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## Determinants of Labor Productivity in the Artificial Eyelashes Industry

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# Article

## Information

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#### **Abstract**

This research aims to analyze the labor productivity in the artificial eyelash industry at PT. Royal Korindah in Purbalingga Regency based on the factors that affect. The variables used are labor productivity, education, wages, age, and work experience. The research method used in this research is Multiple Linear Regression Analysis using Eviews9 data processing program. This research used primary data and secondary data. Primary data obtained by the method of interviewing a sample of 100 people labor in the production division at PT. Royal Korindah. Secondary data obtained in the form of publications from various sources. The results showed that education, wages, age, and work experience simultaneously had a positive and significant effect. The factors of education, wages and age have a positive and partially significant effect on labor productivity at PT. Royal Korindah in Purbalingga Regency. In partially work experience does not have a significant effect on labor productivity at PT. Royal Korindah in Purbalingga Regency.

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### **INTRODUCTION**

Economic development is activities carried out to develop the economy and the standard of living of the community. According to Todaro and Smith (2003), there are several important components of economic development that are not only problematic with economic growth and poverty alleviation, namely the improvement of social structures, institutional systems, changes in attitudes and behavior of the community. A development is very much influenced by the population and quality it has. A high quality population will encourage economic growth, while a low quality population will inhibit development.

Provision of employment is one of the steps that can be taken to help increase the

standard of living of the community so as to encourage an increase in economic growth. One of the keys to success in achieving economic growth is the optimal use of human resources. In this case, the human resource in question is labor which is a resource that has potential in terms of the production of goods and services.

Economic growth is based on total productivity that is balanced between growth in capital investment and growth in human capital. In the economic sector, there are three biggest contributing sectors to PDRB of Purbalingga Regency, namely the manufacturing industry sector; agriculture, forestry and fisheries sectors; as well as the wholesale and retail trade, car and motorcycle repair sectors.

Table 1. ADHK GRDP by Business Field of Purbalingga Regency (Percent) 2014 – 2019.

Sectors		Year				
		2015	2016	2017	2018	2019
Agriculture, Forestry and Fisheries	29.45	29.27	28.56	27.50	27.25	26.22
Mining and excavation	4.80	5.04	4.85	4.71	4.62	4.54
Manufactures Industry	25.60	25.85	26.55	26.78	26.81	27.24
Procurement of Electricity and Gas	0.05	0.05	0.05	0.05	0.05	0.05
Water Supply, Waste Management, Waste and	0.11	0.11	0.10	0.10	0.10	0.10
Recycling						
Construction	5072	5.72	5.74	5.99	6.13	6.24
Wholesale and Retail Trade, Car and Motorcycle	12.70	12.40	12.37	12.55	12.58	12.74
Repair						
Transportation and Warehousing	3.06	3.19	3.13	3.14	3.08	3.19
Provision of Accommodation and Food and Drink	2.24	2.27	2.27	2.27	2.30	2.39
Information and Communication	1.58	1.52	1.53	1.70	1.78	1.87
Financial Services and Insurance	2.17	2.19	2.25	2.29	2.28	2.23
Real Estate	1.04	1.05	1.05	1.06	1.07	1.06
Company Services	0.16	0.16	0.17	0.18	0.19	0.20
Mandatory Government Administration, Defense	2.87	2.84	2.83	2.77	2.68	2.63
and Social Security						
Education Services	5.60	5,52	5.65	5.89	6.01	6.18
Health Services and Social Activities	1.02	1.02	1.04	1.08	1.10	1.12
Other services	1.84	1.77	1.85	1.92	1.96	2.01
Total	100	100	100	100	100	100

Source: Central Bureau of Statistics of Purbalingga Regency (BPS), 2020

Table 1 showing the manufactures industry contributed 27.24% to the GRDP of Purbalingga Regency and was the largest contributor beating the agricultural sector which contributed 26.22% in 2019. This is due to the

industrial growing fastly and shifting the agricultural sector.

The industrial sector is one sector that can absorb labor and can bring the other sectors into an economic progress. According to Dumairy

(1996), industrial products always have a high or more profitable term of trade and create greater added value compared to products from other sectors. Manufactures industry is an economic activity that carries out activities to convert raw materials into finished or semi-finished goods.

The high contribution of the industrial sector makes high hopes to make it a leading sector for other sectors and is able to create jobs so as to help decreasing unemployment and icreasing economic growth in Purbalingga Regency. The manufactures industry in Purbalingga Regency is dominated by the artificial hair processing industry which is produced into eyelashes and wigs.

