

Labor Productivity of the Silk Weaving Industry: A Case Study in Pakkanna Village, Wajo Regency

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ABSTRACT

This study aims to determine the factors that influence labor productivity in the silk weaving industry with a case study of weaving workers in Pakkanna Village, Tanasitolo District, Wajo Regency. The quantitative research method is used in this study using multiple regression analysis to examine the effect of age, length of work, and wages on labor productivity in the silk weaving industry. Data were collected using a questionnaire involving 39 respondents from the silk weaving industry in Pakkanna Village, Tanasitolo District, Wajo Regency. The test results show that simultaneously, the variables of age, length of work, and wages significantly affect labor productivity in the silk weaving industry. On the other hand, the partial test results show that the age variable has no significant effect on labor productivity, and the variable length of work and wages have a significant effect on the labor productivity of the weaving industry. The recommendations in this study are addressed to the government and industry players to guide training to silk weaver workers so that productivity and quality can be increased and pay attention to their welfare. In addition, the government and industry players are expected to continue to work together to promote and develop the silk industry in Wajo Regency.

Keywords: Age; Length of Work; Wages; Labor Productivity; Silk Weaving Industry

INTRODUCTION

Indonesia has a variety of local riches, both cultural and diverse products, as one of the assets owned by Indonesia is silk in Wajo Regency. Wajo Regency has always been a silk-producing area for good and quality silk production and is also the largest silk-producing area in South Sulawesi. In the local language, it is known as “Lipa’ Sabbe” in Bugis language, namely lipa’ means *sarong*, and *sabbe* means silk., so that Sengkang City, which is the capital of Wajo Regency, is dubbed the “City of Silk”. Apart from Sengkang City, weavers and silk producers are also scattered in the Wajo Regency sub-districts in the Tanasitolo District.

Government support for the development and productivity of the silk weaving industry in Wajo Regency, as quoted from the website page, is that the Wajo Regency government has a promotion building and silk laboratory to serve as a place to introduce superior silk products. Furthermore, as a place to test the quality of threads and silk fabrics owned by Wajo Regency so that the products marketed can satisfy consumers because they have gone through a testing process in terms of quality (“Makassar Tribunews,” 2018).

In addition to constructing a silk laboratory, the government has also programmed one of the target villages (Sutera Village), which will become the center of the commodity and silk

weaving industry in Wajo Regency, namely Impa-Impa hamlet, Pakkanna Village, Tanasitolo District, Wajo Regency. Because most of the residents of Pakkanna Village depend on silk weaving for their lives, some even make it their main job, especially for housewives (women). This village concentrates on fostering and developing weaving carried out by the Wajo Regency government. One form of coaching carried out is a comparative study training program outside Sulawesi, namely on the island of Java

Of the several breakthroughs and efforts that the government has made to develop silk in Wajo Regency, it cannot be separated from the support from the government of South Sulawesi Province. For the development of silk in South Sulawesi, JICA (Japan International Cooperation Agency) - RDPLG (Regional Development Policies for Local Government), in collaboration with Bappeda of South Sulawesi, drafted the concept of cooperation in the development of the natural silk industry in South Sulawesi. The cooperation involves four districts, namely Soppeng, Enrekang, Sidrap, and Wajo districts. In addition, the local government of South Sulawesi has also launched the Golden Gate program (Community Economic Development Movement), with one of the targets being the development of the South Sulawesi silk industry. The collaboration is for upstream to downstream industrial activities. Soppeng as a producer of mulberry, silkworms, and cocoons, together with Enrekang as a center for spinning yarn, is an upstream industry, which supports downstream industries in Sidrap and Wajo as centers for weaving silk fabrics.

Although the government has spent funds to build a laboratory and a silk village program, the production and quality of Wajo silk can be better without the support of the community (silk weaving craftsmen) who are the producers of these goods; this cannot be achieved. What is meant by support is the productivity of labor or weaving craftsmen in making sarongs or silk fabrics.

