Abstract: This study discusses the influence of the production cost management model on increasing the income of the blacksmith craftsmen in Nagari Sungai Pua, Sungai Pua District, Agam Regency. The purpose of this research is to find out the amount of costs incurred by the craftsmen every quarter and to find out how much income the blacksmith craftsmen earn each quarter. This type of research that the authors do is quantitative research. The population in this study were all 162 blacksmith industries in Nagari Sungai Pua. As for the results of the research that the author did, the effect of costs on the income of blacksmith craftsmen in Kenagarian Sungai Pua, Sungai Pua Subdistrict, Agam Regency, was that the total costs and income fluctuated every quarter, but at the end of 2010 the income of blacksmith craftsmen experienced a very drastic decrease while the costs incurred issued is getting bigger and bigger. Furthermore, by using the Fcount analysis where the Fcount of 9.285 is greater than the Ftable of 9.07, then Ho is accepted and Ho is rejected. And lastly, by using the Tcount value of the raw material variable cost of 1.696, while the T table is 1.646, it means that Ha is accepted and Ho is rejected. The Tcount value of the labor cost variable is 0.628, while Ttable is 0.675, meaning that Ha is rejected and Ho is accepted. The value of T counts for factory overhead costs is 4.342 while Ttable is 4.015, meaning that Ha is accepted and Ho is rejected.

Keywords: Model, Increasing Income, Community

INTRODUCTION:

The development of an area is basically a form of ongoing development in that area. To implement this development, a region is required to be able to take advantage of the potential of the area that is owned so that it can be utilized by the community in order to meet needs and improve living conditions that are better than before. To fulfill this, a region needs to develop and improve the economic conditions of the community in an effort to increase the rate of economic growth in the region. Basically the regional growth rate does not mean that development can make a major contribution to the region. However, it is far more important to develop an attitude of regional independence in order to be able to

1 Tulus T.h. tambunan, Small and Medium Enterprises in Indonesia: Some Important Issues, (Jakarta: 2002), h. 52
manage and develop the potential of existing resources for the benefit of society. In accordance with government policy, in which development must be carried out evenly, grow and adapt to the times, as an effort to increase the aspire development, the government and the community must be able to establish a working relationship and work hand in hand with each other for its implementation.

This can be realized if the economic sector is a driving force in development which ultimately affects the use of space that is environmentally sound. So as to produce a policy and strategy in optimizing the resources owned by the region. Activities and steps for implementing regional development cover all aspects of life including ideological, political, economic, social, cultural and defense and security aspects. Regional development is carried out with special approaches and characteristics which are the identity of the region itself, including in the industrial sector. Development in the industrial sector is directed towards national economic independence, increasing the ability to compete domestically and abroad by always maintaining the preservation of environmental functions, this can be seen in the Government Regulation of the Republic of Indonesia No. 17 of 1986 concerning Regulation, Development and Industrial Development and Law no. 16 of 2009 concerning industrial areas. Industrial development is aimed at strengthening the structure of the national economy with strong linkages and mutual support between sectors, increasing the resilience of the national economy, expanding employment and opportunities trying to simultaneously encourage the development of activities in various other development sectors.

Furthermore, an industry must be able to combine the 6M factors of production (man, money, method, machine, material and market). From the elements of this production factor where the human factor or labor is the main factor because with labor and human thought they are able to solve various problems faced in meeting development needs. Efforts to achieve the above policies are carried out in various ways to realize a balance in the growth of the traditional business sector and the modern sector. This encouragement is aimed at sectors that can expand and create jobs as well as business opportunities and strengthen the conditions of the economically weak groups.

Efforts taken in development are also carried out in the small industry sector. Small industry is an industry that operates with a small number of workers, simple equipment, but the overall number of people involved is quite large, because this industry also includes households. Small industrial activities use human power to be able to process goods so that they can be used to meet the needs of life and also provide business opportunities. In this case small industries are directed to expand employment, business opportunities, foster self-sufficiency and increase the development of small industries, because this industry also absorbs labor, where the capabilities achieved by the industry further increase production value.

