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# Analysis of Labor Productivity at the Pottery Craft Industry Center in Masbagik Timur Village, Masbagik District, East Lombok Regency

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**ABSTRACT**

This study is entitled "Analysis of Labor Productivity in the Pottery Craft Industry Center in Masbagik Timur Village, Masbagik District, East Lombok Regency". The type of research used is descriptive research. The area and location of the research were conducted in Masbagik Timur Village. The types of data used are primary data and secondary data. Data collection techniques used are observation, interviews and literature studies. Determination of respondent samples using simple random sampling techniques. The analysis tool used to determine the amount of labor productivity is the productivity formula and productivity index. The results of the analysis (research) show that the value of labor productivity is greater than the value of the productivity index, which can be seen as follows: in the plate and ashtray business unit, the productivity index is 2.94 units/hour and the productivity is 3.75 units/hour. The business unit of jars, jugs, pots, and barrels, the productivity index is 0.47 units/hour and the productivity is 0.62 units/hour. The business unit of rice containers, kettles, and fruit containers has a productivity index of 0.94 units/hour and the productivity is 1.25 units/hour. The business unit of mortars and piggy banks has a productivity index of 1.92 units/hour and the productivity is 2.5 units/hour. The business unit of stoves has a productivity index of 1.44 units/hour and the productivity is 1.87 units/hour. The business unit of pestles has a productivity index of 3.84 units/hour and the productivity is 5 units/hour. So, it can be seen that labor productivity in the pottery industry is large, because the productivity value is greater than the productivity index value.



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## 1. INTRODUCTION

Developing small industries is at least an effective way to expand employment opportunities and support economic growth in Indonesia both in rural and urban areas. Industry is one example of an activity or interaction between natural resources and human resources. The existence of industry in an area can be influenced by the existence of natural resources and human resources in the area. Natural resources are as providers of

raw materials and complementary materials (operational input). Human resources play a role in the operational process of the industry, without adequate human resources, an industry will find it difficult to develop. The role of the workforce in producing something from the work done is called labor productivity.

[1] stated that work productivity is defined as concrete results (products) produced by individuals or groups, during a certain time unit in a work process. In East Lombok Regency, there are so many small industries with varying levels of productivity. Specifically, small pottery craft industries can only be found in East Masbagik Village. East Masbagik Village consists of several hamlets or areas, all of which have businesses in the pottery craft industry. For more details regarding data on the number of pottery craft entrepreneurs in each hamlet in East Masbagik Village as well as in East Lombok Regency, it can be seen in the following table:

Table 1. Number of Business Units and Number of Workers in the Pottery Craft Industry in East Masbagik Village, Masbagik District until 2023

| No | Hamlet Name/ Environment | Number of Pottery Business Units (units) | Number of Workers (Person) |
|---|---|---|---|
| 1 | The Snatch | 342 | 997 |
| 2 | The narrator | 34 | 129 |
| 3 | Tuntel | 37 | 100 |
| 4 | Ladder | 24 | 85 |
| 5 | Back | 5 | 11 |
| 6 | Flat Garden | 42 | 95 |
| 7 | Others (Spices Hut, Luah Hut, Daya Garden & Lendang) | 11 | 40 |
| Amount | | 495 | 1,457 |

*Source: East Lombok Industry Service*

Table 1 shows that from several neighborhoods/hamlets in East Masbagik Village, almost all of them are engaged in the pottery craft industry. Of all the hamlets or neighborhoods, the ones with the most pottery craft industry businesses are Penakak hamlet, Kebon Rata hamlet, Tuntel hamlet, Penyaong hamlet, Tanggak hamlet, Pungkang hamlet and several other areas with a total of 495 pottery business units with a workforce of 1,457 people.

The people of Masbagik Timur Village are small communities with a medium scale, because the majority of its residents are pottery craftsmen, Masbagik Timur Village has the status of a central village for the pottery craft industry in East Lombok. This pottery craft business has long been pursued by the people of Masbagik Timur Village so that pottery crafts are the main livelihood for the community, so it is very important in improving the community's economy in the pottery craft industry by the people in Masbagik Timur Village, as one solution in handling their daily needs.