**Table 2**. Composition of Large Industries in Purbalingga Regency.

Type of Industry	Percentage	
Hair Processing Industry	50%	
Wood industry	25%	
Food Industry (Noodles and Vermicelli)	9.37%	
Snack Food Industry (Candy and Cigarettes)	6.25%	
Service Industry	3.12%	
Ceramic Industry	3.12%	
Others	3.14%	

Source: Lestari (2010)

Based on Table 2, of all major industries in Purbalingga District, 50% are hair processing industries (Lestari, 2010). This can be seen from the number of companies and plasma manufacturing of wigs that are scattered in Purbalingga Regency.

Hair processing company that located in Purbalingga Regency majority is a foreign investment company (PMA). Some of these companies come from big countries such as Korea, United States, Japan, Canada and Europe.

The existence of the artificial hair processing industry in Purbalingga Regency is very helpful in improving the economic situation of the Purbalingga Regency community. Because, with the existence of the processing industry it is able to open jobs and can absorb large numbers of workers so that it can help accelerate the pace of the economy in

Purbalingga Regency. The artificial hair processing industry is a labor-intensive industry that requires more human labor than machines to operate. The existence of this artificial hair processing industry is able to open jobs and can absorb a large number of workers.

**Table 3.** Number of Workers and List of Hair Processing Companies in Purbalingga Regency (People).

The

	The	
Company Nama	Number	
Company Name	of	
	Workers	
Best Lady	78	
Bintang Mas Triyasa	1,006	
Boyang Industrial	7,318	
Cipta Kreasi Megah	147	
Dasindo	19	
Elise Eye Lash	93	
Fair Lady	22	
Midas Indonesia	1,051	
Milan Indonesia	989	
Mitra Jaya Mandiri	405	
Hanmi Hair Int	886	
Hasta Pusaka Sentosa	592	
Hyup Sung	1,432	
Indokores Sahabat	3,246	
International Eyelash	83	
Interwork Indonesia	727	
Kesan Baru Sejahtera	180	
Royal Korindah	3,881	
Sinar Cendana Abadi	63	
Sinhan Creatindo	355	
SUN Starindo Wirahusada	237	
Sung Chang Cabang Bobotsari	544	
Sung Chang Indonesia	2,315	
Sung Shim Int	2,133	
Tigaputra Abadi Perkasa	612	
Morisse	30	
Wonjin	184	
Yuro Mustika	758	
Mahkota Tri Angjaya	955	
Home Industry	184	
Total	30,525	
Di T Vi-	TZ 1 4	

Source: Dinas Tenaga Kerja Kabupaten Purbalingga, 2020.

The data in Table 3 shows that at the beginning of 2020 there were around 30,525 residents of Purbalingga Regency working in the fake hair processing industry, both large companies and other fake hair industry plasma. PT. Royal Korindah is one of the companies that absorbs the largest number of workers in the manufacturing sector of fake hair into artificial eyelashes, amounting to 3,881 workers. Compared other artificial to eyelashes manufacturers, PT. Royal Korindah is the largest artificial eyelashes producer in Purbalingga Regency which is capable of producing an average of 30 million pairs of eyelashes for a year. Its products have become goods that are marketed internationally, such as Europe, South Korea, Japan and Hong Kong. To achieve the target to meet market demand both domestically and abroad.

The development of the manufacturing sector is faster than that of other economic sectors and is able to provide productive employment opportunities. The productivity of workers in a company must be maximized to support the welfare of households and companies so that they can have a positive impact on national economic development.

Labor productivity is one measure to measure labor performance in producing output. The quality of the labor can be seen through the level of education it has. The education that a person has will affect his work productivity. Education is one of the efforts to invest in resources or investment human capital. One of the goals of education is to educate the nation's life and to fulfill ready-to-use human resources.

Education is needed by the community as a capital to compete in the world of work. The tendency for an increasing level of education will result in an increase in educated unemployment rather than an increase in the labor whose productivity is in accordance with the needs of the job field (Sutomo, et al, 1999). The hope is that the higher a person's education level, the higher that person's productivity. Things that need to be considered and must be avoided is the emergence of educated unemployment. With educated unemployment, it means that there is a mismatch between the available jobs and those needed. The increasing number of educated

unemployed (skilled), it means that the use of human capital investment has not been implemented properly. Based on research conducted by Nihayah (2010).

In increasing labor productivity, it is necessary to appreciate and appreciate the existence and achievements of the labor of the company. One way to reward labor is through wages. The purpose of a person doing work is expecting a reward in the form of money or wages. Wage is a right that must be received by workers as compensation from the employer for the work issued by the worker who is determined and paid according to the work agreement between the two parties. The hope is that the level of wages earned by workers can increase labor productivity. The role of wages in the world of work is very important, If the wages received are in accordance with the services or effort that provided by the employees, the employees will continue to work and be more active so that their productivity increases. The higher productivity of a labor, the wage will be in accordance with the labor that has been given. The wage system is usually adjusted to a set regional wage rate.