It must be acknowledged that small and medium enterprises are an important and strategic potential in the national economy, because they have a large number. Small and medium enterprises also spread to rural areas. The contribution of small and medium businesses is very clear, the dominant number of small and medium enterprises is able to provide 99.04% of employment. This means that in any sector it is open to the wider community that small and medium enterprises have a real contribution so that the ability to generate economic recovery will also be determined by the provisions of these small and medium enterprises.

One of the small craft industries that is expected to develop in West Sumatra is the blacksmith craft industry.

---

2 Iskandar Putong, *Introduction to Macro and Micro Economics*, (Jakarta: Media Discourse Partners, 2010), h. 205

3 Delly, *Fostering Small Craftsman's Businesses In Rural Areas*, (Jakarta: LP3ES, 1990), h. 209

4 M. Manulang, *Introduction to National Productivity*, (Jakarta: LP3ES), h. 330

5 Tulus T.H. tambunan, *On. Cit.*, h. 55

located in Nagari Limo Suku which is directly supervised by the Sungai Pua nagari institution under the guidance of the National Industry Agency. Based on the fact that this blacksmith industry supports the economy of blacksmith craftsmen in Sungai Pua even though there are fluctuations in production costs every month. This phenomenon also does not result in a significant loss or decrease in income for the income of these craftsmen. However, in 2020 and 2021 there will be a decrease in the amount of production and production costs will increase and income will decrease. This was due to the difficulty in obtaining raw materials and the increasingly expensive prices, causing many blacksmith craft industries to go out of business.

From the results of the initial survey conducted by the authors, there were 162 blacksmiths in Kenagarian Sungai Pua. To see the costs incurred, it can be seen in the following table:

Table. 1.1. Production Amount, Production Cost, and Income of 20 Blacksmith Craft Industries

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Production Amount</th>
<th>Production Cost</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Product</td>
<td>11,200.00</td>
<td>24,000.00</td>
<td>572,018.00</td>
</tr>
<tr>
<td>2</td>
<td>Product</td>
<td>15,000.00</td>
<td>28,000.00</td>
<td>572,018.00</td>
</tr>
<tr>
<td>3</td>
<td>Product</td>
<td>11,400.00</td>
<td>24,000.00</td>
<td>572,018.00</td>
</tr>
<tr>
<td>4</td>
<td>Product</td>
<td>9,155.00</td>
<td>25,000.00</td>
<td>586,882.00</td>
</tr>
<tr>
<td>5</td>
<td>Product</td>
<td>8,308,682.44</td>
<td>39,000.00</td>
<td>586,882.00</td>
</tr>
<tr>
<td>6</td>
<td>Product</td>
<td>32,209.00</td>
<td>34,000.00</td>
<td>492,672.00</td>
</tr>
<tr>
<td>7</td>
<td>Product</td>
<td>25,809,142.50</td>
<td>32,000.00</td>
<td>259,000.00</td>
</tr>
<tr>
<td>8</td>
<td>Product</td>
<td>11,361,259.00</td>
<td>32,000.00</td>
<td>324,972.50</td>
</tr>
</tbody>
</table>

Source: Self-Processed Data

From the table above it can be seen that the total labor costs are greater than the raw material costs and factory overhead costs + 60%. The study related to the production cost management model for increasing the income of the blacksmith craftsmen community was carried out with several background problems including the following: 1) The effect of production costs on the income of blacksmith craftsmen in Nagari Sungai Pua; 2) Total production costs incurred by the craftsmen in running the blacksmith craft business; 3) What costs must be incurred by the craftsmen. The limitations of the problem in this study are: How far the influence of raw material costs, labor costs and factory overhead costs on the income of blacksmith craftsmen in Kenagarian Sungai Pua, Sungai Pua District, Agam Regency. The formulation of the problem in this discussion is "How big is the influence of the Production Cost Management Model on Increasing the Income of the Blacksmith Craftsmen Community in Nagari Sungai Pua, Sungai Pua District, Agam Regency".

