after the earthquake. Earthquake victims must recover from the economic downturn and as soon as possible to move back to normal in residential tents or in temporary shelters [4]. This expectation has been responded to by economic actors including entrepreneurs in the tofu agro-industry, some of them are starting to rise one-week post-earthquake and some are slower than that. By using some of the equipment that is still good and stock of existing raw materials, they try to start production with a small business scale of 5 (five) kilograms of raw material and gradually increased until it reaches its optimal production scale, including seeking recovery of production activities by using own capital in addition to loan capital.

The economic activity of the tofu agroindustry business can be used as an indicator of the economic development of the people after the earthquake, because the tofu product is a traditional food that is favored by almost all walks of life of low income as well as middle and high income. Economic Rentability (Re) and Business Rentability (Ru) in measuring capital performance and capacity of tofu agro-industry entrepreneurs [5, 6, 7]. Overall analysis tools used by experts so far only use the ratio of profit to capital or profit to asset. The profit is only enjoyed by the owner of the company.

The use of RoI, RoE, Ru and Re analysis seems unwise because it is more focused on the capacity of capital owners, while labor capacity is neglected. Therefore, this research offers a formula of Value Added Profitability (Rnt) to measure the capacity of human resources consisting of employers and workers. Rnt is the ratio of value added to the use of all capital used in company activities.

The objectives to be achieved in carrying out this research are: a. Measuring the net profit and gross profit of tofu agro-industry; b. Knowing the wages of labor in tofu agro-industry; c. Knowing the amount of capital used in the tofu agro-industry; and d. Analyzing the value added profitability of post-earthquake agro-industry businesses in North Lombok Regency.

## 2. Research Method

Data collection is done by survey method. The survey was conducted 2 (two) times. The first survey was conducted in June 2018 before the earthquake, the second survey was carried out after the earthquake in June 2019. The unit of analysis in this study is the tofu agro-industry in North Lombok Regency. Total population of 24 business units. The survey was conducted on all units of analysis using the census method. Respondents in this study are owners and managers of tofu agro-industry businesses.

Data collection was carried out by structured interviews using a questionnaire. The collected data is processed and analyzed using Excel software. The capacity of employers and workers in tofu agro-industry businesses before and after the earthquake was measured using Value Added Profitability (Rnt) with the formula:

$$Rnt = \frac{\sum \text{Net Income} + \text{Labor Wages}}{\sum \text{Own Capital} + \sum \text{Loan Capital}} \times 100\%$$

Interpretation: If the  $Rnt > 200\%$  is stated that the tofu agro-industry is profitable for the owner and labor.

### 3. Results and Discussion

#### 3.1. Overview of Tofu Agro-Industry Business Unit

3.1.1. *Labor*. Labor is an important factor of production in the production process. Workers in the agro-industry production process are sourced from within the family, no labor from outside the family. The use of labor in the family is caused by the workforce that no one is willing to work as laborers, because generally they have land that is used for agricultural cultivation activities. Even though there is demand for workers outside the family, there is no labor supply for tofu production activities.

Outside family labor is obtained from outside the district, but the wages will certainly be higher than the wages of local workers. The biggest obstacle faced in the use of labor outside the family is the unavailability of a workforce that accepts paid jobs, they prefer to be unemployed rather than become coolies to others. Their attachment to agricultural business as an obstacle to work in the industrial sector [8,9]. Tofu entrepreneurs in North Lombok Regency are generally migrants who migrate to North Lombok Regency. Almost all tofu processing entrepreneurs are from Mataram City and West Lombok Regency, the other small portion is from Central Lombok Regency.

For that reason, whether you want it or not, employers can only use labor in the family [10]. The limited workforce becomes an obstacle to the development of tofu agro-industry business scale [11]. The average use of labor per business unit is 2.43 HKO for men and 1.44 for HKO for women. The average use of labor is 3.87 HKO / per process / business unit.

The availability of labor for work is related to opportunity income. The choice of type of work is related to the comparison of income or wages obtained. Workers will choose jobs that promise higher wages.

3.1.2. *Labor Wages*. The Provincial Government of West Nusa Tenggara sets wage standards in accordance with the necessities of decent living in the West Nusa Tenggara region. The number of wages set by the provincial government is called the Provincial Minimum Wage (UMP).

The amount of the UMP of West Nusa Tenggara Province in 2018 is IDR1,825,000 / month and the UMP in 2019 is IDR2,012,610 (<https://gajimu.com>> minimum salary) based on NTB Governor Decree Number 561-815 2018 on 31 October 2018. The determination of the UMP NTB Province is based on the Need for Decent Living (KHL).

With the calculation of the number of working days per month 24 days. The UMP in 2019 is equivalent to IDR 83,860 / HKO, while the real wage in North Lombok Regency is IDR 30,000 to IDR 80,000 / HKO with an average wage in the tofu production process in 2019 of IDR 41,900 / HKO. Average wage the workforce in the processing year is around half (49.96%) of the West Nusa Tenggara UMP.