Another thing that is no less important in increasing one's productivity at work is age. The age of the labor is sufficient to determine the success of the labor in doing a job both physically and non-physically. Jobs that rely on physicality will require a younger labor, but it does not rule out that older workers can do it depending on the type of work.

The productivity of a labor can also be affected by work experience. A worker who has a high tenure will better understand and be more competent in the production process. When a labor has a job that is in accordance with their work experience and expertise, the worker can maximize his knowledge and skills so as to increase his productivity input (Amron, 2009).

The productivity of labor and the company becomes a measure of the quality of a company. Given the importance of labor productivity for the continuity of the company, the problem to be examined in this research is the level of labor productivity at PT. Royal Korindah which deals with labor conditions in real life. These factors also determine whether education.

wages, age and work experience are factors that affect labor productivity at PT. Royal Korindah and in order to increase labor productivity at PT. Royal Korindah in Purbalingga Regency.

## **RESEARCH METHODS**

The data used in this research are primary data and secondary data. Primary data were obtained through research respondents using questionnaires and direct interviews. To determine the respondents to be used in the research, it is necessary to determine the number of samples needed first. The sample to be used is calculated using a formula with the Slovin approach:

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

Where n is sample size that stands for the number of samples used in this researh. N is population size, and E is critical value (10%).

Based on information and data from the company, the total population of PT. Royal Korindah in 2020 amount to 3,881 people. After the population is calculated using the Slovin formula, the results of the calculation show the number of samples (n) from the total population is 97.4880 and rounded to 100. So, the number of samples used in this research was 100 respondents.

Secondary data used is a literature research of various relevant literature and publication data. The dependent variable of this research is the labor productivity of PT. Royal Korindah. And the independent variables used are education, wages, age and work experience.

This research uses a regression analysis method with a quantitative approach. The regression analysis method with a quantitative approach in this research is multiple linear regression analysis using the least squares method or Ordinary Least Square (OLS) to determine the effect of independent variables on the dependent variable (Gujarati, 2007).

Based on previous research, the formulation of the model for this research is as follows:

$$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \mu \dots (2)$$

Where Y is labor productivity, X1 is education of labor, X2 is labor wages, X3 is age of labor, X4 is labor work experiences. On that formula,  $\beta0$  is constant,  $\beta1$  is regression coefficient for education,  $\beta2$  for wages,  $\beta3$  for age,  $\beta4$  for work experiences, and  $\mu$  is error term.

The test method on OLS uses the classic assumption test which includes normality test, heteroscedasticity test, and multicollinearity test. In addition, a statistical test was carried out which included the t test and the f test to determine the effect of the independent variable on the dependent variable partially and simultaneously.

#### RESULTS AND DISCUSSION

PT. Royal Korindah is one of the largest artificial hair processing companies in Purbalingga Regency. This company focuses on processing and supplying ready-to-use artificial eyelashes for domestic and overseas.

This company has the largest number of workers than any other artificial eyelash producer in Purbalingga Regency. With a large number of workers reaching 2,533 people, PT. Royal Korindah is able to produce around 30 million pairs of artificial eyelashes every year that are ready for sale.

One of the important things that must be considered in the production of artificial eyelashes is the quality of the product. Which in this case the company must have a workforce with quality resources that are qualified so that they are able to meet the market demand for artificial eyelashes from PT. Royal Korindah which every year has increased.

A productive workforce will produce maximum output, so that the company will reach its production target and be able to fullfill market demand for its products. Labor productivity greatly determines the condition of the company.

The differences in labor characteristics can affect the different level of productivity of each workforce. To find out the level of productivity of the workforce of PT. Royal Korindah, an analysis of the education, wages, age and work experience of the workforce of PT. Royal Korindah. The analysis was carried out by

distributing questionnaires to 100 respondents who became the research sample and the answers to the questionnaires were processed using Eviews9 software.

Data analysis using multiple linear regression aims to see the how the influential of the independent variable on the dependent variable in the study.

The coefficient of determination or R<sup>2</sup> is used to measure the suitability of the model and determine the ability of the independent variable to explain the dependent variable (Ariefianto, 2012: 15). The results of data processing in this study showed the coefficient of determination or R2 obtained was 0.347578.

These results indicate that the variables of education, wages, age, and work experience are able to explain labor productivity at PT. Royal Korindah in Purbalingga Regency is 34.7%, while the remaining 65.3% is explained by other variables outside the model. The value of R2 in this regression model is small because the data used in the study is a cross section data.

Ariefianto (2012: 16) also explains that R2 is a measure of model suitability, but R2 is not the only measure used to measure model suitability. Excessive emphasis on this coefficient can lead to misleading results, because in previous studies it is not uncommon for low R2 values to be found. A low R2 value in the model is not an uncommon and strange phenomenon.