The development of the pottery craft industry in East Masbagik can be said to remain stable even though there have been several events that almost caused the craftsmen to go bankrupt, based on the official website of East Masbagik Village, these events are, the Bali bombing in October 2002 which reduced sales of the pottery craft industry. In addition, in 2020, the presence of Covid-19 had a significant impact on pottery sales. In today's era, pottery products must compete with modern products that are much more attractive and the quality can be said to be almost the same as pottery products. Therefore, innovation, creativity and greater productivity are needed which must be developed by pottery craftsmen in East Masbagik Village. If the craftsmen cannot increase their innovation and productivity, it is certain that pottery crafts in East Masbagik Village will only be a name. So based on the

previous explanation, the researcher wants to conduct a study entitled "Analysis of Labor Productivity at the Pottery Craft Center in East Masbagik Village, Masbagik District, East Lombok Regency.

## 2. LITERATURE REVIEW

### *2.1 Small Industry*

Small and Medium Industries (SMEs) refer to the economic sector consisting of businesses that operate on a small scale and are managed by individuals or small groups. SMEs are one of the industries that have experienced quite good development and produce various superior products [2]. This Small Industry often involves the production of goods or services that meet local or regional needs. Small industry communities have an important role in a country's economy because they contribute to economic development, job creation, and income equality [3].

According to the Regulation of the Minister of Industry, PER-64/M-IND/PER/7/2016 concerning the Number of Workers and Investment Value for Industrial Business Classification, Article 1 states that industry is all forms of economic activities that process raw materials and/or utilize industrial resources, so as to produce goods that have added value or higher benefits, including industrial services, while Article 3 paragraph 1 states that small industry is an industry that employs a maximum of 19 (nineteen) workers and has an investment value of less than IDR 1,000,000,000.00 (one billion rupiah) excluding land and buildings for business premises, and paragraph 2 states that land and buildings for business premises are land and buildings for business premises as referred to in paragraph (1) are land and buildings whose location is one with the location of the business owner's residence. Meanwhile, Article 4 states that Medium Industry is an industry that meets the following provisions: a). employs a maximum of 19 (nineteen) workers and has an investment value of at least IDR 1,000,000,000.00 (one billion rupiah); or b). employs at least 20 (twenty) workers and has a maximum investment value of IDR 15,000,000,000.00 (fifteen billion rupiah).

### *2.2 Labor*

The workforce is the population of working age who are ready to do work, including those who are already working, those who are looking for work, those who are in school, and those who are taking care of the household. According to Simanjuntak in Sabihi et al.. (2021) the workforce is the population aged 10 years and over who have or are working, looking for work, and/or who are doing other activities such as going to school and taking care of the household. What is meant by going to school and taking care of the household are those who, although not working, are physically able and able to work and generate income [4].

The workforce is anyone who is able to do work to produce goods or services to meet the needs of the community, and the population aged 10 years and over who already know and

understand or have worked, who are looking for work, or are doing economic activities. According to [3], the workforce is grouped into 3 types, namely:

1. Educated workforce, namely workers who have expertise and skills in certain fields obtained through school or formal and informal education. Examples include: doctors, teachers, police, and others.
2. Skilled workers, namely workers who have expertise in a particular field obtained through work experience and practices so that they can master the job. Examples include: tailors, mechanics, carpenters, and others.
3. Uneducated and untrained labor, namely unskilled labor who work without education or skills so that they only rely on their own strength. Examples include: waiters, construction workers, maids, and others.

### *2.3 Pottery*

Pottery is a part of ceramics that is seen based on the quality level of the material. However, some people interpret pottery and ceramics separately. There is an opinion that pottery is not included in ceramics, because ceramic objects are breakable objects with smooth and shiny surfaces such as porcelain in the form of flower vases, jars, floor tiles and others. While pottery is clay goods in the form of pots, pots, water containers, etc.

According to The Concise Colombia Encyclopedia, Copyright 1995, the word 'ceramic' comes from the Greek (Greek) 'keramikos' refers to the meaning of pottery; 'keramos' refers to the meaning of clay. 'Keramikos' is made of non-metallic minerals, namely clay which is formed, then permanently hardened after going through a firing process at high temperatures. The age of the oldest ceramics is known from the Paleolithic era 27,000 years ago. Meanwhile, according to Malcolm G. McLaren in the Encyclopedia Americana 1996, ceramics is a term that has been applied since the beginning to works made of natural clay and has been heated at high temperatures.