Based on the above comparison, it is natural for tofu processing entrepreneurs to find it difficult to get workers outside the family, because the wages are too low when compared to the UMP. The difficulty in getting workers outside the family is also caused by many people owning independent businesses with opportunity income greater than the real wages.

3.1.3. *Feasibility of Credit Financing*. Small micro entrepreneurs need additional funding sourced from loans (loans), but most of the entrepreneurs are reluctant to submit applications because of administrative requirements [12]. A long bureaucracy, passing a credit worthiness analysis based on the 5C principle, resulted in the majority of small micro entrepreneurs discouraging their desire to obtain capital loans from financial institutions.

The terms and conditions for applying for credit have changed a lot and have been simplified by the government through a credit policy program [13], but the fact is that small micro entrepreneurs still have a negative stigma that getting credit is not easy. One of the characteristics of micro small entrepreneurs is that they tend not to be known to be in debt, especially by the community around their homes, including by the hamlet head and village head. Completing the licensing requirements has

emerged the image that they will be asked for what needs to take care of the permit, while the permit is one of a number of requirements needed.

Small micro entrepreneurs engaged in tofu agro-industry in North Lombok Regency deserve credit based on the following 5C principles [14].

*3.1.4. Credit Feasibility of the 5C Principle.* Principle 5C is an assessment of the mental and business environment of a potential debit candidate that must be owned as a prudent condition of banks in lending [15]. The 5C principles are Character, Capacity, Capital, Collateral, and Condition.

Debtor personality is measured from a psychological aspect, including honesty in fulfilling its obligations as a debtor. In addition to honesty is the discipline and responsibility in running the business. This honesty can be known from the results of the survey by conducting in-depth interviews with prospective debtors, as well as getting experience information related to his behavior in meeting his financial obligations at a previous time.

One that is examined in this aspect of character is whether the person concerned has arrears on the creditor institution. If there are still outstanding arrears, the person concerned does not meet the principle of character. Important information in the survey is socioeconomic background, behavior patterns, lifestyle, and shopping or recreational habits which are then compared between the amount of expenditure with the amount of income.

From the results of a survey of micro-agroindustrial micro-entrepreneurs know that the entrepreneurs generally have met the precautionary principle in terms of character, because in general they are honest, disciplined and responsible in fulfilling their obligations, especially to suppliers of raw materials for soybeans, and salt water, as well as from information obtained that generally they do not currently have arrears in debt to banking financial institutions or non-banking financial institutions.

*3.1.5. Capacity.* The individual capacity of micro entrepreneurs is the intellectual capacity they have. Individual capacity that can be completed from the ability to manage business activities [16]. Business activities are still at the household scale, not yet developing to industrial scale. Their business capacity is still very small, on average their ability to process soybeans around 61 kg per day is very small compared to the industrial capacity of 2.5 tons to 5.0 tons per day.

Along with business management capabilities, it also appears that the number of workers employed by 2-5 people is far lower than the capacity of industries with the ability to utilize labor force above 10 people. This problem becomes clear evidence that their capacity is limited to micro-small businesses, cannot be raised to retail capacity or medium scale businesses with a workforce of 10-100 people. Tofu agro-industry entrepreneurs meet the principle of capacity based on a reference to the use of workers under 10 people.

Owning financial books and financial reports is an important aspect of customer capacity, namely by looking at cash inflows and cash outflows, including checking cash flow in the accounts of the people concerned, as well as solutions to the financial problems they face. The number and intensity of the relationship becomes a consideration in graduating prospective customers from the second aspect of the 5C principle.

Along with the capacity conditions above, the condition of the company's capital is an important aspect to be assessed from the 5C principle. The amount of immovable assets and the amount of movable assets are determinants of credit worthiness. The amount of credit extended does not exceed the value of the assets they have. The amount of assets before getting credit is the amount of capital they have, so the existence of credit allows the amount of assets to increase.

Entrepreneurs who meet the 5C principle of capital are only those who have productive economic ventures. Asset valuation is of particular importance for entrepreneurs who do not yet have financial reports. Ownership of financial statements is a requirement that needs to be completed even in a very simple form. Project Statement is an indicator of capital ownership after validation by surveyors.

Documentation in the form of a photo of the assets that are owned to reinforce that aspects of capital have met the eligibility requirements.

The operational capital of tofu agro-industry businesses ranges from IDR 5,000,000 to IDR 30,000,000 with an average of IDR 13,200,000. Loan capital ranges from IDR 0 to IDR 15,000,000 with an average of IDR 5,600,000. Based on the composition of their own capital and loan capital shows a healthy composition, meaning that the average amount of loan capital is around 1/3 of their own capital from the maximum limit ¼ of the amount of their own capital. From the aspect of financial health shows that the principle of Capital has been fulfilled by tofu agro-industry entrepreneurs [17].

