The Analysis of Workforce Absorption in Food Industry of South Sumatera

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Abstract: This study aims to look at the workforce absorption in food industry of South Sumatra. This study looks at

whether there is an effect of capital on workforce absorption of the food industry in South Sumatra, the effect of wages on workforce absorption of the food industry in South Sumatra and the effect of the production value on workforce absorption of the food industry in South Sumatra. The results of the multiple regression equation show that the beta value of the capital variable is 6.75, this shows that in this study, capital has a positive relationship to the dependent variable, this positive relationship shows that capital in the food industry business has a positive influence on the workforce absorption. For the wage variable has a positive relationship of 1.70, this shows that the wage variable affects the workforce absorption of food industry in South Sumatra. Whereas for the Production Value variable shows the beta value of 7.18, which means that the production value positively affected on the workforce absorption of food industry in South Sumatra where each increase in production value of 1 percent will be followed by an increase in workforce absorption of 1 percent.

1 INTRODUCTION

Economic growth and development is a process where the government and the private sector manage existing resources and form a pattern of partnership between the government and the private sector to create new jobs and stimulate the development of economic activities. The main problem of economic growth and development lies in emphasizing economic growth and development policies based on the specificity of each region by using the potential of human resources, institutional and physical resources locally. This orientation uses initiatives which arise from the area in economic growth and development process to create employment opportunities and stimulate an increase in economic activities (Badrudin, 2012: 113).

According to Arsyad (2010: 442), the industrial sector acts as the leading sector. With the development of the industrial sector, it will spur and encourage the development of other sectors, such as the agricultural and service sector, so that it will cause widespread employment opportunities which will increase society income and purchasing power. The increase in income and purchasing power of the society shows that the economy is growing rapidly.

The industrialization process is also inseparable from efforts to improve the quality of human resources and their ability to use the natural resources and other resources optimally. This also means that industrialization is an effort to increase the productivity of human resources accompanied by efforts to expand the scope of human activities. Thus the industrialization process can be pursued with two paths at once, that is vertically indicated by the increasing of value added to economic activities and horizontally indicated by the increasingly widespread of productive employment which available to the population (Arsyad, 2010: 442).

Human resources contain two meanings. First, human resources (HR) contain the definition of work or service that can be provided in the production process. In this case, the HR reflects the business quality given by a person within a certain time to produce goods and services. The second meaning of human resources involves the ability of humans to work for providing services or work. Physically, the ability to work is measured by age. In other words, people of working age are considered capable to work. The population group in the working age is called labor or manpower (Simanjuntak, 1985: 1).

According to Irawan and Suparmoko (2008: 86) human resources have two roles in economic

development, one in terms of demand and one in terms of supply. In terms of demand, human resources act as consumers to meet their needs. Households as consumers buy goods and services from the company and in return, households will pay the price to the company. Consumers can also play a role as providers of production factors (land, labor and capital), both for producers, government and foreign communities. In terms of supply, human resources act as producers. Producers are parties that process and provide goods or services needed by consumers. To run the process of producing goods

and services, companies use labor originating from households and in return the company provides income in form of wages.

Labor is the ability of humans to spend effort each time unit to produce goods and services, both for themselves and for others. In the production process, labors combined with other factors to produce goods and services. The occurrence of the production process will create employment opportunities and the use of labor (Suroto, 1992: 53).

Table 2.1: Number of Small Industry Company, Workforce, Wage, and Production Value in Palembang 2017

Business Types	Number of Company	Number of Workforce	Production Value (Rp)
Food	539	5,308	186,507,640
Clothes and Skins	301	3,604	13,771,640
Chemical andBuilding Material	681	4,495	48,640,378
Metals and Services	615	3,768	19,146,232
Crafts and General	147	1,523	5,790,494

Source: Trade, Industry and Cooperative Office, 2017 (processed)

Based on the table above, the number of workers in Small and Medium Industries in Palembang on 2016 was recorded at 18,698 workers. The high number of workers absorbed is affected by the large number of companies. Besides the number of companies, other factors which affect the number of workers are high wage and production levels. Whereas, from five types of businesses it was noted that the type of food business that absorbed the most workforce was 5,308 thousand workers. The large amount of workforce absorbed is affected by the large number of companies, high wage rates and output values. While Crafts and General have the lowest amount of workforce. Factors affecting the low number of workers are the low number of companies and the low amount of production. Based on the description above, the researcher is interested to conduct the study entitled "Analysis of Workforce Absorption in Food Industry of South Sumatra"

2 LITERATURE REVIEW

2.1 Labor Market

According to classical theory, if the price of labor (wages) is also quite flexible, the demand for labor is always balanced with the supply of labor. There is no possibility of voluntary unemployment, means

that the real wage level that applies in the labor market, all people who are willing to work at the level of wages will get a job. Those who are unemployed are only those who are not willing to work at the prevailing wage rate (voluntary unemployed). The process of labor demand and supply in the labor market is presented in Figure

The vertical axis shows the real wages level, the horizontal axis shows the number of people working in a community. D1 is the demand curve for labor (total of needs by producers and government). S is a labor supply curve that shows how many people are willing to work at various levels of real wages. F shows the number of workforce, that is, all people who are able and willing to work.

