

## **Efficiency and Effectiveness of Governance Home Industry “Kerupuk Ubi Kamang” In Kamang Magek, West Sumatera**

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**Abstract:** *This research was aimed at explaining the cost efficiency, optimization of production, and economically profitable revenue of governance home industry "Kerupuk Ubi Kamang" in Kamang Magek, Agam, West Sumatera. This research was conducted in 30 home industries "Kerupuk Ubi Kamang" in 2014. This research used the identity model cost, and the production function of "Cobb Douglas" as well as the maximum profit model. The results showed that the production function was "increased returns to scale", which is economically efficient and make a profit. This research recommends to any domestic industry "Kerupuk Ubi Kamang" to retain this home industry. In addition, there needs a diversified products "Kerupuk Ubi" as a new innovation implementation.*

**Keywords:** *Production Cost, Governance Home Industry, Kerupuk Ubi Kamang*

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### **I. Introduction**

Home industry is one of the main drivers of economic growth in community that brings a positive impact on regional development that could eventually strengthen national economy. Therefore, the development of this home industry should always be concerned and should be continued to develop. The growth of home industry sector are widespread throughout the country which are customized to the potential and characteristics of each region. The deployment of home industry is a business that can create new jobs which can increase the communities income.

In addition home industry has another tough capability to absorb significant workforce, resources, and local resources. It automatically makes home industry is independent on external influences since it can provide the raw materials independently, for example raw material of cassava which is currently widely processed into cassava chips.

One of the home industry that processes cassava into cassava chips is the home industry in Kamang Magek. Kamang Magek is one of the districts in Agam Regency, West Sumatera. The cassava chips produced from raw material of cassava which had begun since 1800 in Koto Panjang. Since the origin is from Koto Panjang, the chip name is known as "Kerupuk Koto Panjang". However, currently the production of cassava chips have been developed almost to entire Kamang Magek. Therefore, it is now better known as "Kerupuk Ubi Kamang". The difference from these cassava chips is only in terms of the size which is bigger compared to the beginning of the business but the taste and shape are still maintained because the characteristics of "Kerupuk Ubi Kamang".

The production management of "Kerupuk Ubi Kamang", has been carried from generation to generation, has made this business survived until now. Nevertheless, it seems necessary to do an assessment whether the current production is already optimal of cost as well as output. The mindset that still evolves today is that the cassava chips business is a generation down legacy which authenticity must be preserved, making the entrepreneurs of cassava chips still retain the ways of producing it. In addition to the production system that has been done hereditary, the management is also traditional and simple. Therefore, there is lack of interest for industry players to increase the yield of industry.

Based on these issues, the objective of this research was strengthened at the home industry players of "Kerupuk Ubi Kamang" in order to achieve efficiency and effectivity. The benefit of this research is the production process of "Kerupuk Ubi Kamang" can be done efficiently and effectively in terms of input use, revenue and governance so the home industry "Kerupuk Ubi Kamang", can continue to develop.

### **II. Theory of Production**

Production is related to the process of how the resource (input) is used to produce output. Mankiw (2000) states that production function as transformation from input to output at a specific time. Nicholson (2005) states that the relationship between input and output can be formulated by a production function which can be written mathematically as follows:

$$Q = f(K, L, M, \dots)$$

Where Q is the output produced during a given period, K is the capital used during the period, L is the labor and M is the material (raw material) used in the production process within the related period. From the

available input, every company wishes to acquire maximum result according to the highest level of technology at the time.

Furthermore, Nicholson (2005) and Burkett (2006) suggest that there are several concepts about the relationship between input and output:

a. Marginal Production (Marginal Product)

To determine the impact of change in one of the production factor towards output, it is necessary to understand the concept of marginal product. The marginal product of an input is additional output that can be obtained by adding the respective inputs by one unit, while the other inputs are considered constant.

Based on the concept of production function, marginal product consists of marginal product of labor and marginal product of capital. Marginal product of labor is the additional output generated due to the addition of one unit of labor input. Marginal product of labor ( $MP_L$ ) is mathematically written as follows:

$$\text{Marginal Product of Labor} = MP_L = \frac{dQ}{dL} = f_L$$

Meanwhile, marginal product of capital is the additional output generated due to the addition of one unit of capital input. Marginal product of capital ( $MP_K$ ) is mathematically written as follows:

$$\text{Marginal Product of Capital} = MP_K = \frac{dQ}{dK} = f_K$$

The marginal product of the last input unit is not always the same magnitude. When the input used is still low, the marginal product is usually very high, but more and more input is used, while other inputs are held constant, the marginal product will decrease.