The results of data processing in this research showed the coefficient of determination or R obtained was 0.347578. These results indicate that the variables of education, wages, age, and work experience are only able to explain labor productivity at PT. Royal Korindah in Purbalingga Regency is 34.7%, while the remaining 65.3% is explained by other variables outside the model. The R<sup>2</sup> value in this regression model is small because the data used is cross section data.

Table 4. F Test Result

F-statistics	Prob. (F-statistic)	<b>Prob.</b> 5%	
12.65284	0.000000	0.05	

Source: Output Results Eviews9, 2020

The results of the F test obtained an F-table of 2.47 ( $\alpha$ = 5% and df = 95) the F-count value is 12.65284. The calculated F value is 12.65284 > F table is 2.47 and the F-statistic probability value is 0.000000. Based on these results, the variables of education, wages, age, and work experience together or simultaneously have a significant positive effect on labor productivity at PT. Royal Korindah in Purbalingga Regency.

Table 5. T Test Result

Variable	t-Statistics	Prob	A
Education	4,775319	0.0000	1%
Wage	5.502439	0.0000	1%
Age	1.698982	0.0926	10%
Work experience	-0.435599	0.6641	10%

Source: Output Results Eviews9, 2020

Table 5 shows that the statistical t test results on the education variable are 4.775319 and the probability is 0.0000 <0.01, which means that there is a positive and statistically significant effect on labor productivity at PT. Royal Korindah. The wage variable shows the statistical t test result of 5.502439 with a probability of 0.0000 <0.01 which means that there is a statistically significant effect on labor productivity at PT. Royal Korindah.

The result of t-test statistic on the variable age is 1.698982 with a probability of 0.0926<0.10, which means that there is a significant influence between the age variable on labor productivity at PT. Royal Korindah. The work experience variable shows the t-test statistic of -0.435599 with a probability of 0.6641> 0.10 which means that there is no difference between the productivity of experienced and inexperienced workers at PT. Royal Korindah.

The data analysis used is multiple linear regression analysis to determine the effect of the variables of education, wages, age, and work experience on the productivity of PT. Royal Korindah, the regression equation model is obtained as follows:

$$Y = -11.56247 + 0.994793X1 + 4.33E-06X2 + 0.136865X3 - 0.058229 X4 .......(3)$$

Based on the equation model, it explains that the variables of education (X1), wages (X2), age (X3), and work experience (X4) have an effect on labor productivity of PT. Royal Korindah (Y).

Labor productivity can be influenced by various factors. In this research, the factors used were education, age, wages, and work experience on labor productivity at PT. Royal Korindah in Purbalingga Regency. Based on the estimation results in Table 4.6, it shows that the variables of education, age, wages, and work experience produce F-count 12.65284> F table of 2.47 and a significance value of 0.000000 <0.05, which means the variables of education, wages, age, and work experience has a positive and significant effect on labor productivity. By testing the simultaneous coefficient of determination (R2), the variables of education, age, wages, and work experience contributed 34.7% to the productivity of labor at PT. Royal Korindah in Purbalingga Regency. Meanwhile 65, 3% of labor productivity is influenced by other factors. The results of this research indicate that labor productivity is influenced by the factors of education, wages, age, and work experience together in accordance with the theory of labor productivity factors.

Labor productivity can be measured using a comparison of output and input (Sinungan, 2014: 12). In this research, the measurement of labor productivity is carried out by the number of results or products produced by labor divided by the number of workers. The results of this measurement can be used as a guide by business or industry players in an effort to increase labor productivity and the industry itself.

Based on the estimation results show that the education variable has a positive and statistically significant effect on labor productivity at PT. Royal Korindah in Purbalingga Regency at the real level of 1%. The regression coefficient value of the education variable is 0.994793. These results imply that when workers' education has increased by 1 year or the level of education, the labor productivity of PT. Royal Korindah in Purbalingga Regency will experience an increase of 0.994% with the

assumption that other variables are considered constant or equal to 0.

The results of this research are in line with the theory of Human Capital, where the increasing education of the labor will be able to increase their income. Siagian (2003) states that the high level of company productivity is not only through raw materials and labor, but is supported by other factors. These factors include education, training, job performance appraisal, reward system, motivation, and job satisfaction. In a research conducted by Aisyah (2020), education has a significant effect on the productivity of the female labor in the wigs.

Sedarmayanti (2009; 72) states that one of the factors affecting work productivity is education. This is because the higher the level of education, the broader the knowledge will be about the importance of productivity. In addition, workers with a structured mindset will be interested in taking productive actions and able to increase the level of labor productivity. The results of this research indicate that education has a significant and significant effect on labor productivity work.