### *2.4 Production*

Production is something made by a company in a certain period of time in the form of goods or services, which are counted as added value for the company. The form of production results with the category of goods and services is very dependent on the category of business activities owned by the company concerned [5]. The production department in a business organization plays an important role in efforts to influence an organization. The production department is often seen as one of the management functions that determines product creation and also influences the increase and decrease in sales. This means that the products produced must always follow the desired market standards, not be produced solely on the basis of pursuing targets. Because with

stable continuity, it is expected to be able to realize stable profit gains.

According to Sofyan Assauri, "production is all activities in creating and adding utility to a good or service". For which activities are needed production factors in economics in the form of land, labor, and skills (organization, managerial, and skills). In production activities depend on the availability of production factors. The following is an explanation of production factors:

1. Natural Production Factors, are all the wealth in the universe used in the production process. Natural production factors are called primary or original production factors. Natural production factors consist of land, water, air, sunlight, and mining goods.
2. Labor Production Factor, is a human production factor that can directly or indirectly carry out production activities. Labor production factor as an original production factor. Although now many production process activities are played by machines, the presence of humans is mandatory.
3. Capital Production Factors are supporting factors that accelerate and increase production capacity. Production factors can consist of machines, means of transportation, buildings and transportation equipment.
4. Production Factor Expertise, is the expertise or skills of individuals in coordinating and managing production factors to produce goods and services.

### *2.5 Working Hours*

According to (Big Indonesian Dictionary, 2015) working time is the time reserved for equipment used or the working time of employees or workers. The working hours of private employees are regulated in Law Article 13 of 2003 concerning employment, especially articles 77-85. Law Number 77 (1) 13 of 2003 requires every employer to comply with working hours. These working hour regulations are regulated in two systems, namely:

1. 7 working hours in 1 day or 40 working hours in 1 week for 6 working days in 1 week or.
2. 8 working hours in 1 day or 40 working hours in 1 week from 5 working days in 1 week.

Both working time systems also have a working time limit of 40 hours per week. If the working time exceeds the specified working hours, overtime is considered normal working hours where workers are entitled to overtime pay (Law of the Republic of Indonesia Number 13 of 2003).

### *2.6 Labor Productivity*

Productivity is one of the measuring tools to determine the size of the efficiency of the use of Natural Resources (SDA) in the

process of increasing productivity, because considering other resources can be controlled by labor. Increased productivity also results in a direct increase in the standard of living that is under the same distribution conditions and the same distribution and productivity gains that are in accordance with labor input.

According to [6], "Work productivity is the ability of a person or group to produce an output in the form of goods or services that qualitatively or quantitatively increases over time". Continued by Simanjuntak (in Darmadi, 2012: 253), "work productivity is a behavior that always views and reflects that today must be better than the previous day, meaning that someone must always improve their work system in order to produce products of better quality than before". While in a narrow sense, the definition of work and operational productivity is a comparison between the results achieved as a whole".

## 3. METHODS

### 3.1 Research Design

In this study, the author took the title of labor productivity analysis in the pottery industry center in Masbagik Timur Village, Masbagik District, East Lombok Regency. The type of research used in this study is descriptive. The types of data used are primary and secondary data. Primary data were obtained from direct interviews with pottery craftsmen in Masbagik Timur Village. Secondary data were obtained from agencies related to this study, such as the Industry Service of East Lombok Regency.

### 3.2 Sample

To determine the number of samples in this study, the Slovin and Husain Umar formula was used as follows:

$$n = \frac{N}{1 + Ne^2}$$

Information:

n = Minimum Sample Size
N = Total Population Number
$e^2$ = Percentage Allowance for Accuracy due to sampling error (15%)

$$\text{n} = \frac{1457}{1+1457(15\%)^2} = 45{,}41$$

In this study, the researcher will take 15% sample flexibility from the population in East Masbagik Village, so that the number of samples in this study is 45 people.