The government policy on Micro Business Loans stipulates that the government acts as a guarantor for the debts of the customers which include administrative costs, fees and interest. All administrative and provisioning costs are borne by the government, while interest costs are borne by the difference between commercial interest and the interest paid by the customer. Some of the interest costs are borne by the government, the rest is paid by the customer.

The policy as mentioned above, also allows creditors to obtain a compensation if the customer is unable to pay off his debts due to natural disasters, or caused by social disasters beyond the ability of humans to prevent or be out of his control.

The survey results show that the customer or debtor has objects or goods that can be used as collateral in the form of immovable or movable property. Especially for immovable property such as land and buildings, not all of them have ownership documents in the form of certificates of ownership or building permits that can be used as collateral or collateral for their debts. Among respondents who have obtained financial loans from financial institutions they actually have goods that can be used as collateral, just because the government has acted as a guarantor, then customers are not required to make their goods as collateral.

Loan offers originating from ColdRorate Social Responsibility (CSR) with the requirement to provide collateral in the form of BPKB Motorized Vehicles indicate that customers are reluctant to use them, meaning that customers are skeptical about the continuity of their business and still assume that credit loan guarantees are a risk that they must bear. They are willing to get loans from CSR sources on condition that there is no collateral.

CSR loan offers to tofu entrepreneurs in North Lombok Regency from PT Angkasa Para I cannot be channeled because customers are unwilling to guarantee their BPKB, while CSR from PT Telkom that does not require guarantees that CSR loans have been channeled to 17 customers in 2018.

In July and August 2018 there was an earthquake that shook Lombok and Sumbawa on a scale of 6.8 SR, and aftershocks continued until 2019. A fairly large earthquake occurred on July 29 and August 5, 2018 which resulted in physical buildings: residential houses, business premises, school buildings and places of worship, etc. People are traumatized, which impacts on the economic downturn, the closure of shops and markets. Economic activity stops 2-4 weeks.

The impact of the earthquake was felt in meeting people's daily needs. The need for food, clean water, and urgent needs cannot be produced alone. The need for instant food is brought in from outside as social assistance sent or delivered by volunteers. These economic conditions cause customers who have obtained loans from financial institutions seem difficult to meet their financial obligations, most productive economic businesses suffer losses due to stop production, existing products are difficult to sell, raw materials are difficult to obtain because entrepreneurs are traumatized to take products or send materials raw.

Since September 2018, the community's economic activities have gradually recovered, as indicated by the sale and purchase transactions in traditional markets and shops. The traders began to open their businesses. Trade between regions began to rise little by little. Vehicles that carry goods between regions start going back and forth to and from North Lombok Regency. In 2019 economic conditions will return to normal as before the earthquake.

*3.1.6. Amount of Capital.* Central Statistics Agency report that inflation from July to December 2018 amounted to 3.13%. Inflation in 2018 is quite controlled with predictions at the beginning of the year in the State Budget and Bank Indonesia projections. Inflation from 2019 to May 2019 was recorded at 3.22%. Therefore, the accumulated inflation from July 2018 to May 2019 was 6.33%. This inflation data is used as a correction to the survey data from July 2018 before the earthquake occurred in North Lombok Regency.

**Table 1.** Increasing the Amount of Agro-Industrial Business Capital in 2018 and 2019.

Description	Before earthquake 2018 (IDR)	After earthquake 2019 (IDR)	Increasing (%)
Stief Capital	53,971,000	48,643,560	-9.87
Loan Capital	156,299	24,997	-84.01
Amounting	54,127,299	48,668,557	-10.08

Capital consists of own capital and loan capital (foreign capital). The amount of own capital and loan capital has decreased. Identical to the amount of capital, the amount of tofu agro-industry business assets also decreased. Decrease in capital amount by 10.08% from 2018 to 2019. This decrease was partly due to a decrease in the value of buildings due to depreciation or due to damage caused by the earthquake.

Own capital is the main capital for tofu agro-industry entrepreneurs. Of the 24 tofu business units domiciled in North Lombok Regency, most of them only use their own capital (87.50%), while those who use additional capital from loan capital (foreign capital) only 3 (three) business units (12.50%). The average loan capital is very small as shown in table 1. The capital composition is that tofu agro-industry is classified as very healthy, because it has the ability to pay financial obligations consisting of loan principal and interest.

*3.1.7. Distribution of Using Capital.* Agro-industrial business capital is used to meet the needs of fixed investment and operational investment. The amount of fixed assets is an accumulation of allowance for operating results for several years, because generally entrepreneurs have long been engaged in tofu agro-industry. Part of the profits earned are set aside in fixed assets as shown in table 2.

Along with the decrease in the amount of capital, the total assets of assets have decreased by 2 (two) digits. Of the 11 items of fixed assets including 6 (six) items decreased, while 5 (five) items increased. A small portion of the amount of capital owned by tofu agro-industry entrepreneurs is used as a non-permanent asset consisting of raw materials, supporting materials, and labor.