**b. Diminishing Marginal Productivity**

The assumption of diminishing marginal productivity is very important in economic analysis. If the company adds an input (example labor), the result will follow the law of diminishing returns because the constant input will become over utilized. Mathematically the assumption of diminishing marginal productivity is denoted as follows:

$$\frac{\partial MP_k}{\partial k} = \frac{\partial^2 f}{\partial k^2} = f_{kk} = f_{11} < 0$$

$$\frac{\partial MP_l}{\partial l} = \frac{\partial^2 f}{\partial l^2} = f_{ll} = f_{22} < 0$$

**III. Theory of Production Cost**

According to Rosyidi (2004), production cost is the cost incurred by the employers in order to produce output. The cost of each output depends on two things, first, how much cost the company has spent to gain input, namely the input price and second, the efficiency of the related company in using the inputs.

It is assumed that the production use two inputs, capital (K) and labor (L). Both inputs are homogeneous. Labor (L) is measured in labor wage rate (w) while capital (K) is measured with a capital interest (r). Both production factors can be traded in the market at the established price level (Nicholson, 2005).

With above assumption then the definition of total cost is as follows:

$$TC(Q) = wL + rK$$

In this case, “w” is the labor wage rate, “r” is the capital interest and “ $Q_0$ ” is the desired production rate. Using the production function of Cobb-Douglas, the production function can be formulated as follows:

$$f(K, L) = AK^\alpha L^\beta$$

To minimize the production cost in order to produce a certain output, the company will select a point on the isoquant where the rate of technical substitution (RTS). The best way to solve the problem of cost minimization is by using Langrangian technique (Nicholson, 2005) as follow:

$$\mathcal{L} = wL + rK - \lambda(Q_0 - f(K,L))$$

Where “ $wL + rK$ ” is the total cost minimized, while “ $Q_0 - f(K,L)$ ” is the constraint (subject to constraint). “Ma” for cost minimization is as follows:

$$\frac{\partial \mathcal{L}}{\partial L} = w - \lambda \frac{\partial f}{\partial L} = 0$$

$$\frac{\partial E}{\partial K} = r - \lambda \frac{\partial E}{\partial K} = 0$$

$$\frac{\partial E}{\partial \lambda} = Q_0 - f(K, L) = 0$$

If it is substituted into the first derivative of above equation, then it is obtained:

$$\frac{w}{r} = \frac{\partial f / \partial L}{\partial f / \partial K} = RTS_{LK}$$

The equation above shows that companies that want to minimize cost should equate the RTS for both inputs by a ratio of the prices in the market. The number of Lagrangean multiplier (Lagrangean multiplier,  $\lambda$ ) is:

$$\lambda = \frac{w}{\partial f / \partial L} = \frac{r}{\partial f / \partial K} = \frac{\partial TC / \partial L}{\partial f / \partial L} = \frac{\partial TC / \partial K}{\partial f / \partial K} = \frac{\partial TC}{\partial Q} = MC$$

Therefore,  $\lambda$  can be interpreted as the marginal cost, which is the additional cost spent to produce one additional unit of output. From the equation above it can be seen that the additional cost to produce one additional unit is equal, either by using more K or more L because at the point that gives the lowest cost, each input produces the same marginal productivity for every rupiah spent.

#### IV. Profit

According to Nicholson (2005), the goal of a company is to make profit. Therefore, every company will select the best combination of input and most profitable output level. In conducting activities the company will sell goods on various levels of output (Q). From this sale the employers will receive income (revenue) of P (Q) x Q = R (Q). It can be seen that the total income depends on the amount of goods sold. In the production process, cost of C (Q) is required in which the sum also depends on the amount of goods produced. The difference between total incomes with cost is called profit and can be written mathematically as follows:

$$\pi(Q) = P(Q) \cdot Q - C(Q) = R(Q) - C(Q)$$

#### V. Corporate Governance

Corporate governance is a system that aims to protect the investors from opportunistic behavior of the company's management. Corporate governance can be defined as a system that is carried out by all parties concerned with the company to conduct their businesses well, in accordance with the rights and obligations of each party in order to increase the welfare of all parties (Trisnantari, 2010).

In the mechanism of good corporate governance, the board has a very important role. Good corporate governance explains how the company should be directed and supervised, such as the setting of the goals of the company and monitoring of performances related to the goals that have been established. Good corporate governance will give encouragement to the board and management to achieve the goals, which is the interest of the company and its shareholders (Trisnantari, 2010).