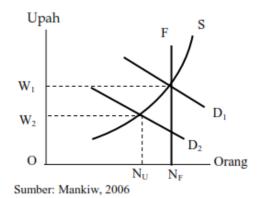


Figure 1: Classic Theory: Workforce Market

In this position, the economy is at full employment, where the entire workforce that is willing to work can work. If at one time the producer reduces its production (because many goods have not been sold), then the demand curve for labor will shift to the left to D2. The prevailing wage rate dropped from w1 to w2, and the number of people working dropped from the NF to NU. NF minus NU is the number of people who do not work, and they are voluntarily unemployed because they do not want to work at the new wage level (w2). If the prices of goods have adjusted to each other then all goods will be sold and the production level becomes "normal" again, so that D2 shifts back to D1. As a result, the full employment position is achieved again, and once again everybody who in the workforce can work, at the level of the old real wage (w1).

2.2 Demand for Labor

The production function can describe a combination of inputs, and describe the technology used by companies to produce goods and services. For simplification of analysis, we make the assumption that in producing goods and services, the company uses two types of production factors, i.e the amount of labor (L) and capital (K). So that the production function can be written as:

$$Q = f(L, K)$$

Where Q is output. The company's demand for input is derived demand, meaning that the company's demand for labor and capital is determined by consumer demand on the company's products. If the demand for company's output is large, then the possibility of demand for labor and capital is also large. That is due to entrepreneurs produce because they want to fulfill consumer demand.

The main purpose of a company in general is to maximize profit. Profit is obtained from the difference in income minus costs. Costs incurred by the company include capital costs and labor costs. In relation to the use of labor, companies will make choices about the use of labor. The company will try to use an optimal number of workforce. In relation to the demand concept, the demand for labor is defined as the number of labor demanded by the company in various kinds of labor prices or various wage levels alternative.

Demand labor means that the relationship between the level of wages and the quantity of labor

which desired by enterpreneur to be employed, it's different with consumer demand for goods and services. People buy goods because they provide utility to the buyer. While entrepreneurs employ someone because they produce goods for sale to the consumer. Therefore, an increase in the demand of enterpreneurs on labor, depends on the increase in public demand for the goods they produce. Such demand for labor is called "derived demand" (Simanjuntak, 2002). Demand for labor is affected by changes in wage levels and changes in other factors that affect demand for production (Ehrenberg, 1988):

1. Changes in Wage Levels

Changes in wage level will affect the high and low production cost of the company. If the assumption is used that the wage level rises, it will occur:

- a. Rising wage rates will increase the company's production costs,
- b. If wages increase, entrepreneurs who prefer to use capital-intensive technology for their production process and replace the need for labor with the need for capital goods such as machinery and others.
- 2. Other Factors that Affect Demand for Labor These factors include:
- a. Up and down market demand for the production of the company concerned.
- b. Price of Capital Goods. If the price of capital goods decreases, then the cost of production falls, of course, will also cause the selling price per unit of goods to decrease.

Enterpreneurs must make input choices (workers and other inputs) and outputs (types and quantities) with the right combination in order to obtain maximum profit. In order to achieve maximum profit, the entrepreneurs will choose or use input which will provide additional revenue that is greater than the addition on total revenue costs. Companies often make various adjustments to change input combinations. Demand for labors is a list of various alternative combinations of workers with other inputs. In this analysis, it is assumed that the company sells output that is truly competitive and buys inputs in a truly competitive market.

2.3 Wages Againts Workforce Absorption

Wages are receipts as compensation from the employer to the worker for the work or service which has been or will be carried out. Functioning as a

continuation of life that is worthy for humanity and production, expressed or assessed in a form which is determined according to agreements, laws and regulations, and is paid on the basis of a work agreement between the employer and the worker.