Various limitations exist in the condition of assets owned by tofu agro-industry entrepreneurs, especially the limited space to store raw materials and supporting materials, as well as the limited capital that can be allocated to meet their financing needs, the supply of raw materials and supporting materials to meet the needs of several days up to two weeks or an average of 6 (six) times the production process.

**Table 2.** The average fixed passiva Tofu agroindustry before and after earthquake.

Discreption	Before earthquake 2018 (IDR)	After earthquake 2019 (IDR)	Increasing (%)
Land	14,680,000	15,522,727	5.74
Building	27,111,000	21,006,250	-22.52
Well Water	1,790,000	1,245,000	-30.45
Mechines	3,950,000	3,766,667	-4.64
Cauldron	1,560,000	1,333,332	-14.53
Furnace	1,300,000	1,400,000	7.69
Panci	96,600	100,060	3.58



Baskets	62,000	52,047	-16,05
Boards	132,000	141,546	7,23
Tray	62,105	37,793	-39,15
Filter cloth	21,056	86,875	312,59
Among	50,764,761	44,692,297	-11,96

Changes in capital allocation appear to be the opposite between fixed assets and non-fixed assets. The number of fixed assets showed a decrease, non-fixed assets showed a double-digit increase. Increased non-permanent assets occur for all items. Inventories of consumables, supplies of auxiliary materials, and labor wage reserves. The increase in non-fixed assets rose 18.25% between before the earthquake and after the earthquake.

**Table 3.** The growth of fixed activa.

Discreption	Before earthquake 2018 (IDR)	After earthquake 2019 (IDR)	Increasing (%)
Soybean Supplies	2,305,980	2,750,100	19,26
Salt Water Supply	301,446	325,200	7,88
Plastic Supplies	35,088	39,600	12,86
Firewood			
Inventory	93,018	108,000	16,11
Electricity			
Reserves	15,822	27,600	74,44
Wage Reserves	611,184	725,760	18,75
Among	3,362,538	3,976,260	18,25

The allocation of capital utilization which has greater influence is a non-permanent asset or its allocation to finance consumables and direct labor costs. In the financing literature, non-fixed assets are also called working capital, some are termed operational capital. The more capital allocated for working capital, the company's performance will increase as indicated by the greater profits obtained and the improved performance indicators.

Each component in the financing performance determines the overall performance of the company, including production value (Revenue). Production Value is the product of production and the price per unit of production. The survey results show that the tofu price per unit of production has not changed (remained). The price of tofu is IDR 40,000 / board, medium size IDR 35,000 / board, and small IDR 30,000 / board (Table 4).

### 3.2. Production and Production Value

Tofu product size consists of large size, medium size and small size. Employers' preferences are more likely to produce large tofu than medium and small sizes. Although almost all entrepreneurs have large, small and medium size molds, but in practice tofu entrepreneurs produce tofu in accordance with each customers. Based on the orders of each customer, 19 business units produce tofu with large size, while those producing tofu with small size are 2 (two) business units, medium size 2 (two) business units, large and medium size 1 (one) business unit.

The average tofu production per process in 2019 was greater than the average tofu production per process in 2018. In 2018 the production of tofu per process was 25.08 boards; while in 2019 the average production per process increased to 31.00 boards consisting of large size 24.63 boards, medium size 3.54 boards, and small size 2.83 boards.

The proportional size of the product knows that the large, medium and small sizes do not change, meaning that the preferences of customers and producers do not change even if there is an earthquake. Stagnant production only occurred about two weeks after the earthquake on August 5, 2018; the rest

gradually improved the socio-economic and psychological conditions of the community to recover, so that the community could move towards a normal combination.

Although the tofu price did not change, due to increased production, the value of production also increased significantly by 25.12%. The increase in production value will have an impact on improving the performance of financing as well as the performance of the know agro-industry business as outlined in the next item. Performance improvement is not only caused by financing and efficiency factors in the production process, but the most important thing is the continuation of the business in the future [18]. For this purpose, a reliable marketing strategy is needed.

**Table 4.** Average value of tofu production per process before the 2018 earthquake.

Description	Production (boards)	Price (IDR/ boards)	Production Value (IDR/process)
Large	18.02	40,000	720,778
Mid	4.32	35,000	151,302
Small	2.74	30,000	82,143
Amount	25.08	38,046	954,223

### 3.3. Production Cost

Production costs consist of fixed production costs and variable production costs. Fixed production costs are sacrifices to meet the needs of the production process that is not used up in one production process and used in the long run. Fixed production costs consist of the cost of location rental, building rent, capital interest, depreciation of equipment and manager's salary, capital interest and land tax. Variable production costs are costs that are used up in one production process. The variable cost sacrifice consists of the cost of raw materials, the cost of supporting materials, direct labor costs, packaging costs, water costs, and energy costs (firewood and electricity 1) Fixed Production Costs

One important component of fixed production costs is the manager's salary, because so far, the entrepreneur knows he has never set the salary amount, because the manager is also the owner of the company. As the owner of the company, they never pay themselves, because there is still a mix of household and corporate finance. Such behavior is not in accordance with company principles that must be separated between corporate finance and household finance.