The ability of the workforce to complete or make one unit of sarong/silk cloth is not permanent and inconsistent; it is feared that it will greatly affect the number of products produced and the quality of the goods produced. Therefore, the issue of labor is very important for companies to pay attention to because labor is one of the main factors to measure the success and success of a company in producing goods.

Labor productivity is a way to measure how employees or the workforce are used properly in the production process to realize or achieve good results as desired. Therefore, the company needs a professional workforce to carry out its activities optimally. Labor productivity is a description of the ability of workers to produce output. It is because productivity is the result that is owned, with high work productivity indicating the workforce's ability is also high. Productivity contains a philosophical-qualitative and quantitative-technical operational understanding. Philosophically quantitatively, productivity contains a view of life and a mental attitude that seeks to improve the quality of life. Today's situation must be better than yesterday's, and tomorrow's quality of life must be better than today's.

Factors that can affect labor productivity are age, length of work, and wages. Age is one of the factors that can affect the quality and productivity of employees at work. For example, the ability to work between parents and young children is very different where the ability to work of parents is lower than the ability of young people to work; this is because it is influenced by age or age factors.

while another factor that can affect labor productivity is the length of work, where the comparison between people who have worked for a long time with people who have just worked in a company is different because of experience.

In addition to age and length of work, another factor that can affect labor productivity is wages. Wages are rewards for the services of a person or employee who has worked or served . Therefore, wages are one of the important factors in increasing labor productivity in a company because someone does work expecting wages. Furthermore, the greater the wages are given by the company, the more active and maximal at work.

METHOD

The type of research used in this research is quantitative analysis. The data taken from the sample is processed and analyzed using the SPSS application . This research was conducted in Pakkanna Village, Tanasitololo District, Wajo Regency. The time of this research was carried out from January to February 2019. The data collection technique used in this study was a questionnaire or questionnaire distributed to 39 people in the silk weaving industry in Pakkanna Village, Tanasitololo District, Wajo Regency. The questionnaire collected data on age, length of work, and labor productivity in the silk weaving industry in Pakkanna Village, Tanasitololo District, Wajo Regency.

RESULT AND DISCUSSION

The following results are obtained in the regression of capital, productivity, and wages on the absorption of labor in the silk weaving industry in Wajo Regency by using the SPSS 22 application.

Validity and Reliability Testing

1. Testing the validity of the minimum requirements that are considered to meet is 0.30. The correlation between items with a total score of less than 0.30, the items in the instrument are declared invalid, but if the correlation between items with a total score above 0.30, then the instrument items declared valid. Therefore, based on the validity test results of the variables of age, length of work, wages, and productivity in this study, all are considered valid because the correlation value is above 0.30.
2. Reliability testing, the instrument can be reliable if the variable has a Cronbach Alpha above 0.60. If the variable has a Cronbach value below 0.60, then the variable is reliable. Therefore, this study shows that the Cronbach Alpha value of the four variables (age, length of work, wages, and productivity) is above 0.60. Then it can be ascertained that the data is reliable

Classical Assumption Test

1. The normality test aims to test whether, in the regression model, the dependent variable and the independent variable both have a normal distribution or not. Based on the normality test

results, it is known that the significant value is greater than 0.05, namely 0.200. Furthermore, while looking at the histogram graph, it is known that the distribution pattern is close to normal because the data follows the direction of the histogram graph line. Meanwhile, the Normal Probability Plot image shows that the data spread around the diagonal line and follows the direction of the diagonal line, and shows a normal distribution pattern, so it can be concluded that the data is normal.

2. In the summary table of the autocorrelation test results, it can be seen that the Durbin Watson (DW) value is 1.746. It indicates that the data does not occur autocorrelation. This can be seen in the following formula: $D_l = 1.328$ and $D_u = 1.657$ (from Durbin Watson's table) $D_l < DW < D_u$ ($1.328 < 1.746 < 1.657$)
3. Multicollinearity test. Based on the results of the analysis showed that the tolerance value of each independent variable, namely age (0.921), length of work (0.984), and wages (0.936), was higher than 0.10. While the VIF value of each variable, namely age (1.086), length of work (1.016), and wages (1.069), is smaller than 10.0. So it can be concluded that the data does not occur multicollinearity in the regression model.
4. The heteroscedasticity test is based on the analysis or processing of the regression data between the independent variables and the absolute residual value. From the SPSS output on the Scatterplot graph, it can be seen that the points are spread out and do not form a clear pattern. So it can be concluded that there is no heteroscedasticity in the regression model, so it is feasible to predict how the variables are influenced based on the input of the independent variables.