Similar opinion was expressed by (Kuncoro, 2002), where the quantity of labor demanded would decrease as a result of wage increases. If the wage rate rises while other input prices remain, then the price of labor is relatively more expensive than other inputs. This situation encourages enterpreneurs to reduce the use of labor which is relatively expensive with other inputs which are relatively cheaper in price to maintain maximum profits.

The wage function generally consists of: 1. To efficiently allocate human work, use human resources efficiently, to encourage stability and economic growth. 2. To efficiently allocate human resources, Compensation system is to attract and stir the workforce in a productive direction, encouraging productive workforce to work more productive. 3. To use human resources efficiently, the relatively high compensation is to encourage management to utilize labor economically and efficiently. In this way entrepreneurs can get profit from the use of labor. Labors get compensation based on their needs. 4. Encouraging economic stability and growth due to efficient allocation of labor usage, a compensation system is expected to stimulate, maintain stability and economic growth.

2.4 Labor Productivity Against Workforce Absorption

Labor planning is all effort to know and measure labor and employment opportunities issues in one labor market area which occurs in the present and future, and formulate business policies and appropriate and coherent steps to overcome them (Ravianto, 1989). Based on this definition, the labor planning process in its outline consists of two parts. The first is an effort to find and measure the magnitude of employment opportunities and employment problems that occur at present and in the future. The second is the formulation of business policies and appropriate and coherent steps.

According to Mulyadi (2012) states that productivity is a universal concept which aims to provide more goods and services to more people by using fewer real resources with company products so that they are associated with employee skills.

From this description, in other words, productivity is a measure of productive efficiency, a comparison between output and input. Input is often

limited by labor input, while output is measured by physical units, forms or values (Ravianto, 1989).

Labor productivity is a picture of the workers ability to produce output (Ananta, 1995) This is because productivity is the result obtained by a production unit with the amount of labor owned, with high work productivity shows the ability possessed by labor is also high. Productivity contains operational philosophical-qualitative and operational technical-quantitative. In Philosophical-qualitative, productivity contains a life view and mental attitude that seeks to improve the quality of life. Today's situation must be better than yesterday, and tomorrow's quality of life must be better than today.

For a quantitative working definition, productivity is a comparison between the results achieved (output) and the overall resources (input) used per unit of time (Payaman Simanjutak, 1985). Productivity can also be defined as a comparison between the results of work that has been achieved with the overall resources used in a given time. The unit of measure is a number that shows the ratio between output and input. Increased productivity means that workers can produce more in the same period of time, or a certain level of production can be produced in a shorter time.

2.5 Capital Against Workforce Absorption

Capital is a substitution of labor. This is based on the production function that is Q = f(K, L, R, T) where K is the amount of capital stock, L is the amount of labor and this includes various types of labor and entrepreneurial expertise, R is natural resources, and T is the level of technology used. While Q is the amount of production produced by various types of production factors, that is jointly used to produce goods which are being analyzed for their nature of production. For one certain production level, a combination of different production factors can be used. (Sukirno, 2015).

Capital can be used to enlarge a company or establish a new business. The new business can be an extension of the old business. Addition of capital on each industry will be able to increase raw materials or can develop a business (increase the number of businesses). As more businesses that are developing, it will be able to absorb a lot of workforce (Zamrowi, 2007).

According to Haryani (2002), in practice the production factors both human resources and non-human resources such as capital cannot be separated in producing goods or services. In an industry,

The development of the Food industry sector in

South Sumatra, especially small industries, is

expected to have a positive impact, i.e it can absorb a large workforce. Workforce absorption in small

industries internally is affected by the number of businesses, the level of wages, and the value of

assuming other production factors are constant, the greater the invested capital, the greater the demand for labor.

2.6 Conceptual Framework

Capital

Level of Wages

Workforce Absorption

Production Value

production.

Figure 2: Conceptual Framework

Small Business Capital and Production Value can affect workforce absorption. If the addition of capital and demand for production results of the company or industry increases, producers tend to increase their production capacity, so producers will increase their use of labor. Changing wage levels will affect employment (Simanjuntak, 1985). Rising wage rates will increase the company's production costs which will then increase the price per unit of goods produced. If prices rise, consumers will reduce consumption. So, many production of unsold goods, and forced producers to reduce the amount of production so that the required labor is also reduced.

3 METHODS

This study focused on the workforce absorption of food industry in South Sumatra. The reason for choosing the food industry sector in South Sumatra is quite a big role in terms of absorbing workforce.

This study uses Cross Sectional Primary data, which is obtained from various food industries in South Sumatra such as tofu industry, tempe industry, crackers industry and chips industry. In addition, data was also obtained through literature studies from various literatures in the form of textbooks, scientific articles / journals, other sources related to the topics discussed.