**Table 5.** Average fixed costs of tofu agroindustry business before earthquake in 2018.

Description	Unit	Cost (IDR/Unit)	Costs Value (IDR)
Rent Location (m2)	134	19,883	2,664,354
Building Rental (m2)	117	39,334	4,602,106
Shrinkage Tool (set)	1	372,534	465,575
Salary Manager (month)	12	1,200,000	14,400,000
Capital Interest (IDR)	8,973,761	0,07	628,163
Building Land Tax (m2)	134	103	13,802
Amount			22,774,000

The company owner, apart from being a manager, is also a direct worker, because the production process uses labor in the family consisting of husband, wife and / or children. The husband is assisted by his wife and children in the production process, while the wife is more focused on selling the products (delivering to customers or bringing them to the market). Based on this consideration and the prevalence that occurs in entrepreneurs, the manager's salary is set at IDR1,200,000 / month or IDR14,400,000 / year before and after the earthquake. Compared to other fixed costs, the manager's salary is the largest component.

Business premises are placed around the house. The location of the building of business premises around the house provides benefits seen from its access, because it provides convenience in carrying

out business activities, and does not incur transportation costs or spend a lot of time to and from work. The building of the place of business is his own property in the form of semi-permanent buildings and emergency buildings. Using the rental value approach of buildings around the workplace environment, an average yield of IDR4,602,106 / year is obtained. Likewise, the use of land on the side of the house or kitchen with an average area of 134 m<sup>2</sup>, that the average rental value of the location of IDR2,664,354 / year; while other fixed costs are relatively small under IDR1,000,000 / year.

**Table 6.** Average fixed costs of tofu agroindustry business after earthquake in 2019.

Description	Unit	Cost (IDR/Unit)	Costs Value (IDR)
Rent Location (m <sup>2</sup> )	134	19,883	2,664,354
Building Rental (m <sup>2</sup> )	117	39,334	4,602,106
Shrinkage Tool (set)	1	372,534	465,575
Salary Manager (month)	12	1,200,000	14,400,000
Capital Interest (IDR)	8,163,320	0.07	571,432
Building Land Tax (m <sup>2</sup> )	134	103	13,802
Amount			22,717,269

The average fixed production cost in 2019 experienced a slight decline compared to 2018, due to a decrease in the value of assets or business assets and a decrease in capital interest. By using an interest rate of 7%/year, the amount of interest in 2018 would be IDR 628,163 compared to 2019 of IDR 571,432, while other fixed costs did not change.

### 3.4. Variable Production Costs

The average variable production costs before the 2018 earthquake were lower when compared to the variable production costs after the 2019 earthquake. The development of variable costs from 2018 to 2019 can be seen in table 7 and table 8.

**Table 7.** Average variable costs of tofu agroindustry business before earthquake in 2018.

Description	Unit	Cost (IDR/Unit)	Costs Value (IDR)
Soybean	45,625	8,424	384,330
Salt water	3,835	2,000	7,669
Plastic	2,333	2,507	5,848
Firewood	3,058	5,070	15,503
Fuel	1,793	8,000	14,346
Electricity	0,623	4,232	2,637
Labor	1,813	56,185	101,864
Amount Variable Cost			532,197

The number of units of the use of raw materials, auxiliary materials, and direct labor in the tofu agro-industry business increased proportionally. The nature of variable costs that tend to be linear with the amount of production, then almost all components of variable production costs increase proportional to the use of raw materials and proportional to the volume of production as shown in Table 7 and Table 8.

**Table 8.** Average variable costs of tofu agroindustry business after earthquake in 2019.

Description	Unit	Cost (IDR/Unit)	Costs Value (IDR)
Soybean	60,833	7,535	458,350
Salt water	5,085	2,000	10,170
Plastic	3,235	2,040	6,600

Firewood	4,078	4,414	18,000
Fuel	1,087	4,232	4,600
Electricity	2,391	8,000	19,128
Labor	2,429	49,798	120,960
Among Variable Cost			637,808

One interesting component is soybean raw material as the main raw material for tofu production. Soybean prices are relatively lower in 2019 compared to 2018. The average price of soybeans still needs to be confirmed with secondary data, namely soybean price developments per month before the earthquake and post-earthquake. Based on observations that the price of agricultural products after the earthquake is relatively down compared to before the earthquake, however the number still needs to be checked carefully.