METHOD:
1. Types of research

This type of research is quantitative descriptive research that provides an overview and description of the variables studied, then estimates the existing data in the form of numbers. Is there any influence between other variables on increasing the income of blacksmith craftsmen in Nagari Sungai Pua, Agam Regency.

2. Data source

The data collected in this study comes from:

a. Primary data sources, namely data obtained directly from the object to be studied. This data the writer obtained from interviews and observations.

b. Secondary data sources are data obtained from institutions. One of them is from Wali Nagari Sungai Pua, Sungai Pua District, Agam Regency

3. Population and Sample

The population is all research subjects. In this study the population was all blacksmith craftsmen in Nagari Sungai Pua, Agam Regency, namely 162 people. The sample is partly representative of the population studied. The technique used in sampling is random sampling technique (random sample) selected for characteristics that are considered representative of the entire population. According to Suharsimi Arikunto, in taking this sample the subjects

---

7 Suharsimi Arikunto, Community Research Methods, (Jakarta: PT. Bima Aksara, 1998), p. 102
8
are less than 100, it is better to take all of them so that the research is a population study. Furthermore, if the number of subjects is large, it can be taken between 0-15% or 20-25% or more. In this case, the author makes the sample 20 craftsmen.

4. Data Collection Techniques and Tools

The data collection technique that the author uses is by using an interview system, this method is used to obtain primary data which is carried out by conducting interviews with blacksmith craftsmen in Nagari Sungai Pua, Agam Regency.

5. Data analysis

In conducting an analysis related to the income of blacksmith craftsmen, the authors use data techniques, as follows:

a. Multiple linear Regression

To analyze the effect of production costs on blacksmith craft income, the following formula is used:

\[ \bar{Y} = a + b_1 \bar{X}_1 + b_2 \bar{X}_2 + b_3 \bar{X}_3 \]

\[ \bar{Y} = \text{Blacksmith Craftsman's Income} \]

\[ \bar{X}_1 = \text{Cost of Raw Materials} \]

\[ \bar{X}_2 = \text{Labor Costs} \]

\[ \bar{X}_3 = \text{Factory Overhead Cost} \]

\[ a, b = \text{Regression Coefficient} \]

Where:

\[ b_1 = \frac{(\sum X_1 Y)(\sum X_1^2)(\sum X^2) - (\sum X_1 X_1 Y)(\sum X_1 X_2 X_3)}{(\sum X_1^2)(\sum X_2^2)(\sum X^2) - (\sum X_1 X_2 X_3)^2} \]

\[ b_2 = \frac{(\sum X_1 Y)(\sum X_1^2)(\sum X_1^2) - (\sum X_1 X_1 Y)(\sum X_1 X_2 X_3)}{(\sum X_1^2)(\sum X_2^2)(\sum X_1^2) - (\sum X_1 X_2 X_3)^2} \]

\[ b_3 = \frac{(\sum X_1 Y)(\sum X_1^2)(\sum X_1^2) - (\sum X_1 X_1 Y)(\sum X_1 X_2 X_3)}{(\sum X_1^2)(\sum X_2^2)(\sum X_1^2) - (\sum X_1 X_2 X_3)^2} \]

b. Correlation

To see the relationship between the independent variables and the dependent variable, the multiple correlation formula is used. Multiple correlation

\[ R^2 = \frac{SS_b}{\sum y^2} \]

c. F. Analysis Test

This analysis is used to examine whether the success rate of the coefficient is significant or not with the following formula:

\[ F = \frac{R^2/K}{(1-R^2)/(n-k-1)} \]

Where:

\[ K = \text{number of independent variables} \]

\[ n = \text{number of samples} \]

Hence:

Ho = Meaningful

Ha = not significant

If \( F_{\text{count}} < F_{\text{table}} \), then Ho is accepted.

d. T. Tes analisis

To see whether the production cost variables (raw material costs, labor costs and factory overhead costs) have a significant effect on total revenue, the formula is used:

\[ r = \frac{\sqrt{n-2}}{t_{\text{to}}} \]

From the use of the formula above, compare the results to the table, when:

9 Suharsimi Arikunto, Research Procedures A Practice Approach, (Jakarta: Rineka Cipta, 1977), h. 121

10 Sadono Sukirno, On Cit., h. 137


12 Husaini Usman and Purnomo Sehadi Akbar, op.cit., h. 204

13 Husaini Usman and Purnomo Sehadi Akbar, op.cit., h. 204
RESULT AND DISCUSSIONS

Community Production Cost Development Model

The development of production activities can be divided into several stages.