Multiple Regression Test

1. The constant value obtained is 10.495, which means that if the variables of age (X1), length of work (X2), and wages (X3) are 0 or constant, the labor productivity of the silk weaving industry (Y) is 10,495. Therefore, the positive constant value (10,495) can be interpreted as the average contribution of other variables outside the model positively impacting labor productivity.
2. Age (X1) regression constant value generated age variable 0.299. It means that if the variable length of work and wages are constant. Furthermore, the age variable has increased by 1%; labor productivity will increase by 0.299%. The coefficient is positive (+), meaning a positive relationship between age and labor productivity.

Table 1
Age Validity Test Results

		Correlations				
		Item 1	Item 2	Item 3	Item 4	Total
Item 1	Pearson Correlation	1	-.082	.627**	-.113	.768**
	Sig. (2-tailed)		.621	.000	.495	.000
	N	39	39	39	39	39
Item 2	Pearson Correlation	-.082	1	-.169	.371*	.391*
	Sig. (2-tailed)	.621		.305	.020	.014
	N	39	39	39	39	39
Item 3	Pearson Correlation	.627**	-.169	1	-.193	.662**
	Sig. (2-tailed)	.000	.305		.239	.000
	N	39	39	39	39	39
Item 4	Pearson Correlation	-.113	.371*	-.193	1	.354*
	Sig. (2-tailed)	.495	.020	.239		.027
	N	39	39	39	39	39
Total	Pearson Correlation	.768**	.391*	.662**	.354*	1
	Sig. (2-tailed)	.000	.014	.000	.027	
	N	39	39	39	39	39

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

3. Length of Work (X2) the value of the regression constant for the variable length of work is 0.344. It means that if the variables of age and wages are constant. Furthermore, the variable length of work has increased by 1%; labor productivity will decrease by 0.344%. Therefore, the coefficient is positive (+), meaning a positive relationship between the length of work and labor productivity.

Table 2
Validity Test Results of Working Time

		Correlations				
		Item 1	Item 2	Item 3	Item 4	Total
Item 1	Pearson Correlation	1	.155	-.055	.296	.372*
	Sig. (2-tailed)		.345	.738	.068	.020
	N	39	39	39	39	39
Item 2	Pearson Correlation	.155	1	.327*	.323*	.854**
	Sig. (2-tailed)	.345		.042	.045	.000
	N	39	39	39	39	39
Item 3	Pearson Correlation	-.055	.327*	1	.261	.467**
	Sig. (2-tailed)	.738	.042		.108	.003
	N	39	39	39	39	39
Item 4	Pearson Correlation	.296	.323*	.261	1	.644**
	Sig. (2-tailed)	.068	.045	.108		.000
	N	39	39	39	39	39
Total	Pearson Correlation	.372*	.854**	.467**	.644**	1
	Sig. (2-tailed)	.020	.000	.003	.000	
	N	39	39	39	39	39

* . Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

4. Wage (X3) the value of the regression constant for the wage variable is 0.337. It means that if the variables of age and length of work are constant. Furthermore, the wage variable has increased by 1%, and labor productivity will increase by 0.337%. Therefore, the coefficient is positive (+), meaning a positive relationship between wages and labor productivity.