### 3.5. Tofu Agroindustry Business Profit

Profit is one of the components in the analysis of company performance and financing performance, because profit is the goal of every company both micro small and medium scale companies and large companies or coIDRorate. However small every business, that profit is a measure.

By using revenue and cost analysis, it can be seen that the profit of tofu agro-industry is relatively large when compared to the production costs and assets used in the production process. Based on the survey results that on average they work 6 (six) days per week for 10 months, minus national holidays and religious social events, then it is calculated that the number of working days for one year is 240 days. This approach is used, because so far the entrepreneurs do not have an authentic opening or record that can be accounted for by accounting. The issue of accountability is a common phenomenon for micro small businesses who do not understand the benefits of bookkeeping for the development of their business. This approach is certainly a weakness in this study, as well as a solution in order to measure Value Added Rentability.

**Table 9.** Average profit of tofu agroindustry business before and after earthquake.

Description	Before Earthquake 2018 (IDR)	After Earthquake 2019 (IDR)	Increasing
Production Value	229.013.520	286.549.920	25.12%
Production cost	150.501.280	175.791.189	16.80%
Fixed cost	22.774.000	22.717.269	-0.25%
Variable Cost	127.727.280	153.073.920	19.84%
Net profit	78.512.240	110.758.731	41.07%

Profit is derived from excess production value over production costs. Because the value of production is greater than the cost of production, tofu agro-industry is a profitable business that is shown by the achievement of net profits ranging from IDR78 million to IDR111 million per year.

By using market price calculations in the short term, that tofu agro-industry is the main source of income for entrepreneurs engaged in tofu agro-industry. The average profit earned depends on the business scale and efficiency in resource utilization. The larger the scale of the business, the opportunity to get even greater profits. Larger business scale is possible to achieve efficiency in the use of fixed investment.

Increasing the scale of the tofu agro-industry business in 2019 compared to 2018, a greater profit was obtained with an increase of 38.81%. From this picture it appears that the earthquake disaster that knocked down buildings and damaged some of the equipment owned by the agro-industry entrepreneurs knew, but in reality, after the earthquake passed and the impact of the earthquake was overcome, there was an increase in production value, an increase in variable costs, and a decrease in

fixed costs. This development has had a positive effect on tofu agro-industry business activities, especially in early 2019 which was the period of rebuilding houses damaged by the earthquake. Construction coolies and masons working in house renovation rehabilitation in North Lombok Regency earn income and have purchasing power, which in turn has an impact on increasing demand for food items including demand for tofu.

**Table 10.** Analysis of the profitability of tofu agroindustry before and post-earthquake.

Description	Before Earthquake 2018	After Earthquake 2019	Increasing
Owner's equity	IDR53,971,000	IDR48,643,560	-9.87%
Loan Capital	IDR156,299	IDR24,997	-84.01%
Total Capital (Asset)	IDR54,127,299	IDR48,668,557	-10.09%
Net profit	IDR78,512,240	IDR110,758,731	41.07%
Labor Wages	IDR38,847,360	IDR43,430,400	11.80%
Net Income + Income Labour	IDR117,359,600	IDR154,189,131	31.38%
Taxes + Capital Interest	IDR641,965	IDR585,234	-8.84%
Gross profit	IDR79,154,205	IDR111,343,965	40.67%
Value Added Rentability	216.82%	316.81%	46.12%

Significant increase in net profit as shown in Table 9 and Table 10 compared to the increase in capital and business assets, there is also an increase in the value of business profitability, economic profitability and value-added profitability.

The value of economic rentability is greater than the value of business reliability indicating that the use of foreign capital does not provide benefits for increasing business scale and increasing net profit. This is caused by the relatively small amount of loan capital when compared to the amount of own capital. The reduction in interest costs and taxes results in a decrease in business performance, as well as showing financing performance that does not have a positive impact on the tofu agro-industry. The use of own capital is considered appropriate for the development of tofu business, while loan capital as a supplement to increase financial capacity.

The credit they get from financial institutions is not fully used to increase business assets, but to buy assets outside the needs of the production process, among others, to buy motorbike vehicles, cars, and to buy a yard, while the repayment of these loans is taken from the rest of the tofu agro-industry. That is why capital loans from financial institutions do not increase the efficiency of the production process nor the efficiency in the use of capital.

### 3.6. Addet Value Rentability

This study offers a measure of financial performance in addition to the measures that have been used above, namely Re and Ru and RoI and RoE [5,7]. Performance measures that use earnings as a denominator in financial analysis, only measure the capacity of the entrepreneur as the owner of the company, while the contribution of labor (human resources) directly involved in production activities does not appear at all. The success of each business is inseparable from the expertise and skills of the

workers who operate the production process. Therefore, a solution is proposed using value added profitability (Rnt).