1. Industrial Revolution Period

   The industrial revolution that started in the 18th century in England then entered the trans-Atlantic and this spirit arrived in the United States before the 1860s. At that time there was a process of substitution of power that relied on labor or humans into machine power. This process originated with the invention of the steam engine. This power is able to move ships, machines and factories.

2. Scientific Management Period (Scientific Management)

   This period was between the years 1890-1920 declared as the development of scientific management. The essence of the nature of development and the nature of processing in this period is how scientific methods are used in carrying out production activities, so that each work can be completed efficiently and effectively.

3. Mass Production Period

   The period of scientific management was replaced by a period of mass production that stemmed from Henry Ford's innovations in producing automobiles.

4. Automation and Robotization

   The next stage is the stage of automation and robotization, the twentieth century is the century of automation and robotization in producing goods and services. Examples can be seen in developed countries, one example is Japan. Japan uses robots to perform monotonous tasks such as welding and painting.

   The production process that can be enjoyed next is computerization. Some of the innovations in increasing efficiency in the business world resulting from the extraordinary substitution of capital for labor are computers.

Increased Community Income

   Basically the driving force of the economy consists of two parties, namely the private sector and the government. In the private sector it can also be divided into two parts, namely: the individual (in economics it is often also called the household world), and business (company household). After the division into private parties, the economic actors change to three parties, namely the government, individuals and Business. Below the author presents the relationship between individuals and businesses, namely:

   ![Diagram of Income Streams](Image)

   **Picture 1.1. The Circle of Income Streams (Income Circular Flow)**

   Business households (RTB) obtain production services from consumer households (RTK) or the wider community. In return, RTB provides income (in the form of rent, wages, interest, profits) to RTK after production services are processed, into goods and services. This is channeled by RTB to RTK in return, RTK

---


15 Sosarsono Wijandi, *Introduction to Entrepreneurship*, (Bandung: Sinar Baru Algesindo, 2000), h. 432
buys it with the revenue it receives.

Income and income in the bottom row of the figure shows that the flow of money flows from the business world to the community in the form of wages, salaries, interest, rent and profits. These are the forms of income that society receives. If you pay more attention to the figure above, it will be clear that the flow of income (wages, interest, rent, and profit) arises as a result of productive services flowing from the public to the business to the community (when among the community there are state officials, then business to the government – that is, where the civil servant's income comes from – is the government). All of this means that income must be obtained from productive activities.

However, if there is income that is obtained not from productive businesses, namely gifts, inventions, stolen goods and so on. All of that is not income, even if it is income. The Percentage of National Income in the form of wages and salaries, individual income consisting of doctors, lawyers, livestock business owners and small businesses. The higher the income of individuals, households and companies in a certain area, the regional income increases, the increase in income is accompanied by an increase in demand for goods and services. Increased income is also influenced by population, the higher the population, the higher the demand for goods, the higher the income of a community. The income of a region is the value of all goods and services produced by companies, both households and individuals as well as the government in a country. Different types of investments have different returns on capital. There is a high rate of return on investment and there is also a low rate of return on investment. If entrepreneurs are fully aware of the various possibilities for investing, they will give priority to investments with high returns on capital. Only after the project is implemented will they develop a project with a lower rate of return on investment.

Revenue is measured at acceptable fair value, the amount of revenue is usually determined by agreement between the company and the purchaser which is measured by the fair value of the consideration received or received by the company less the amount of trade discounts and volume rebates allowed by the company, generally in the form of cash or cash equivalents. When an inflow of cash or cash equivalents is deferred the fair value of the consideration may be less than the nominal amount of the cash received or receivable. If goods or services are exchanged for goods or services with the same nature of value, the exchange is not considered a transaction that results in income and if goods are sold or services are provided in exchange for goods and services that are not similar, the exchange is considered a transaction that results in income.