#### VI. Materials and Methods

This research used a survey method on the cassava chips entrepreneurs in Kamang Magek. According to Ottawa (2003) a survey is any activity that collects information in an organised and methodical manner about characteristics of interest from some or all units of a population using well-defined concepts, methods and procedures, and compiles such information into a useful summary form. A survey can be understand as comprising of district characteristics which relate to the way in which information about the object of study is gathered (Unyimadu, 2005). Survey research is to answer questions that have been raised, to solve problems that have been posed or observed, to assess needs and set goals, to determine whether or not specific objectives have been met, to establish baselines against which future comparisons can be made, to analyze trends across time, and generally, to describe what exists, in what amount, and in what context." (Isaac & Michael, 1997). In survey research (Glasow, 2005), independent and dependent variables are used to define the scope of study, but cannot be explicitly controlled by the researcher. Before conducting the survey, the researcher must predicate a model that identifies the expected relationships among these variables. The survey is then constructed to test this model against observations of the phenomena.

Pinsonneault and Kraemer (1993) defined a survey as a "means for gathering information about the characteristics, actions, or opinions of a large group of people". The primary data in this research were obtained directly from the main source of cassava chips entrepreneurs of "Kerupuk Ubi Kamang" in District of Kamang Magek, Agam Regency West Sumatera. Meanwhile, the secondary data were obtained from literature review

and relevant institutions that support this research. The location of this research was district of Kamang Magek. The sample in this research was determined by using purposive random sampling technique. The entrepreneurs of “Kerupuk Ubi Kamang” in this of research were 30 respondents. Furthermore, the data were analyzed by using:

- a. Input Model (Cost Input), including varied variable cost for each respondent, namely cassava and seasoning becomes variable of study. Meanwhile, electricity cost, labor and depreciation cost are constant because the production is calculated per once production activity. So, each respondent does not show variation data. Thus, model is cost  $C_i = P_{X_1} \cdot X_{1i} + P_{X_2} \cdot X_{2i}$  where  $C_i$  is the average total cost of each production activity,  $P_{X_1}$  = the average cassava price per kg,  $X_{1i}$  = the average use of cassava input of each production activity,  $P_{X_2}$  = the average seasoning price per kg and  $X_2$  = the average use of seasoning of each production.
- b. Production Model of “Kerupuk Ubi Kamang” by using Cobb-Douglas production function with model  $Y_i = X_{1i}^\alpha X_{2i}^\beta u^{\epsilon}$  then transformed again into the form of Double Log structural equation, so that the model becomes  $\log Y_i = \alpha \log X_{1i} + \beta \log X_{2i} + \epsilon_i$ , where  $Y_i$  is the production (output) of “Kerupuk Ubi Kamang”,  $X_{1i}$  is the use of cassava per production and  $X_{2i}$  is the use of support material (seasoning) per production. Furthermore, the data are estimated by using OLS technique (Ordinary Least Square).
- c. Revenue Model, Systematically revenue can be expressed as the multiplication between the number of production with the selling price of unit. This statement can be written with the following formula:

$$R(Q) = P(Q) \times Q$$

The theory of revenue is the basic consideration of cassava chips entrepreneurs in determining the amount of output produced and sold. Furthermore, it is also used to identify and analyze the Economic Efficiency of Input Use and Determination of Optimal Production based on the input price and output price of cassava in the market by forming model in the form of Langrangian equation  $L = X_{1i}^\alpha X_{2i}^\beta + \lambda (C_i - P_{X_1} \cdot X_{1i} - P_{X_2} \cdot X_{2i})$ . Therefore, the optimal production and efficient use of input can be determined. Efficiency test is used to see whether the input or production factors used in the business of cassava chips in District of Kamang Magek is already efficient or not. The efficiency used in this study is the economic efficiency. Meanwhile, the determination of optimal output is based on the use of production input of “Kerupuk Ubi Kamang” in District of Kamang Magek.

- d. Profit, the difference between total income with total cost

$$\pi(Q) = P(Q) \cdot Q - C(Q) = R(Q) - C(Q)$$

If the total income is greater than the total cost then profit is obtained. On the other hand, if the total cost is greater than the total income the company will suffer a loss. If the total income is equal to the total cost then break even (Break Even Point) is reached.