Rnt is the ratio of value added (profit + labor wages) to assets (investment). The results of the Rnt analysis in 2018 and 2019 were 216.68% and 316.81%, respectively, greater than 200%, meaning that the tofu agro-industry was profitable for the owner and the workforce. The total outpouring of labor per year is 926.4 HKO / year with an income of 2018 of IDR126,684 / HKO and in 2019 of IDR166,189 / HKO.

The amount of income received by the household of the entrepreneur of tofu industry is equal to the added value. Value added is the amount of profit plus salaries and wages of labor, or the difference between the value of production with the cost of raw materials and the cost of supporting materials. The amount of added value in 2018 and 2019 was IDR.117,359,600 / year and IDR154,189,131 / year respectively at IDR9,779,967 / month and IDR12,849,094 / month. If the value added is compared with the Provincial Minimum Wage (UMP) of West Nusa Tenggara in 2018 amounting to IDR1,825,000 and in 2019 amounting to IDR2,012,610, then the household income of entrepreneurs knows above the Decent Living Needs. The added value of tofu processing in North Lombok Regency in 2018 was IDR10,718 / kg and in 2019 IDR10,561 / kg was greater than the average value added of tofu processing in Mataram City IDR4,782 / kg of raw material. The added value of tofu in North Lombok Regency is greater than Mataram City due to the higher tofu price of IDR. 30,000 to IDR. 40,000 / board in North Lombok Regency, while in the city of Mataram IDR. 28,000 to IDR. 35,000 / board.

#### 4. Conclusions

- a. The net profit of the tofu agro-industry business increased by 41.07% from IDR78,512,240 in 2018 to IDR110,758,731 in 2019. The tofu agro-industry was classified as profitable when compared to the commercial loan (credit) interest of IDR 18% / year, making it possible to develop scale business and number of business units.
- b. The gross profit of the tofu agro-industry business in 2019 was IDR 111,343,965 / year, an increase of 40.67% compared to the 2018 gross profit of IDR79,154,205 / year.
- c. Salaries and wages of workers in the tofu agro-industry in 2019 amounted to IDR43,430,400, an increase of 11.80% from 2018 of IDR38,847,360.
- d. The use of capital in the tofu agro-industry business in 2019 IDR48,668,557 decreased by 10.09% compared to the amount of capital in 2018 of IDR54,127,299.
- e. Increased value-added rent (Rnt) after the 2019 earthquake by 46.12% from 216.82% in 2018 to 316.81% in 2019.

#### References

- [1] Purnamasari D K, Syamsuhaidi, Erwan and Wiryawan K G 2018 *Assistance in the Recovery of the Condition of Post-Earthquake Breed Farming in North Lombok Regency* (University of Mataram)
- [2] Suparmin, Hirsanuddin M, Yusuf and Maryanti S 2018 *Study of CSR Forum in North Lombok Regency* (University of Mataram and Bappeda)
- [3] Humaira H and Lamusiah S 2018 Psychosocial as a Form of Trauma Healing for Earthquake-Affected Children in Tanjung Village - North Lombok Regency, NTB *J. Community Serv. Synerg.* **1**
- [4] Sa'i M and S.A.Acim 2018 Trauma healing for people affected by the earthquake Gum Gum Village, Kayangan District, North Lombok *Transform. Serv. J.* **14**
- [5] Kadar D, Antara M and Muis A 2017 Tofu Business Profitability in the Afifah Tofu Industry in the City of Palu *E-journal Pharm.* **5** 238-42
- [6] Pengestu W 2013 Thu-Tempe Wenwin Business Financial Analysis
- [7] Latifah I, Rusman Y and Hardiyanto T 2016 Analysis of Value Added and Rentability of Round Tofu Agroindustry *Agroinfo J. Galuh* **3**

- [8] Astawan M and Mita W 1991 *Appropriate Vegetable Food Processing Technology* (Jakarta: Technology. Akademika Pressindo)
- [9] BPPT 1997 *Tofu-Tempe Waste Treatment Technology Using Anaerobic and Aerobic Biofilter Processes*
- [10] Dorin M 2008 *Processing Tofu Waste into Biogas* (Yogyakarta: Scientific Writing, Ministry of Health of the Republic of Indonesia, Yogya Health Polytechnic)
- [11] Rahmawati F 2013 *Tofu Processing Process Technology and Waste Utilization* (Faculty of Engineering UNY)
- [12] Rahman A 1999 Micro-credit initiatives for equitable and sustainable development: who pays? *World Dev.* **27** 67–82
- [13] Anggraini and Nasution 2013 The Role of People's Business Credit (KUR) for the Development of MSMEs in Medan City: The Case of BRI Bank *J. Econ. Financ.* **1**
- [14] Lihani R, Ngadiman and Hamidi N 2013 Analysis of Credit Management to Minimize Credit Risk: Study on PD BPR BKK Tasikmadu Karanganyar *Jupe-Journal Econ. Educ.* **1**
- [15] Riyanto B 2011 *Fundamentals of CoDRorate Spending* (Yogyakarta: BPFE)
- [16] Astuti F 2013 *Feasibility Analysis of the Tofu Niki Eco Home Industry in Soragan Hamlet, Kasihan District* (UPN Veterans Yogyakarta)
- [17] Utami N W 2018 Tips for Having Better Business Financial Management *J. entry*
- [18] Margono T, D.Suryati and Hartinah S 1983 *Food Technology Handbook*. Center for Women's Information in PDII-LIPI Development in collaboration with Swiss Development Cooperation