Therefore in the distribution of income associated with several issues:
1. How to regulate the distribution of income
2. Does the income distribution that is carried out have to lead to the formation of people who have the same income.
3. Who guarantees the distribution of income in society.

There are seven alternative models of asset valuation and income determination.

a. Historical cost accounting measures historical cost of goods in units of money. This accounting is often also called conventional accounting basically characterized by:
   a. The use of historical cost of goods as the nature of the elements of financial statements.
   b. The assumption that monetary units are stable

---

16 *Ibid*, h. 321


c. The principle of comparing (bringing together)
d. Realization principle

2. Replacement cost accounting measures the replacement cost of goods (i.e., the current record price) in units of money.
   a. Using cost of goods replace as the nature of the financial statement elements
   b. Assume that the monetary unit is stable
   c. Realization principle
d. Separation of operating income and ownership gains and losses
e. Separation of gains and losses of ownership and realized and unrealized.

3. Net realizable value accounting measures net realizable value (i.e., the current price in effect) in units of money.
   a. Using the net realizable value as the nature of the elements of financial statements
   b. Assume that the monetary unit is stable
   c. Abandon the principle of realization
d. Separation of operating income and ownership gains and losses

4. Cash value accounting measures cash value in units of money

5. Cost of replacement cost accounting. The general price level measures the replacement cost of goods in units of purchasing power.
   a. Using replacement cost of goods as the nature of the financial statement elements.
   b. Using common purchasing power units as units of measure
c. Realization principle
d. Separation of operating income and profits and losses of ownership which have actually been realized and which have clearly not been realized.
e. Separation of gains and losses of ownership that have actually been realized and have clearly not been realized.

6. General price level accounting measures historical cost of goods in units of purchasing power

7. Net realizable value accounting general price levels measure realizable price values in units of purchasing power
   a. Using the net realizable value as the nature of the elements of financial statements.
b. Using a general purchasing power unit as a unit of measure
c. Abandon the principles of realization
d. Separation of operating profit and actual holding gains and losses.
e. Separation of actual realized losses and gains from ownership and unrealized ownership losses and gains.

8. Cash value accounting general price level measures cash value in units of purchasing power.¹⁹

¹⁹ Ibid, h. 442
Geographically, the Nagari area of Sungai Pua, Sungai Pua Subdistrict, Agam Regency can be seen from several aspects, namely:

a. Located and spacious

Sungai Pua District is located in the Agam highlands, precisely on the slopes of Mount Merapi, which is at an altitude of 965 meters above sea level. Its territory stretches from east to west, Sungai Pua District is located 9 km to the south of the city of Bukittinggi and 87 km to the north of the city of Padang.

The area of Sungai Pua sub-district is 3,450 km$^2$. The shape of the area consists of plateaus, hills and mountains. For more details:

1) Upland to undulating : 10 %
2) Hilly to mountainous : 15 %
3) Undulating until hilly : 75%

b. Boundaries and climate

The boundaries of the Sung Pua Subdistrict are as follows:

1) To the north it is bordered by Banuhampu District
2) To the south it is bordered by Tanah Datar Regency
3) To the west it is bordered by Banuhampu District
4) To the east it is bordered by Ampek Angkek Canduang District

Climate is a natural phenomenon or weather condition for a long period of time caused by several factors including temperature, rainfall, wind, humidity and others. Climate is very influential on the behavior and activities of creatures that are in the area.