Workers who have a higher level of education, meaning they have more insight and knowledge and are easier and more competent in capturing information. This encourages PT. Royal Korindah to qualify and standardize its labor through the level of education in order to provide a high standard of quality of labor and products produced.

Wage variables have a positive and statistically significant effect on **labor** productivity at PT. Royal Korindah in Purbalingga Regency at the real level of 1%. The regression coefficient value of the wage variable is 4.33E-06 or 0.00000433. These results imply that when PT. Royal Korindah experiences an increase of 1%, then the level of labor productivity will increase by 0.00000433% assuming other variables are considered constant.

The results of this research are in line with the theory of efficiency wages which states that high wages will increase their productivity, where with high wages, workers can buy better nutrition, thereby increasing the health quality of the labor and being more productive at work. Wages are an important factor for labor in increasing their productivity. Wages are one of the measuring tools in measuring welfare, therefore in this case the Government plays an active role in regulating wages. The government has regulated wages through the City / Regency Minimum Wage or UMK. In its regulation, MSEs are often debated between employers and workers because MSEs are still seen from one side only, where to meet the needs of life through salary. This thought is considered not wrong, but still needs further thought. Because the issue of UMK problems only touches part of. Regarding labor wages, it has been regulated in Law no. 13 of 2003 strictly to protect labor wages which are the minimum wages by region or city / district.

Based on the results of research that shows a positive and significant effect of wages, the labor will further increase their productivity at work. The results of this research are in accordance with Adhadika's research (2014) which states that the higher the labor wage, the higher the productivity. In addition, there is a reciprocal relationship between wages and labor productivity. When workers feel comfortable with the wages they receive, it is expected that labor productivity will increase. In line with research conducted by Herawati and Sasana (2013), wages have a positive and significant effect on labor productivity in the shuttlecock industry in Tegal City.

In this research, the wages earned by workers are fixed wages that have been regulated by the government and companies in the form of UMK (Minimum Wage) or UMR (Regional Minimum Wage). What distinguishes one labor wage from another is the additional or intensive wage earned by adding hours of work or overtime which is calculated per hour. The application of additional working hours itself is adjusted to the needs of the company in meeting market demand. When market demand increases, the company will impose additional working hours to meet the amount of production. On the other hand, additional working hours will be reduced and even eliminated when the company feels that

production can be done only with normal working hours. The higher the wage for additional working hours, the higher wages and labor productivity. In addition, wage differences are also influenced by the level of workers' ability to complete production. The higher the level of labor ability, the higher the wages received.

The difference in wages received by PT. Royal Korindah based on the production results obtained by the labor. In this research, wages are a less dominant factor. This is due to the existence of UMR regulations which are the basis for wages for workers. However, wages affect labor productivity through the existence of wages for additional working hours that encourage workers to increase their production.

Age variable has a positive and statistically significant effect on labor productivity at PT. Royal Korindah in Purbalingga Regency at the real level of 10% with the regression coefficient value of the variable of 0.136865. These results mean that when the age of workers has increased by 1 year, the labor productivity of PT. Royal Korindah in Purbalingga Regency will experience an increase of 0.136865% with the assumption that other variables are considered constant.

The results of this study are in line with the opinion of Wirosuhardjo (1996: 302) which states that the age level of a worker has an effect on the work productivity of the workforce. The higher the age level of the workforce, the more mature the way and the mindset of workers will be. An older worker tends to have higher productivity than a younger workforce. This is in line with research conducted by Kumbadewi (2016) which states that the age variable partially has a positive and significant effect on employee productivity at UD Puji Jiwa Seni.

Age of labor of PT. Royal Korindah majority of is in the productive age, namely 30-41 years, 51% of the total respondents or a number of 51 workers. There are 3 workers aged 42-53 years who are the highest age of labor at PT. Royal Korindah. Workers who are of a productive age will have high morale and high curiosity. So, the labor tries to keep learning to increase its productivity. In addition, at work,

workers are required to work fast, resilient, meticulous and neat. In the manufacturing process of artificial eyelashes, patience and persistence are needed to produce quality products. Then the more productive and mature the labor will be, will have an effect on labor productivity.

Work experience variable has a negative but not statistically significant effect on labor productivity at PT. Royal Korindah in Purbalingga Regency at the real level of 10%. The regression coefficient value of -0.058229 means that the work experience variable of PT. Royal Korindah has not fully influenced the productivity of the labor at PT. Royal Korindah in Purbalingga Regency.

The results of this research are not in line with research conducted by Aisyah (2020) which states that work experience has a positive and significant effect on the productivity of female workers in the fake hair industry in Purbalingga Regency. This research explains that someone who has work experience will have a higher performance than a labor who has just entered the world of work. Another research conducted by Arianti (2015) states that individual work experience has a positive and statistically significant effect on the productivity of female workers in the small-scale jenang industry in Kudus Regency because work in this industry requires skill and neatness. In this research, it was explained that the ability of the labor would increase with the longer the female labor was engaged in this work so that it would affect their productivity. Meanwhile, for male workers, individual work experience does not have a significant effect. This is because the work carried out by male workers in the small-scale jenang industry is included in unskilled work so that work experience does not affect productivity.