# Added value rentability of tofu agroindustry business in North Lombok Regency

## ORIGINALITY REPORT

6%

SIMILARITY INDEX

5%

INTERNET SOURCES

5%

PUBLICATIONS

3%

STUDENT PAPERS

## PRIMARY SOURCES

1	Submitted to Pennsylvania College of Technology Student Paper	2%
2	backend.orbit.dtu.dk Internet Source	1%
3	lppm.unram.ac.id Internet Source	<1%
4	Jiang Chengjun, Tao Kai, Du Yannan, Wang Wei. "Failure Analysis of the Autoclave Sterilizer Fracture", IOP Conference Series: Earth and Environmental Science, 2020 Publication	<1%
5	Rafiqi, O K Saidin, M Y Lubis, E Ikhsan. "Optimization of sustainable sugar industry towards food security", IOP Conference Series: Earth and Environmental Science, 2021 Publication	<1%
6	Submitted to Curtin University of Technology Student Paper	<1%



7

Ilyas, Suhendrianto, Raihan Dara Lufika, Syafira Meutia. "The integrated lean and green manufacturing system: a case study at the peeled loaf production", IOP Conference Series: Materials Science and Engineering, 2021

Publication

<1 %

8

Syarif Hidayat. "Calculation of Raw Material Costs for the Palm Oil Supply Chain Value Added Using Modified Hayami Method", IOP Conference Series: Materials Science and Engineering, 2019

Publication

<1 %

9

Ari Ramadhan Hidayat, Radianta Triatmadja, Intan Supraba. "The impact of earthquake on clean water demand and supply at North Lombok regency, Indonesia", IOP Conference Series: Earth and Environmental Science, 2020

Publication

<1 %

10

S S Tan, R Indrasti, S Handoko, A Malik, I G Cempaka. "Farming schemes and characteristics of Kalibening Avocado in Kebondalem Village, Semarang Regency, Central Java", IOP Conference Series: Earth and Environmental Science, 2021

Publication

<1 %

11

Z U Rizqi, A Khairunisa. "Implementation of Supply Chain Risk Management (SCRM) Using

<1 %

House of Risk (HOR): Case Study on Supply Chain of Craft Bag Industry", IOP Conference Series: Materials Science and Engineering, 2020

Publication

---

12

A Simorangkir, N Citrasari, S Hariyanto, A Widyastuti. "Baseline waste management data in North Lombok District", IOP Conference Series: Earth and Environmental Science, 2021

Publication

---

<1 %

13

Juniwaty K.S., Sijapati Basnett B., Thung P.H., Sanjaya I.M., Busra M.I.. "Connecting the dots in the forest-migration nexus: A case study from Malinau, Indonesia", Center for International Forestry Research (CIFOR) and World Agroforestry Centre (ICRAF), 2019

Publication

---

<1 %

14

[repository.tudelft.nl](https://repository.tudelft.nl)

Internet Source

---

<1 %

15

[www.coursehero.com](https://www.coursehero.com)

Internet Source

---

<1 %

16

N Busthanul, I Summase, M Syafiuddin, Heliawaty, T Ibrahim, R M. Rukka, Abdul R. "The role of cooperatives in marketing arabica coffee: A case study of the Benteng Alla Farmers' cooperative in Enrekang Regency, South Sulawesi, Indonesia", IOP Conference

<1 %

# Series: Earth and Environmental Science, 2021

Publication

---

17	<a href="http://china.iopscience.iop.org">china.iopscience.iop.org</a> Internet Source	<1 %
18	<a href="http://repository.unhas.ac.id">repository.unhas.ac.id</a> Internet Source	<1 %
19	<a href="http://www.science.gov">www.science.gov</a> Internet Source	<1 %
20	<a href="http://www.shifa.com.pk">www.shifa.com.pk</a> Internet Source	<1 %

---

Exclude quotes  On

Exclude matches  < 5 words

Exclude bibliography  On

# Added value rentability of tofu agroindustry business in North Lombok Regency

---

GRADEMARK REPORT

---

FINAL GRADE

**/0**

GENERAL COMMENTS

**Instructor**

---

PAGE 1

---

PAGE 2

---

PAGE 3

---

PAGE 4

---

PAGE 5

---

PAGE 6

---

PAGE 7

---

PAGE 8

---

PAGE 9

---

PAGE 10

---

PAGE 11

---

PAGE 12

---

PAGE 13

---

PAGE 14

---