Sungai Pua District has a tropical climate with cool temperatures. The maximum temperature is 23\degree C and a minimum temperature of 20\degree C. The highest rainfall is 114 days in one year, while the average rainfall is 396 mm per year.

c. Social Conditions

The social condition of the residents of Nagari Sungai Pua, Sungai Pua District, Agam Regency can be seen from several aspects, namely:

1) Total population

Based on the data obtained from the subdistrict head office of Sungai Pua sub-district, the population in Nagari Sungai Pua can be seen in the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Nama Jaring</th>
<th>Jumlah Penduduk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tampah Koto</td>
<td>1,118</td>
</tr>
<tr>
<td>2</td>
<td>Kapalo Koto</td>
<td>2,487</td>
</tr>
<tr>
<td>3</td>
<td>Limo Soka</td>
<td>3,958</td>
</tr>
<tr>
<td>4</td>
<td>Limo Kampung</td>
<td>1,989</td>
</tr>
<tr>
<td>5</td>
<td>Galang</td>
<td>1,017</td>
</tr>
<tr>
<td><strong>Jumlah</strong></td>
<td><strong>12,659</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Central Statistics Agency for Agam Regency, 2012

2. Jobs

Based on data obtained from the Sungai Pua District Head Office, the work of the Sungai Pua community varies, this can be seen in table 1.3 below:

<table>
<thead>
<tr>
<th>No</th>
<th>jenis pekerjaan</th>
<th>Jumlah (orang)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>tukang bekerja</td>
<td>315</td>
</tr>
<tr>
<td>2</td>
<td>Petani</td>
<td>780</td>
</tr>
<tr>
<td>3</td>
<td>Konveksi</td>
<td>209</td>
</tr>
<tr>
<td>4</td>
<td>Jasa</td>
<td>541</td>
</tr>
<tr>
<td>5</td>
<td>Dogang</td>
<td>694</td>
</tr>
<tr>
<td>6</td>
<td>Burah</td>
<td>107</td>
</tr>
<tr>
<td>7</td>
<td>PNS</td>
<td>205</td>
</tr>
<tr>
<td>8</td>
<td>pandai besi</td>
<td>162</td>
</tr>
<tr>
<td>9</td>
<td>rumah tangga</td>
<td>980</td>
</tr>
</tbody>
</table>

Source: Central Bureau of Religious Statistics,
3. Livelihood

Based on data from the Sungai Pua sub-district office, it is known that the livelihoods of the Sungai Pua residents are diverse, such as farming, home industry (blacksmithing, convection and pottery).

a) Agriculture

Most of the livelihoods of Nagari Sungai Pua residents are agrarian (farming), among their agricultural products are rice, secondary crops, and vegetables which are distributed to various surrounding areas.

b) Industry

Industry is the livelihood of the people of Sungai Pua sub-district which is also the largest, including the small blacksmith industry which produces agricultural tools, household appliances and machine parts, besides that it is the home industry in the convection sector which produces apparel and also in the form of pottery, and typical Minang Kabau musical instruments such as Cenang, Talempong and Gong.

c) Trade

A small portion of the people of Sungai Pua Sub-District have a livelihood from trading, which includes the products of the blacksmith industry such as axes, knives, hoes and machetes, ready-to-wear clothes and agricultural products such as vegetables which are also produced by this Nagari Sungai Pua.\textsuperscript{201}

**Production Cost Management Model for Blacksmith Craftsmen in Sungai Pua District.**

An overview of the total production costs of blacksmith craftsmen in Sungai Pua District can be seen in Table 1.4 below.

<table>
<thead>
<tr>
<th>X1</th>
<th>x2</th>
<th>X3</th>
<th>AND</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.250.000</td>
<td>28.000.000</td>
<td>572.018,67</td>
<td>40.177.98</td>
</tr>
<tr>
<td>15.000.000</td>
<td>28.000.000</td>
<td>572.018,67</td>
<td>52.427.98</td>
</tr>
<tr>
<td>11.190.000</td>
<td>28.000.000</td>
<td>572.018,67</td>
<td>30.737.98</td>
</tr>
<tr>
<td>9.155.155</td>
<td>32.000.000</td>
<td>398.862,44</td>
<td>37.573.98</td>
</tr>
<tr>
<td>8.281.656,24</td>
<td>32.000.000</td>
<td>398.862,44</td>
<td>15.053.48</td>
</tr>
<tr>
<td>33.299.040</td>
<td>34.000.000</td>
<td>492.672,95</td>
<td>44.798.43</td>
</tr>
<tr>
<td>25.850.142,50</td>
<td>32.000.000</td>
<td>250.000</td>
<td>4.500.858</td>
</tr>
<tr>
<td>18.269.133,60</td>
<td>32.000.000</td>
<td>242.672,50</td>
<td>6.638.193</td>
</tr>
<tr>
<td>132.295.127</td>
<td>246.000.00</td>
<td>3.499.126</td>
<td>231.908.85</td>
</tr>
</tbody>
</table>