Work experience of the labor at PT. Royal Korindah majority for 10-12 years amounting to 38% or a total of 38 workers. There are 2 workers with the longest work experience, namely> 15 years. The work experience referred to in this research is the length of work taken by workers in the artificial eyelashes processing industry both before and while working at PT. Royal

Korindah. Based on the data obtained, the results of the research which are respondents' answers indicate that the amount of production produced by labor is not affected by how long the work experience of the worker is.

The work system at PT. Royal Korindah is a work system that is not wholesale. Experienced workers are generally workers whose age is close to the maximum productive age. This means that there are other workers with low work experience who need to work more and more productively. An inexperienced labor will be more interested in adding hours of work to increase their productivity compared to an experienced labor. Given, the production process for making artificial eyelashes requires a separate technique and needs to be continuously studied by workers who have no more experience.

### **CONCLUSION**

Based on the results of research and discussion, conclusions can be drawn about labor productivity analysis at PT. Royal Korindah in Purbalingga Regency. The results of the research conclude that education, wages, age, and work experience (duration) together have a positive and significant effect on labor productivity at PT. Royal Korindah in Purbalingga Regency.

Educational variables have a positive and statistically significant effect on labor productivity at PT. Royal Korindah in Purbalingga Regency. Education has a positive and significant effect because the higher the level of education of the labor, the more qualified the labor will be and will increase the productivity of the labor.

Wage variables have a positive and statistically significant effect on labor productivity at PT. Royal Korindah in Purbalingga Regency. With the positive effect of wages, it means that the higher the level of wages given will increase the morale of the labor to increase productivity.

Age variable has a positive and statistically significant effect on labor productivity of PT. Royal Korindah in Purbalingga Regency. Age has a positive effect because the more mature the labor is, the higher the productivity.

Work experience variables have not fully influenced the productivity of labor at PT. Royal Korindah in Purbalingga Regency. Work experience does not have a real effect on labor productivity because experienced workers tend to reduce additional work hours in contrast to entrylevel workers.

### **REFERENCES**

- Adhadika, T., & Pujiyono, A. (2014). [Analisis Faktor Faktor Yang Mempengaruhi Produktivitas Tenaga Kerja Industri Pengolahan Di Kota Semarang (Studi Kecamatan Tembalang Dan Kecamatan Gunungpati)]. Diponegoro Journal of Economics, 3(1), 1–13. Retrieved from http://ejournals1.undip.ac.id/index.php/jme
- Agustina, D. (2018). [Strategi Penyerapan Tenaga Kerja Laki – laki pada Industri Rambut Palsu di Kabupaten Purbalingga]. Economics Development Analysis Journal, 7(3), 276– 285.
- Aisyah, F. D. & Shanty Oktavilia. (2020).

  [Analisis Produktivitas Tenaga Kerja Wanita
  Pada Industri Rambut Palsu]. Efficient
  Indonesian Journal of Development
  Economics, 3(3)
- Amron & Taufiq Imran. (2009). [Analisis Faktor-Faktor yang Berpengaruh Terhadap Produktivitas Tenaga Kerja Outlet Telekomunikasi Seluler Kota Makassar]. Jurnal Sekolah Tingi Ilmu Ekonomi Nobel Indonesia.
- Arianti, D. D., Marwanti, S., & Rahayu, W. (2015). [Analisis Faktor Sosial Ekonomi Yang Mempengaruhi Produktivitas Tenaga Kerja Pada Industri Jenang Skala Kecil Di Kabupaten Kudu]s. Agrista, 3(3), 272–283.
- Ariefianto, Moch. Doddy. 2012. Ekonometrika Esensi dan Aplikasi dengan Menggunakan Eviews. Jakarta: Erlangga.
- Asadullah Tahir, M., Aslam Shahid, Z., & Hanif, A. (2015). Factors Affecting Labor Productivity in Building Projects of Pakistan. *International Journal of Management and Applied Science*, (12), 2394–7926.
- Babaeinesami, A., & Babaeinesami, M. (2016). Factors affecting labor productivity in the government organization of Iran.