## VII. Results and Discussions

### Output of “Kerupuk Ubi Kamang”

In this research, the factors that influence output of “Kerupuk Ubi Kamang” were labor, equipment depreciation, electricity, cassava and complementary seasoning in using the Cobb Douglas production function. In this research is the number of cassava chips “Kerupuk Ubi Kamang” in one production process does not consider technology. The labor involved in the production process is the labor that comes from the family of the home industry owner itself. Thus, variables of labor and depreciation and electricity become constant.

Based on the assumptions then the production function used in the study becomes  $Y_i = f(X_{1i}, X_{2i})$  which is transformed into Cobb Douglas structural equation  $Y = X_1^\alpha X_2^\beta$  then transformed again into Double Log structural equation  $\log Y_i = \alpha \log X_{1i} + \beta \log X_{2i} + \epsilon_i$ , where variable  $Y$  is the output of “Kerupuk Ubi Kamang”. In one production process while variable  $X_1$  is the input use of cassava and  $X_2$  is the input use of complementary seasoning in one production process.

After the estimation result is obtained, some prerequisites classic assumption tests were conducted including; Residual Normality Test, Autocorrelation Test, Heteroscedasticity Test and Multicollinearity Test. The classic assumption tests results show that based on residual normality test, the distribution data were normal. Meanwhile, the result of autocorrelation, heteroscedasticity and multicollinearity tests did not violate the principle of the test results.

The estimation result of “Kerupuk Ubi Kamang” production function above can be written mathematically in the form of structural equation as follows;

$$\log(Y_i) = 0,85 \log(X_{1i}) + 0,42 \log(X_{2i}) + \epsilon_i$$

$$\text{Or} \\ Y_i = X_{1i}^{0,85} X_{2i}^{0,42}$$

The structural equation of output “Kerupuk Ubi Kamang” above shows that the production condition of “Kerupuk Ubi Kamang” is “increasing return to scale”, where every additional inputs of 1 (one)% will increase

the output by 1,20 percent. In addition, the input coefficient of cassava ( $X_{1i}$ ) of 0,85 and the coefficient of complementary seasoning ( $X_{2i}$ ) of 0,42 are significant on  $\alpha = 10\%$ . Both variables have contributed to the output of "Kerupuk Ubi Kamang" by 62,64% while the remaining 37,36 % is the contribution of other variables not included in the production estimation (output) of "Kerupuk Ubi Kamang". From the coefficient values obtained, it shows that the effect of input variable of cassava is greater compared to the effect of input variable of complementary seasoning to the production of "Kerupuk Ubi Kamang".

The input coefficient of cassava ( $X_{1i}$ ) in the amount of 0,85% means that every additional input of cassava by 1 (one) % will increase the production of "Kerupuk Ubi Kamang" by 0,85%. In the meantime, the input coefficient of complementary seasoning ( $X_{2i}$ ) of 0,42 means that every additional input of seasoning by 1 (one) % will increase the production of "Kerupuk Ubi Kamang" by 0,42%.

### Production Cost of "Kerupuk Ubi Kamang"

Production cost of "Kerupuk Ubi Kamang" that is observed here is specifically for variables of cassava and complementary seasoning in one time production which will be explained by using identity equation of production cost of "Kerupuk Ubi Kamang" for both variables as follows

$$C_i = P_{X1} X_{1i} + P_{X2} X_{2i}$$

Where  $C_i$  is the average production cost in one production process,  $P_{X1}$  is the average price of cassava per kg,  $X_{1i}$  is the use of cassava in one production,  $P_{X2}$  is the price of complementary seasoning per kg,  $X_{2i}$  is the use of complementary seasoning per kg in one production process.

Based on the data collected from 30 respondents from home industry "Kerupuk Ubi Kamang", it was found that the average total production cost of "Kerupuk Ubi Kamang" in one production process is Rp.350.000,00, which consists of fixed cost Rp.200.000,00 (labor cost Rp.160.000,00 and depreciation cost Rp.40.000,00). Meanwhile, the difference between total cost and fixed cost is the variable cost with the amount of Rp.150.000,00. The data obtained from the respondents of home industry "Kerupuk Ubi Kamang" shows the average price of cassava input ( $X_1$ ) is Rp.3.500,00 for each kilogram while the average price of complementary seasoning input ( $X_2$ ) is Rp.15.000,00 for each kilogram. Therefore, based on these data the identity equation of production cost "Kerupuk Ubi Kamang" in one production process is as follows;

$$350000 = 3500X_{1i} + 15000 X_{2i}$$

From the equation it can be seen that one production process of "Kerupuk Ubi Kamang" requires average production cost of Rp.350.000,00 with an average cassava price per kg of Rp.3.500,00 and an average complementary seasoning price per kg of Rp.15.000,00.