Data Source: Self-Processed Data

Based on the data collected in the field presented in Table 1.4 above, it can be seen that the cost of raw materials (X1) the lowest is Rp. 8,281,656.24 and the highest fee is Rp. 33,299,040, while for labor costs (X2) the lowest is Rp. 28,000,000 and the highest fee is Rp. 34,000,000 and the lowest factory overhead is Rp. 250,000 and the highest fee is Rp. 572,018.67. The lowest income (Y) for craftsmen is Rp. 4, 500,858 and the highest income is Rp. 52, 427,981, 33.

**Total Income of Blacksmith Craftsmen in Sungai Pua District.**

An overview of the income
earned by blacksmith craftsmen in Sungai Pua District can be seen in table 1.5 below.

**Table 1.5: Quarterly Earnings of Blacksmith Craftsmen in Rupiah**

<table>
<thead>
<tr>
<th>No</th>
<th>Year</th>
<th>Quarterly</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2019</td>
<td>January - April</td>
<td>40,177,981,33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>May - August</td>
<td>52,427,981,33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>September-December</td>
<td>30,737,981,33</td>
</tr>
<tr>
<td>2</td>
<td>2020</td>
<td>January - April</td>
<td>37,573,982,56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>May - August</td>
<td>15,053,481,36</td>
</tr>
<tr>
<td>3</td>
<td>2021</td>
<td>January - April</td>
<td>44,798,437,05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>May - August</td>
<td>4,500,857,5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>September-December</td>
<td>6,638,193,90</td>
</tr>
</tbody>
</table>

*Source: Self-Processed Data*

Based on the data collected in the field presented in table 1.5, it can be seen that the lowest income for blacksmith craftsmen is Rp. 4,500,857.5, in the May-August 2020 quarter, while the highest level of income was Rp. 52,427,981.33 in the May-August 2008 quarter.

**Effect of Production Costs on Income in Sungai Pua District.**

In conducting this data analysis, the authors use quantitative data analysis. This analysis is used to see how much influence production costs have on the income of blacksmith craftsmen in Nagari Sungai Pua, Sungai Pua District, Agam Regency. In conducting this data analysis, the authors use quantitative data analysis. This analysis is used to see how much influence production costs have on the income of blacksmith craftsmen in Sungai Pua sub-district. (See Appendix SPSS Version 14.0)

1. **Multiple Linear Regression Analysis**

   \[ \hat{Y} = a + b_1X_1 + b_2X_2 + b_3X_3 \]

   Where:
   - \( a = -7269572,395 \)
   - \( b_1 = 0, 218 \)
   - \( b_2 = 1, 208 \)
   - \( b_3 = 134, 180 \)

   So \( \hat{Y} = -7269572,395 + 0, 218X_1 + 1, 208 X_2 + 134, 180X_3 \)

   That is, if there is an additional cost of raw materials \( (X_1) \) of Rp. 1, the craftsmen's income increases by Rp. 0.218. If there is an increase in labor costs \( (X_2) \) Rp. 1, the craftsmen's income increases by Rp. 1.208 and if there is an additional factory overhead cost \( (X_3) \) of Rp. 1, the craftsmen's income increases by Rp. 134,180.

2. **Multiple Correlation Analysis**

   \[ R^2 = \frac{SS_{b/a}}{SS_y} = \frac{SS_{b/a}}{SS_y} \]

   From the results of model estimation, the R value is obtained\(^2\) of 0.874. This means that 87.4 percent of the proportion of the independent variables used can explain variations in the dependent variable in the model, while the remaining 12.6 percent is explained by other variables not used in this study. R value\(^2\) This high value shows that the estimated model resulting from this study is sufficient to show the actual situation (goodness of fit) or strong enough to be believed.