### 3.3 Operational Definition of Variables

In the research, the researcher used a brief operational definition of the variables as follows:

1. Labor Productivity is the amount of production produced by labor divided by the number of hours worked by the labor in units of working hours per unit.
2. The number of working hours is the amount of time required by the workforce to complete or produce a product in working hours.
3. The amount of production is the amount of production results produced by the workforce expressed in units (seeds).

### 3.4 Analysis Method

In this study, the data analysis technique used to explain or provide an explanation related to the level of labor

productivity in the pottery craft center in East Masbagik Village, namely:

1. Labor Productivity

$$\text{Produktivitas TK} = \frac{\text{Jumlah output yang dihasilkan}}{\text{jam kerja}}$$

2. Productivity Index

To find out the size of productivity, it must be compared with the productivity index itself. Meanwhile, to find out the productivity index, it can be calculated by:

1. Calculating Selected Operating Time (SOT)

$$SOT = \frac{Waktu\ kerja\ per\ hari}{n}$$

n = Number of output samples produced

2. Calculating Normal Time (NT)

$$\text{NT} = Ws\ X\ Rf$$

Where:
Ws = Cycle time (time required to complete one unit of product)
Rf = Rating factor

In this study, the RF is assumed to be 110%.

3. Calculating Time Standards

ST= NT (1+ time reserve)

Time reserve is assumed to be 20% based on work observations and experience.

4. Calculating the Labor Productivity Index

$$Indeks\ Produktivitas\ TK = \frac{jam\ kerja\ selektif}{waktu\ standar}$$

Provision:
a. If the productivity value is greater than the productivity index value, then productivity is high or large.
b. If the productivity value is lower than the productivity index value, then labor productivity is low or small.

## 4. RESULTS AND DISCUSSION

### 4.1 Respondent Characteristics

1. Respondent Education

The educational background of respondents varies from those who have not graduated from elementary school (TTSD) to those who have graduated from high school (TSMA). The average level of education of the respondents' workforce in the pottery craft industry in Masbagik Timur Village, Masbagik District, can be seen in the following table:

Table 2. Percentage and Number of Respondents in the Pottery Craft Industry in East Masbagik Village Based on Education Level in 2024

| Level of education | Respondent Workforce | |
|---|---|---|
| | Number of people) | Percentage (%) |
| TTSD | 4 | 8.89% |
| TSD | 33 | 73.33% |
| TSMP | 6 | 13.33% |
| TSMA | 2 | 4.44% |
| amount | 45 | 100% |

*Source: Attachment 1*

From table 4.1, it is known that the number of respondent workers who have not graduated from elementary school (TTSD) is 4 workers or 8.89%, those who have graduated from elementary school are 33 people or 73.33%, those who have graduated from

junior high school are 6 people or 13.33%, and those who have graduated from high school/vocational school are 2 people or 4.44%.

2. Respondent Age

The age of the workforce used as respondents is one of the factors that influences work activities, especially those related to the pottery industry. The age of the craftsmen used as respondents is in the productive age (15 - 64 years). For more details regarding the age of the pottery craftsmen respondents in East Masbagik Village, see the following table:

Table 3. Percentage and Number of Respondents in the Pottery Craft Industry in East Masbagik Village Based on Age Level in 2024

| Age Group (year) | Respondent Workforce | |
|---|---|---|
| | Number of people) | Percentage (%) |
| <30 | 2 | 4.44% |
| 31 – 35 | 7 | 15.56% |
| 36 – 40 | 3 | 6.67% |
| 41 - 45 | 10 | 22.22% |
| 46 - 50 | 8 | 17.78% |
| 51 - 55 | 9 | 20.00% |
| 56 - 60 | 4 | 8.89% |
| > 60 | 2 | 4.44% |
| Amount | 45 | 100% |

*Source: Attachment 1*

From Table 4.2 shows that the age level of pottery craftsmen respondents who range from less than 30 years is 2 people or 4.44%, then followed by the age range of 31-35 years as many as 7 people or 15.56%, from the age of 36-40 years as many as 3 workers or 6.67%, from 41-45 years as many as 10 people or 22.22%, from the age of 46-50 years as many as 8 people or 17.78%, from the age of 51-55 years as many as 9 people or 20.22%, from the age of 56-60 years as many as 4 people or 8.89%, finally over 60 years as many as 2 people or 4.44%. This means that the average age of the workforce of pottery craftsmen respondents in East Masbagik Village is included in the productive age, which is between 15-64 years.