- American Journal of Research Communication, 4(2), 133–144.
- Badan Pusat Statistik (BPS) Jawa Tengah dalam angka. PDRB Atas Dasar Harga Konstan Menurut Lapangan Usaha Kabupaten Purbalingga Tahun 2014-2019.
- Badan Pusat Statistik (BPS) Jawa Tengah dalam angka. Penduduk Berumur 15 Tahun ke Atas (Angkatan Kerja) yang Bekerja Berdasarkan Kabupaten/Kota di Jawa Tengah Tahun 2014-2018.
- Badan Pusat Statistik (BPS) Kabupaten Purbalingga. Jumlah Penduduk Menurut Kelompok Usia di Kabupaten Purbalingga Tahun 2014-2018.
- Badan Pusat Statistik (BPS) Kabupaten Purbalingga. *Upah Minimum Kabupaten Purbalingga Tahun 2014-2019*.
- Bellante, Don. & Mark Jackson. (2000). *Ekonomi* Ketenagakerjaan Edisi Terjemahan. Jakarta: FE UI.
- Dinsosmakertrans Kabupaten Purbalingga.

  Jumlah Pekerja dan Daftar Perusahaan
  Pengolahan Rambut di Kabupaten
  Purbalingga Tahun 2018.
- Dumairy. (1996). *Matematika Terapan untuk Bisnis* & *Ekonomi Edisi 2*. Yogyakarta: BPFE.
- Ghozali, Imam. (2006). Analisis Multivariate Lanjutan Dengan Program SPSS. Semarang: Badan Penerbit Unversitas Diponegooro.
  - \_\_\_\_\_ (2007). Aplikasi Analisis

    Multivariate dengan Program SPSS.

    Semarang: Badan Penerbit Universitas
    Diponegoro.
- Gujarati, Damodar. (2006). Dasar-Dasar Ekonometrika. Jakarta: Erlangga.
- \_\_\_\_\_ (2007). Ekonometrika Dasar. Jakarta: Erlangga.
- Herawati, N., & Sasana, H. (2013). [Analisis Pengaruh Pendidikan, Upah, Pengalaman Kerja, Jenis Kelamin dan Umur Terhadap Produktivitas Tenaga Kerja Industri Shuttlecock Kota Tegal]. Diponegoro Journal of Economics, 2(4), 1 8. Retrieved from http://ejournal
  - s1.undip.ac.id/index.php/jme
- Husein, Umar. (2002). *Metode Riset Bisnis*. Jakarta: PT. Gramedia.
- Idin, L. (2016). [Analisis produktivitas tenaga kerja pada pengolahan kopra di kota raha]. Ekonomi, I(April),155–163. https://doi.org/10.1074/jbc.M10801420 0
- Joesron, T. S, & Fathorrazi, M. (2012). *Teori Ekonomi Mikro*. Yogyakarta: Graha Ilmu.
- Kumbadewi, L. S., Suwendra, I. W., & Susila, G. P. A. J. (2016). [Pengaruh Umur,

- Pengalaman Kerja, Upah, Teknologi dan Lingkungan Kerja Terhadap Produktivitas Karyawan]. e-Journal Bisma Universitas Pendidikan Ganesha, 4.
- Lestari, S. T. (2010). [Analisis Persebaran Industri Besar di Kabupaten Purbalingga Berbasis Sistem Informasi Geografis (SIG)]. Jurnal Skripsi, Prodi Geografi Fakultas Ilmu Sosial, Universitas Negeri Semarang. http://lib.unnes.ac.id/id/eprint/8315.
- Mahamid, I. (2013). Principal Factors Impacting
  Labor Productivity of Public Construction
  Projects in Palestine: Contractors'
  Perspective. International Journal of
  Architecture, Engineering and Construction,
  2(3).
- https://doi.org/10.7492/ijaec.2013.018
- Mankiw N, Gregory, dkk. (2012). *Pengantar Ekonomi Mikro*. Jakarta: Salemba Empat.
- Manuaba, A. (1992). [Penerapan Ergonomi untuk Meningkatkan Kualitas Sumber Daya Manusia dan Produktivitas]. Dalam: Seminar Kesehatan dan Keselamatan Kerja. IPTN Bandung.
- Moekijat. (1999). [Manajemen Sumber Daya Manusia (Manajemen Kepegawaian)]. Bandung: CV. Mandar Maju.
- Mohd Razak, M. I., Osman, I., Mohd Yusof, M. A., Naseri, R. N. N., & Ali, M. N. (2014). Factors Affecting Labor Productivity in Malaysia. *International Journal of Economics, Commerce and Management*, II(10), 1–13. Retrieved from http://ijecm.co.uk/wp-content/uploads/2014/10/21019.pdf
- Montaser, N. M., Mahdi, I. M., Mahdi, H. A., & Rashid, I. A. (2018). Factors Affecting Construction Labor Productivity for Construction of Pre-Stressed Concrete Bridges. *International Journal of Construction Engineering and Management*, 7(6), 193–206.
  - https://doi.org/10.5923/j.ijcem.2018070 6.01
- Mulyono, Mauled. (1993). *Penerapan Produktivitas dalam Organisas*i. Jakarta:
  Bumi Aksara
- Nachrowi, D. N. & H. Usman. (2006). Ekonometrika Pendekatan Populer dan Praktis untuk Analisis Ekonomi dan Keuangan. Jakarta: LPFEUI
- Pemerintah Indonesia. (2003). *Undang-Undang No. 13 Tahun 2003 tentang Ketenagakerjaan*. Lembaran Negara RI Tahun 2003, No. 13. Jakarta: Sekretariat Negara.