3. **Fcount Analysis**

   \[ F = \frac{R^2/K}{(1-R^2)(n-k-1)} \]

   From the estimation results in the attached SPSS results obtained \( F_{count} \) of 9.285 when compared between \( F_{count} \) and \( F_{table} \), it can be concluded that together all the independent variables of raw material costs, labor costs and factory overhead affect income, this is known because the value of \( F_{count} \) which is 9.285 greater than \( F_{subject} \) of 9.07, it can be concluded that the null hypothesis (Ho) is rejected and accepts the test hypothesis (Ha) meaning that raw material costs, labor costs and factory overhead costs have a significant influence on the income of blacksmith craftsmen in Kenagarian Sungai Pua, Agam Regency.
4. T. Tes analisis
\[
\frac{r\sqrt{n-2}}{\sqrt{1-r^2}}
\]

Nilai $T_{count}$ the raw material cost variable is 1.696, while $T_{table}$ 1.646. This means that the value of $T_{count}$ bigger than $T_{table}$, so it can be concluded that the raw material cost variable has a significant effect on the income of blacksmith craftsmen. T grade $T_{count}$ variable labor costs of 0.628, while $T_{table}$ 0.675. This means that the value of $T_{count}$ smaller than $T_{table}$, so it can be concluded that the labor variable has no significant effect on the income of blacksmith craftsmen. T grade $T_{count}$ factory overhead costs of 4.342, while $T_{table}$ 4.015. This means a $T_{count}$ bigger than $T_{table}$, so it can be concluded that the factory overhead variable has a significant effect on the income of blacksmith craftsmen.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of research conducted in Nagari Sungai Pua, Sungai Pua District, Agam Regency, the following conclusions can be put forward:

1. The effect of production costs on the income of blacksmith craftsmen is when $\hat{Y} = -72695727,395 + 0,218X_1 + 1,208X_2 + 134,180X_3$ That is, if there is an additional Raw Material Cost ($X_1$) of Rp. 1, the craftsmen's income increases by Rp. 0.218. If there is an additional Labor Cost ($X_2$) of Rp. 1, the craftsmen's income increases by Rp. 1.208 and if there is an additional Factory Overhead Cost ($X_3$) of Rp. 1, the craftsmen's income increases by Rp. 134,180.

2. From the results of the correlation calculation, the author can explain that $R^2 = 0.874$, which is 87.4%, meaning that there is a relationship or correlation between production costs and the income of blacksmith craftsmen. After testing the hypothesis with the F-count analysis formula above where the F-count is 9.285 greater than the F-table of 9.07, it can be concluded that the Null Hypothesis (Ho) is rejected and the Test Hypothesis is accepted, meaning that raw material costs, labor costs work and factory overhead costs have a significant influence on the income of blacksmith craftsmen in Kenagarian Sungai Pua, Sungai Pua District, Agam Regency.

Based on research calculations, it can be suggested several things related to increasing the income of craftsmen in the following way:

1) Optimizing the blacksmith profession by providing training facilities, seminars and guidance from experts

2) The government pays attention and can stabilize the price of raw materials to make these crafts.

The community and government synergize in maintaining and preserving local customary wealth which has now become a source of livelihood for the community.

REFERENCE


Cater Usry, 2000, Cost accounting, Yogyakarta: Salemba Empat

Delly, 1990, Build Business Craftsmen Small From Rural, Jakarta: LP3ES

Erwan Dukat, Accounting Theory (Accounting Theory), Yogyakarta: AK Group


M. Manulang, 1985, Introduction to National Productivity. Jakarta: Media Discourse Partners


Mega Surin, Small and medium enterprises, Jakarta: YKPTN

Mulyadi, 2000, Accountancy Cost, Jakarta: Gadjah Mada University

Mulyadi, 2001, System Accountancy, Jakarta: Salemba Empat