3. Respondents' Work Experience

Respondents' work experience is one of the factors that influences the level of labor productivity in the pottery industry center. Craftsmen who have longer work experience tend to have a higher level of productivity than those who have less work experience. For more details on the work experience of pottery craftsmen in East Masbagik Village, see the following table:

Table 4. Percentage and Number of Respondents in the Pottery Craft Industry in East Masbagik Village Based on Work Experience in 2024

| No | Work experience (years) | Number of people) | Percentage (%) |
|---|---|---|---|
| 1. | 15 - 30 | 23 | 51.11% |
| 2. | 31 - 45 | 19 | 42.22% |
| 3. | 46 - 55 | 3 | 6.67% |
| amount | | 45 | 100% |

*Source: Appendix 1*

Table 4.3 shows that the work experience of pottery craftsmen respondents ranges from 15 to 30 years, amounting to 23 people or 51.11%, followed by those ranging from 31 to 45 years, amounting to 19 people or

42.22%, and finally those ranging from 46 to 55 years, amounting to 3 people or 6.67%.

### 4.2 Data analysis

Based on the calculation results regarding the level of labor productivity in the pottery craft industry center in East Masbagik Village in November 2024, it can be seen in table 4.5.

Table 5. results of calculations regarding the level of labor productivity in the pottery craft industry center in East Masbagik Village in November 2024

| No | Type of Output produced | Average ability of kindergarten/day | Productivity Index | Labor Productivity |
|---|---|---|---|---|
| 1. | Plate | 30 units/kindergarten/day | 2.94 units/hour | 3.75 units/hour |
| 2. | Jar | 5 units/kindergarten/day | 0.47 units/hour | 0.62 units/hour |
| 3. | Pot | 5 units/kindergarten/day | 0.47 units/hour | 0.62 units/hour |
| 4. | Ashtray | 30 units/kindergarten/day | 2.94 units/hour | 3.72 units/hour |
| 5. | Jug | 5 units/kindergarten/day | 0.47 units/hour | 0.62 units/hour |
| 6. | Rice bowl | 10 units/kindergarten/day | 0.94 units/hour | 1.25 units/hour |
| 7. | Furnace | 15 units/kindergarten/day | 1.44 units/hour | 1.87 units/hour |
| 8. | Jar | 5 units/kindergarten/day | 0.47 units/hour | 0.62 units/hour |
| 9. | Grinding | 40 units/kindergarten/day | 3.84 units/hour | 5 units/hour |
| 10. | Mortar and pestle | 20 units/kindergarten/day | 1.92 units/hour | 2.5 units/hour |
| 11 | Kettle | 10 units/kindergarten/day | 0.94 units/hour | 1.25 units/hour |
| 12. | Fruit Place | 10 units/kindergarten/day | 0.94 units/hour | 1.25 units/hour |
| 13. | Piggy bank | 20 units/kindergarten/day | 1.92 units/hour | 2.5 units/hour |

*Source: Processed Data*

Table 4.4 shows that from 13 samples of production units studied, the productivity value is higher than the value of the labor productivity index, starting from the plate production unit with an average ability of a worker of 30 units/day, a productivity index of 2.94 units/hour and labor productivity of 3.75 units/hour, the plate jar unit with an average ability of a worker of 5 units/day, a productivity index of 0.47 units/hour and labor productivity of 0.62 units/hour, the pot production unit with an average ability of a worker of 5 units/day, a productivity index of 0.47 units/hour and labor productivity of 0.62 units/hour, the ashtray production unit with an average ability of a worker of 30 units/day, a productivity index of 2.94 units/hour and labor productivity of 3.75 units/hour, the jug production unit with an average ability of a worker of 30 units/day, a productivity index of 0.47 units/hour and labor productivity of 0.62 units/hour, the production unit of Tempat Nasi with an average capacity of one worker of 10 units/day, a productivity index of 0.94 units/hour and labor productivity of 1.25 units/hour.