- Pemerintah Indonesia. (1981). Peraturan Pemerintah No. 8 Tahun 1981 tentang Upah Minimum.
- Pemerintah Indonesia. (2015). Peraturan Pemerintah No. 78 Tahun 2015 tentang Pengupahan.
- Putri, H. R. (2016). [Pengaruh pendidikan, pengalaman kerja, dan jenis kelamin terhadap produktivitas kerja karyawan bagian produksi CV. Karunia Abadi Wonosobo]. Jurnal Pendidikan Dan Ekonomi, 5(4), 292–300.
- Ravianto, J. (1986). Produktivitas dan Pengukuran:
  Bagaimana Mengukur Produktivitas.
  Jakarta: Lembaga Sarana Informasi
  Usaha.
- Rizal, M., & Sholehuddin, S. (2019). Factors Affecting Labor Productivity of Small Manufacturing Industry. *Jurnal Manajemen Dan Kewirausahaan*, 7(1), 47–52.
  - https://doi.org/10.26905/jmdk.v7i1.269
- Rochaningrum, E. & Dyah Maya, N. (2018). [Faktor yang Mempengaruhi Keputusan Tenaga Kerja Sarjana untuk Bekerja atau Tidak Bekerja]. Economic Development Analysis Journal. 7(1)
- Santoso, Singgih. (2004). Buku Latihan SPSS, Statistik Parametrik. Jakarta: Gramedia
- Sedarmayanti. (2009). Sumber Daya Manusia dan Produktivitas Kerja. Bandung: Mandar Maju.
- Setiadi. (2009). [Pengaruh Upah dan Jaminan Sosial terhadap Produktivitas Kerja Karyawan di PT. Semarang Makmur Semarang]. Jurnal Program Pascasarjana Universitas Diponegoro Semarang.
- Setiawan, A. H. (2010). [Analisis Penyerapan Tenaga Kerja pada Sektor Usaha di Kota Semarang]. Jejak, 3(1), 39-47.
- Siagian, Sondang. P. (2003). *Manajemen Sumber Daya Manusia*. Jakarta: Bumi Aksara
- Simanjuntak, P. J. (1985). *Pengantar Ekonomi Sumber Daya Manusia*. Jakarta: LPFEUI
- Sinungan. (2014). Produktivitas: Apa dan Bagaimana. Jakarta: Bumi Aksara
- Soekartawi. (1990). *Teori Ekonomi dan Produksi.* Jakarta: Rajawali.
- Stacia, V., Yusuf, & Gunanto, E.Y. A. (2014). [Profil Industri Bulu Mata Dan Rambut Palsu Di Kabupaten Purbalingga]. Diponegoro Journal of Economics, 3(1), 1–10. Retrieved from http://ejournal-s1.undip.ac.id/index.php/jme
- Sugiyono. (2012). Metode Penelitian Kuantitatif Kualitatif dan R&D. Bandung: Alfabeta.

- Sulistiyani, A. T. & Rosidah. (2003). *Manajemen Sumber Daya Manusia*. Yogyakarta: Graha Ilmu
- Sumarlin, Syarief., Ritonga., & Sorpjuzilam. (2010). [Analisis Hubngan Tingkat Upah Tinggi terhadap Produktivitas di Indonesia]. Jurnal MEPA Ekonomi USU.
- Sumarsono, S. (2003). Ekonomi Manajemen Sumber Daya Manusia dan Ketenagakerjaan. Yogyakarta: Graha Ilmu
- Sumarsono, S. (2009). Ekonomi Sumber Daya Manusia Teori dan Kebijakan Publik. Yogyakarta: Graha Ilmu.
- Terry, G. R. (1996). *Dasar-Dasar Manajemen*. Jakarta: Bumi Aksara
- Timpe. (2000). Seri Manajemen Sumber Daya Manusia: Produktivitas. Jakarta: Gramedia.
- Todaro, M. P. & Smith. (2003). *Pembangunan Ekonomi di Dunia Ketiga*. Jakarta: Erlangga
- Ukkas, I. (2017). [Faktor-Faktor yang Mempengaruhi Produktivitas Tenaga Kerja Industri Kecil Kota Palopo]. Journal of Islamic Education Management, 2(2), 187–198. Retrieved from imranukkas@stiem.ac.id.