The following are the data needed in this study: Number of Workforce working in the food industry in South Sumatra, capital, Wages, and Production Value in South Sumatra in 2018.

To analyze the effect of capital, wages and production values on workforce absorption of food

industry in South Sumatra, this study uses multiple regression analysis. Multiple regression models can be formulated as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y : Workforce of Food Industry

α : Intersept

 $egin{array}{lll} X_1 & : Food Industry Capital \\ X_2 & : Wages of Food Industry \\ X_3 & : Production Value of Food \\ \hline \end{array}$

Industry

 β_1,β_2,β_3 : Coefficient Regression from each

Coefficient : Error Factor

4 FINDINGS

3

4.1 Respondend General Description

Table 4.1: Amount of Workforce Food Industry in South Sumatera

Business	Amount of	D	
Dusilless	Interval	Frequency	Percentage (%)
	1 - 4.67	94	75.81
	4.68 - 8.35	17	13.71
UK	8.36 -		
	12.03	13	10.48
	Total	124	100.00

Source: Field (processed)

Based on the table above, it can be seen that the food industry in South Sumatra is as much as 75 percent of the amount of workforce between 1-4.67 people per company, while as much as 10.48 percent of the amount of workforce in the food industry in South Sumatra between 8-12 workers in 2018. This can mean that the food industry is still on a small scale.

Table 4.2: Salary Expenses Food Industry in South

Business Salary Expenses		Percentage	
Dusiness	Interval	Frequency	(%)
	750,000 -		
	20,500,001	107	86.29
	20,500,002 -		
UK	40,250,003	9	7.26
	40,250,004 -		
	60,000,005	8	6.45
	Total	124	100.00

Source: Field (processed)

In table 4.2. the business owners spend a portion of the profits to pay wages to the food industry's workforce as much as 86 percent of 750,000 - 20,500,000 per month with the composition of the workforce between 1-4 people per month. Whereas 6.45 percent of business owners pay wages of 40,250,000 s.d. 60,000,000 for workforces between 8-13 people each month.

Table 4.3: Beginning CapitalFood Industry in South Sumatera

Business	Beginning	Percentage	
Dusiness	Interval	Frequency	(%)
	180,000 -		
	500,120,001	112	90.32
	500,120,002 -		
UK	1,000,060,003	8	6.45
UK	1,000,060,040		
	-		
	1,500,000,005	4	3.23
	Total	124	100.00

Source: Field (processed)

In average, business owner has a beginning capital of 180,000 - 500,000,000 where 112 people or 90.32 percent are obtained from family loans, sell land and borrow money at the bank. While 4 people or 3.23 percent of business owners have a beginning capital of 1,000,060,040 - 1,500,000,000 where the owner of this capital is a well-established business owner and sells the results of the industry outside the village to the district center.

Table 4.4: Origin of Workforce Food Industry in South Sumatera

Business	Origin of Workforce	Number of Respondend	Percentage (%)
	In the village	107	86.29
UK	Outside		
	the village	17	13.71
	Total	124	100

Source: Field (processed)

The origin of workforce in the food industry of South Sumatra is only detected in 2 indicators, namely in the village and outside the village, where the majority of workforces who come from within the village are 86.29 percent or as many as 107 workforces, while for workforces who come from outside the village as many as 17 people or 13.71 percent consisting of outside the village which closest to the center of the food industry.

Table 4.5: Workforces StatusFood Industry in South Sumatera

/			
Business	Workforces Status	Number of Respondend	Percentage (%)
	Family	69	55.65
	Neighbor	50	40.32
UK	Other		
	resident	5	4.03
.06-	Total	124	100

Source: Field (processed)

In table 4.5. comparing between a lot of workforce from family and outside the family, based on the results of observations in the field, it was noted that there were 69 workforces or 55.65 percent of the workforce who came from families and 40.32 percent came from neighbors, while 5 workers or 4 percent of all workforce observations whose status is other resident outside the village.

Workforces education of food industry in South Sumatra is dominated by elementary and junior high school workforces as many as 99 workers or as much as 79.84 percent, where this workforce as processing of raw materials workforce into commodities that are ready to sell, while as many as 20.17 percent or 25 workforces who have high school education, which is usually a workforce who is marketed or a business owner.