### Optimal Production of "Kerupuk Ubi Kamang"

In making production every entrepreneur aims to optimize the production. If home industry entrepreneurs of "Kerupuk Ubi Kamang" aim to optimize production in every production process, with constraint in production cost, then Langrangian principle can be used. By using the principle of Langrangian, the amount of cassava input and complementary seasoning input used in one production process give the optimal result. Based on the estimated result which is converted into Cobb Douglas production function and production cost function, the Langrangian function can be made as follows:

$$L = X_{1i}^{0,85} X_{2i}^{0,42} + \lambda (350000 - 3500X_{1i} - 15000 X_{2i})$$

Furthermore, the differential result of  $X_1$ ,  $X_2$ , and  $\lambda$  are;

$$\frac{dL}{dX_1} = 0,85 \frac{X_2^{0,42}}{X_1^{0,15}} - 3500\gamma = 0$$

$$\frac{dL}{dX_2} = 0,42 \frac{X_1^{0,85}}{X_2^{0,58}} - 15000\gamma = 0$$

$$\frac{dL}{d\gamma} = 350000 - 3500X_{1i} - 15000 X_{2i} = 0$$

$$\text{Thus, } X_2 = 0,23X_1 \text{ or } X_1 = 4,30X_2$$

To obtain the amount of cassava input ( $X_1$ ) and complementary seasoning input ( $X_2$ ) used in the optimal production of "Kerupuk Ubi Kamang", the result is substituted alternately.

Use of cassava input ( $X_1$ );

$$350000 = 3500X_{1i} + 15000 X_{2i} \text{ (substitute } X_2 \text{ to } X_1)$$

$$350000 - 3500X_{1i} - 15000 (0,23X_{1i}) = 0$$

$$350000 - 3500X_{1i} - 3450X_{1i} = 0$$

$$\text{Thus, } 350000 = 6950 X_1 \rightarrow X_1 = 50 \text{ kg}$$

Use of complementary seasoning ( $X_2$ ) becomes

$$\begin{aligned} 350000 &= 3500X_{1i} + 15000 X_{2i} \text{ (substitute } X_1 \text{ to } X_2) \\ 350000 - 3500(4,30X_{2i}) - 15000 X_{2i} &= 0 \\ 350000 - 15050X_{2i} - 15000X_{2i} &= 0 \\ \text{Thus, } 350000 &= 30050 X_1 \rightarrow X_1 = 12 \text{ kg} \end{aligned}$$

Thereby, to obtain the output of "Kerupuk Ubi Kamang" in each production process, a cassava input of 50 kg and complementary seasoning input of 12 kg are used. If the input use is carried based on the findings of this research, the output of "Kerupuk Ubi Kamang" will be optimal with  $Y$  (output) =  $X_{1i}^{0,85} X_{2i}^{0,42}$ , by substituting the value of  $X_{1i}$  and  $X_{2i}$  into output equation ( $Y$ ) then the result is:

$$\begin{aligned} Y_i &= (50)^{0,85} (12)^{0,42} \\ Y &= 79 \text{ kg} \end{aligned}$$

The value of 79 kg indicates that if the production result in each production is 79 kg then the home industry entrepreneurs of "Kerupuk Ubi Kamang" will produce at an optimal level. If the average production cost of "Kerupuk Ubi Kamang" is Rp.10.000,00 per kilogram, the revenue received by home industry "Kerupuk Ubi Kamang" in each production is Rp.790.000,00 by multiplying the price per kilogram with total production (Rp.10.000,00 x 79 = Rp.790.000,00).

#### Determination of Efficiency of Use of Input

To see the use of cassava input and complementary seasoning for every production, the cost included in the calculation is the variable cost of Rp.150.000,00 as this cost can be made efficient.