Table 3
Wage Validity Test Results

		Correlations				
		Item 1	Item 2	Item 3	Item 4	Total
1	Item Pearson Correlation	1	.360*	.225	-.124	.522**
	Sig. (2-tailed)		.024	.168	.453	.001
	N	39	39	39	39	39
2	Item Pearson Correlation	.360*	1	.318*	.057	.691**
	Sig. (2-tailed)	.024		.048	.729	.000
	N	39	39	39	39	39
3	Item Pearson Correlation	.225	.318*	1	.159	.689**
	Sig. (2-tailed)	.168	.048		.335	.000
	N	39	39	39	39	39
4	Item Pearson Correlation	-.124	.057	.159	1	.532**
	Sig. (2-tailed)	.453	.729	.335		.000
	N	39	39	39	39	39
Total	Item Pearson Correlation	.522**	.691**	.689**	.532**	1
	Sig. (2-tailed)	.001	.000	.000	.000	
	N	39	39	39	39	39

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis Testing

1. Test of determination (R²) Based on the output of the model summary table above, it shows the amount of Adjusted R Square symbolized by R² (adjusted coefficient of determination) is 0.281. It shows that the large percentage of variation in labor productivity that can be explained by variations of the three independent variables, namely age (X1), length of work (X2), and wages (X3), is 28.1%, while the rest is 71.9%. explained by other variables outside the study
2. Simultaneous test (F test) from the analysis results or processed in the ANOVA table shows that the significant value is 0.008 while the standard statistical value is 0.05. Therefore, it can be said that the significant value on the independent variables, namely age, length of work, and wages, is smaller than the value. On the other hand, the statistical standard is 0.05, so it can be concluded that statistically, the independent variables together affect the dependent variable, namely the labor productivity of the silk weaving industry in Pakkanna Village, Tanasitolo District, Wajo Regency.

Partial test (t-Test)

1. For the age variable (X1), Based on the Coefficients Table in the partial test, the coefficient value for the age variable is 0.299, and the significance value for the age variable is 0.115, which is stated to be greater than the level of $= 0.05$ ($0.115 > 0.05$). These results show that the age variable has no positive and insignificant effect on labor productivity in the silk weaving industry. So this is different from the previous hypothesis, which states that age is positively and significantly related to labor productivity.
2. For the variable length of work (X2), Based on the Coefficients Table in the partial test above, the coefficient value for the length of work is 0.344, and the significance value for the income variable is 0.026, which is stated to be smaller than the level of $= 0.05$ ($0.026 < 0.05$). These results show that the variable length of work has a positive and significant effect on labor productivity in the silk weaving industry. It is the same as the previous hypothesis, which states that the length of work is positively and significantly related to labor productivity.

For the wage variable (X3), Based on the Coefficients Table in the partial test above, the wage coefficient value is 0.337, and the significance value for the income variable is 0.017, which is stated to be smaller than the level of $= 0.05$ ($0.017 < 0.05$). From these results, it can be concluded that the wage variable has a positive and significant effect on labor productivity in the silk weaving industry. So this is the same as the previous hypothesis, which states that wages are positively and significantly related to labor productivity.

CONCLUSION

Based on the results of research on labor productivity in the silk weaving industry in Pakkanna Village, Tanasitolo District, Wajo Regency as follows: 1) The age factor has no significant effect on labor productivity in the silk weaving industry in Pakkanna Village, Tanasitolo District, Wajo Regency. With a significant value of 0.115 or greater than 0.05, 2) The length of work significantly affects labor productivity in the silk weaving industry in Pakkanna Village, Tanasitolo District, Wajo Regency. With a significant value of 0.026 or less than 0.05, and 3) The wage factor has a significant and significant effect on the labor productivity of the silk weaving industry in Pakkanna Village, Tanasitolo District, Wajo Regency. With a significant value of 0.017 or less than 0.05.

REFERENCES

- Arieska, P. K., & Herdiani, N. (2018). Pemilihan Teknik Sampling Berdasarkan Perhitungan Efisiensi Relatif. *Jurnal Statistika Universitas Muhammadiyah Semarang*, 6(2).
- Azhari, M. (2018). Agrowisata Sutera di Sengkang Sulawesi Selatan. *UIN Alauddin Makassar*.