Then the furnace production unit with an average capacity of one worker of 15 units/day, a productivity index of 1.44 units/hour and a labor productivity of 1.87 units/hour, a barrel production unit with an average capacity of one worker of 5 units/day, a productivity index of 0.47 units/hour and a labor productivity of 0.62 units/hour, a pestle production unit with an average capacity of one worker of 40 units/day, a productivity index of 3.84 units/hour and a labor productivity of 5 units/hour, a mortar production unit with an average capacity of one worker of 20 units/day, a productivity index of 1.92 units/hour and a labor productivity of 2.5 units/hour, a kettle production unit with an average capacity of one worker of 10 units/day, a productivity index of 0.94 units/hour and a labor productivity of 1.25 units/hour. kettle production unit with an average labor capacity of 10 units/day, a productivity index of 0.94 units/hour and labor productivity of

1.25 units/hour. Fruit container production unit with an average labor capacity of 10 units/day, a productivity index of 0.94 units/hour and labor productivity of 1.25 units/hour. and finally piggy bank production unit with an average labor capacity of 20 units/day, a productivity index of 1.92 units/hour and labor productivity of 2.5 units/hour.

The greater value of labor productivity than the value of the labor productivity index indicates that the level of labor productivity in the pottery craft industry center in East Masbagik Village is large or high. This large productivity is due to the ability to increase the workforce so that it can increase production results and maximize time utilization by the workforce.

## 5. CONCLUSION

Based on the results of research and discussion of labor productivity in the pottery craft industry center in Masbagik Timur Village, Masbagik District, East Lombok Regency, the following conclusions can be drawn:

1. The number of workers in the pottery craft industry center in East Masbagik Village until the end of 2023 is 1,457 workers from 495 business units.
2. From the calculation results, the production unit of pottery types of plates and ashtrays has a productivity index value of 2.94 units/hour and a productivity value of 3.75 units/hour, in the production unit of jars, pots, jugs and barrels has a productivity index value of 0.47 units/hour and a productivity value of 0.62 units/hour, in the production unit of rice containers, fruit containers and kettles has a productivity index value of 0.94 units/hour and a productivity value of 1.25 units/hour, in the mortar and piggy bank unit has a productivity index value of 1.92 units/hour and a productivity value of 2.5 units/hour, in the furnace production unit has a productivity index value of 1.44 units/hour and a productivity value of 1.87 units/hour, and the pestle production unit has a productivity index value of 3.84 units/hour and a productivity value of 5 units/hour.
3. Based on the results of the calculation of labor productivity, it can be seen that labor productivity in the pottery craft industry center in East Masbagik Village is already large or high, this is because the productivity value is greater than the productivity index value seen from the production units used as samples in this study.

## REFERENCES

[1] S. Tjutju Yuniarsih, "Manajemen Sumber Daya Manusia: Teori, Aplikasi dan Isu Penelitian," 2016.
[2] I. Mu'ammal and U. Yuliati, "PEMBERDAYAAN INDUSTRI KECIL MENENGAH (IKM) MELALUI PELATIHAN PEMASARAN ONLINE," *J. Pengabdi. Mandiri*, vol. 1, no. 2, pp. 103–110, 2022.
[3] Y. Rahayu, "Pengaruh upah dan tingkat pendidikan terhadap penyerapan tenaga kerja di Provinsi Jambi tahun 2010-2019," *J. Dev.*, vol. 8, no. 2, pp. 114–128, 2020.
[4] D. M. Sabihi, A. G. Kumenaung, and A. O. Niode, "Pengaruh Upah Minimum Provinsi, Investasi Dan Pertumbuhan Ekonomi Terhadap Penyerapan Tenaga Kerja Di Kota Manado," *J. Berk. Ilm. Efisiensi*, vol. 21, no. 1, 2021.
[5] S. F. Slater and J. C. Narver, "Does competitive environment moderate the market orientation-performance relationship?," *J. Mark.*, vol. 58, no. 1, pp. 46–55, 1994.
[6] E. Mahawati *et al.*, "Analisis Beban Kerja dan produktivitas kerja." Yayasan Kita Menulis, 2021.