Use of cassava input ( $X_1$ );

$$\begin{aligned} 150000 &= 3500X_{1i} + 15000 X_{2i} \text{ substitute } X_2 \text{ to } X_1 \\ 150000 - 3500X_{1i} - 15000 X_{2i} &= 0 \\ 150000 - 3500X_{1i} - 15000 (0,23X_{1i}) &= 0 \\ 150000 - 3500X_{1i} - 3450X_{1i} &= 0 \\ \text{Thus, } 150000 &= 6950 X_1 \rightarrow X_1 = 22 \text{ kg} \end{aligned}$$

Use of complementary seasoning input ( $X_2$ );

$$\begin{aligned} 150000 &= 3500X_{1i} + 15000 X_{2i} \text{ (substitute } X_1 \text{ to } X_2) \\ 150000 - 3500(4,30X_{2i}) - 15000 X_{2i} &= 0 \\ 150000 - 15050X_{2i} - 15000X_{2i} &= 0 \\ \text{Thus, } 150000 &= 30050 X_1 \rightarrow X_1 = 5 \text{ kg} \end{aligned}$$

Therefore, the result obtained from the use of cassava input in each production is 22 kg while the use of complementary seasoning input is 5 kg. In one production process, home industry "Kerupuk Ubi Kamang" will be able to optimally produce output of 79 kg "Kerupuk Ubi Kamang" with an average price of Rp.10.000,00 and hence the total revenue obtained by this home industry is Rp.790.000,00. Meanwhile, the total cost incurred is Rp.350.000,00 so there is a margin of Rp.440.000,00 for each production. The total income greater than total cost incurred for each production by the home industry "Kerupuk Ubi Kamang", it can be interpreted that each production process brings economic profit. By having economic profit in production shows good prospect for this home industry to retain and continue to grow in the future.

The expected development from this home industry can be maximized by doing a variety of innovation and diversification of product that requires improvisation and knowledge from the industry players in viewing the market opportunities at a much larger scale. Innovations to develop the product may include the taste, packaging or the shape of the product itself. In addition, market opportunities that have not been maximum utilized can be optimized through the governance of business management as a more modern marketing system. It has not been done optimally where this product is only marketed traditionally by targeting local markets around the place of production.

Several ways can be done to increase the market and expand the market network by utilizing the cooperatives to accommodate the product of "Kerupuk Ubi Kamang" and collectively bring the product to national as well as global markets. Moreover, the increase in product marketing can also be achieved through cooperation with retailers that already have broad marketing network such as supermarkets and national supermarkets.

This research was supported by Rahman and Rasulong (2015) that the creative economy increases community incomes, as well as its contribution to Gross Regional Product. Usman, Suman, Luchman and Wahib (2014) found the activities tapper palm farmers in South Halmahera district contributing to increase the socio-economic welfare of farmers tapping palm. Yarnest (2015) found the challenges in managing the ceramic industry is tremendous which influence the development and competitiveness. Internal factors which are

determined by production development (natural resources, art & culture), marketing, human resources, and financial, impacted the development of small scale ceramic industry. External factors determined by local competitors, consumers, foreign products (China) impacted the development of small scale ceramic industry.

### **VIII. Conclusion**

This research concluded that the problem faced by the home industry players of “Kerupuk Ubi Kamang” is the mindset from industry players that is not optimal in increasing the potential of this industry. The factors that influence the production of “Kerupuk Ubi Kamang” were cassava and complementary seasoning by contribution 62,64%, with the condition of increasing return to scale, which means that increase of input can increase greater output than the input increase. The average total production cost of “Kerupuk Ubi Kamang” in one production process is Rp.350.000,00, which consists of fixed cost of Rp.200.000,00 and variable cost of Rp.150.000,00, which consists of cassava input ( $X_1$ ) and complementary seasoning input ( $X_2$ ). The average price of cassava input per kilogram is Rp.3.500,00 while the average price of complementary seasoning per kilogram is Rp.15.000,00.

The analysis result of input efficiency of home industry “Kerupuk Ubi Kamang” is the use of cassava input in each production is 22 kg and complementary seasoning input is 5 kg. In one production process, the home industry entrepreneurs will be able to optimally produce 79 kg output of “Kerupuk Ubi Kamang” at an average price of Rp. 10.000,000 per kilogram and hence the total revenue earned by the home industry entrepreneurs is Rp.790.000,00. Meanwhile, the total cost incurred is Rp.350.000,00 so the margin is Rp.440.000,00. This indicates that in each production process, the home industry “Kerupuk Ubi Kamang” is capable to earn economic profit of Rp.440.000,00. The governance is not optimized by the home industry “Kerupuk Ubi Kamang” which can be seen from the limited market share and the market target that is locally.

### **IX. Recommendation**

Based on the findings, cooperation is expected between industry players and cooperatives in order to increase and extend product marketing. Cooperatives can also support the capital loans to the home industry players of “Kerupuk Ubi Kamang” in District of Kamang Magek, Agam Regency. In addition, there needs optimal role of local government in supporting and empowering the home industry “Kerupuk Ubi Kamang”.

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