Tabel 4.6: Workforces Education Food Industry in South Sumatera

Business	Workforces Education	Number if Respondend	Percentage (%)
	Elementary School	57	45.97
	Junior High School	42	33.87
UK	Senior High School	21	16.94
	>Senior High		
	School	4	3.23
	Total	124	100

Source: Field (processed)

Table 4.7: Reason for Working of WorkforcesFood Industry in South Sumatera

Business	Reason for Working	Number of Respondend	Percentage (%)
	Based on Ability	15	12.10
	Economic Factor	55	44.35
UK	Becoming Enterpreneur	12	9.68
	As Main Job	24	19.35
	Increase an Income	18	14.52
	Total	124	100

Source: Field (process)

Based on the survey results in the food industry of South Sumatra, there are various reasons why the workforce decides to work in the food industry, where the main reason for the workforce is the economic factor associated with the education of workforces, such as elementary and junior high school so that they do not have many opportunities for work in other money sectors. While 14.52 percent and 9.68 percent of the workforce choose the reason to increase income and become entrepreneurs, respondents who choose both of these reasons were both workforces and business owners.

4.2 The Analysis of Workforce Absorption in Food Industry of South Sumatera

The results of the study have obtained quantitative data during the interview and observation process. From the data obtained then analyzed by multiple regression method and calculated from the three independent variables that is Capital, Wages and Output Value. Based on the data obtained by the

researcher, multiple regression equations can be arranged as follows:

$$Y = 2,078 + 6,75_{Capital} + 1,70_{Wages} + \\ 7,18_{Production\ Value}$$

The results of the multiple regression equation above show that the beta value of the capital variable is 6.75, this shows that in this study capital has a positive relationship to the dependent variable, this positive relationship shows that capital in the food industry business has a positive effect on the workforce absorption. For the wage variable has a positive relationship of 1.70, this shows that the wage variable affects the workforce absorption of food industry in South Sumatra.

Whereas for the Production Value variable shows the beta value of 7.18, which means that the production value has a positive effect on the workforce absorption of food industry in South Sumatra where each increase in production value of 1 percent will be followed by an increase in workforce absorption of 1 percent. The result of multiple regression estimation using statistical tools are as shown in the table below:

Table 4.8: The Result of Multiple Regression

Variable	Variable	Significance
	Value	
Constant	2.078	0.000
Capital	6.750	0.652
Wage	1.700	0.000
Production	7.186	0.003
Value		

R-Square: 0,439 F Value: 28.191 (sig = 0.000)

Source: Result of Data Processing

Based on the estimation table above, it obtained that the R-Square value is 0.439, it can be concluded that the independent variables (capital, Wages and Production Value) against the Dependent variables (Workforce) affect 43.9%, while 56.1 percent are affected by the variables which was not investigated by researchers. The capital variable does not significantly affect the workforce absorption of food industry with a significance level of 0.652 because the food industry in South Sumatra is dominated by small investors because it is only a home industry, but even though there is no significant affect, the capital variable still has a positive affect on workforce absorption in food industry.

For wage variables, it significantly affected on the workforce absorption with a significance level of 0.000 percent, meaning that wages attract workforces

to work in food industry. This is because the workforce comes from the family and the majority lived in the area around the food industry, in addition the workforces with elementary and junior high school education are difficult to be absorbed in the formal sector so that a home-based Food Industry can absorb low education workforces. Whereas the Production Value also has a significant affect on workforce absorption, where every increase in production in the food industry will increase workforce absorption as well.

From the results of the table above, it can be seen that jointly independent variables have a significant affect on the dependent variable. This can be proved by looking at the significance F-value of ANOVA table, which is equal to 0.000b or smaller than the significance level determined by the researcher that is 0.05 or 5%, then the regression transformation model can analyze capital, wages and production values together affects the workforce absorption of the food industry in South Sumatra.

5 CONCLUSION

From the results of this study, it can be concluded that for a home-based food industry (Small industry), the number of labors in the industry is between 1 - 5 people per industry, with a wage rate of 750,000 - 1,500,000 each month. Labors in the food industry originate from the village where out of 124 respondent, 107 labors were obtained from the village, with 69 families and 50 neighbors. Some labors argue that the reason they work in the food industry is due to economic factors, as the main job and increasing income.

The results of the multiple regression equation above show that the beta value of the capital variable is 6.75, this shows that in this study, capital has a positive relationship to the dependent variable, this positive relationship shows that capital in the food industry business has a positive influence on the workforce absorption. For the wage variable has a positive relationship of 1.70, this shows that the wage variable affects the workforce absorption of food industry in South Sumatra. Whereas for the Production Value variable shows the beta value of 7.18, which means that the production value positively affected on the workforce absorption of food industry in South Sumatra where each increase in production value of 1 percent will be followed by an increase in workforce absorption of 1 percent.

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