- Aziz, N. L. L. (2016). Otonomi desa dan efektivitas dana desa. *Jurnal Penelitian Politik*, 13(2), 193–211.
- Billah, Z. I., & Mulyani, S. (2019). Model Pemberdayaan Ekonomi Petani Berbasis Pengembangan Industri Hulu ke Hilir untuk Meningkatkan Nilai Tambah Potensi Desa. *Iqtishodiyah: Jurnal Ekonomi Dan Bisnis Islam*, 5(1).
- Boarnet, M. G., Chalermpong, S., & Geho, E. (2005). Specification issues in models of population and employment growth. *Papers in Regional Science*, 84(1), 21–46.
- Bryman, A., & Cramer, D. (2002). *Quantitative data analysis with SPSS Release 10 for Windows: A guide for social scientists*. Routledge.
- Chadha, G. K., & Sahu, P. P. (2002). Post-reform setbacks in rural employment: Issues that need further scrutiny. *Economic and Political Weekly*, 1998–2026.
- Dasriyanti, N. (2018). *Faktor-Faktor yang Mempengaruhi Penyerapan Tenaga Kerja Industri Kain Tenun Sutra di Kabupaten Wajo* [PhD Thesis]. Universitas Islam Negeri Alauddin Makassar.
- Haryadi, W. (2015). Faktor-Faktor Yang Mempengaruhi Produktivitas Tenaga Kerja Industri Kerajinan Tangan Di Koperasi Penjahit Samba Desa Sekongkang Bawah Kecamatan Sekongkang Kabupaten Sumbawa Barat Tahun 2015. *JURNAL EKONOMI & BISNIS*, 1(2).
- Hernawati, T. (2010). Produktivitas Industri Dan Sistem Pengukuran. *UI Sumatera Utara*, 9.
- Inanna, I. (2014). *Kearifan Lokal Pada Industrt Kerajinan Kain Tenun Sutura Di Kabupaten Wajo*.
- Iskandar, A. S. (2018). Customer Relationship Management dan Pengaruhnya terhadap Loyalitas Nasabah pada Bank Rakyat Indonesia (BRI) Syariah Kantor Cabang Pembantu (KCP) Kota Palopo. *Dinamis: Journal of Islamic Management and Bussiness*, 1(1).
- Iskandar, A. S. (2014). Analisis Penempatan Pegawai Negeri Sipil pada Dinas Kelautan dan Perikanan Kota Palopo. *MUAMALAH*, 4(2), 33-46.
- Jafri, H. E., & Mustikasari, E. (2018). Pengaruh Perencanaan Pajak, Tunnneling Incentive dan Aset Tidak Berwujud Terhadap Perilaku Transfer Pricing pada Perusahaan Manufaktur yang Memiliki Hubungan Istimewa yang Terdaftar di Bursa Efek Indonesia Periode 2014-2016. *Berkala Akuntansi Dan Keuangan Indonesia*, 3(2), 63–77.
- Kumalaningrum, P. M., Kusumawati, H., & Hardani, R. P. (2011). Manajemen Operasi, cetakan kedua. *Yogyakarta, Penerbit: UPP STIM YKPN*.
- Lasi, H., Fettke, P., Kemper, H.-G., Feld, T., & Hoffmann, M. (2014). Industry 4.0. *Business & Information Systems Engineering*, 6(4), 239–242.

- Liana, L. (2008). Pembinaan dan pengembangan usaha kecil sebagai sarana memperkuat struktur perekonomian nasional. *Jurnal Bisnis Dan Ekonomi*, 15(2), 242-49.
- Makassar tribunnews. (n.d.). *makassar tribunnews*. Retrieved July 9, 2018, from <http://makassar.tribunnews.com>
- Sadapotto, A. (2017). *Kerjasama dalam pengembangan sutera di Sulawesi Selatan*. Institut Pertanian Bogor.
- Setiani, B. (2013). Kajian sumber daya manusia dalam proses rekrutmen tenaga kerja di perusahaan. *Jurnal Ilmiah Widya*, 1(1), 38-44.
- Sulaeman, A. (2014). Pengaruh upah dan pengalaman kerja terhadap produktivitas karyawan kerajinan ukiran Kabupaten Subang. *Trikonomika*, 13(1), 91-100.
- Sulvinajayanti, S., Cangara, H., & Bahfiarti, T. (2015). Makna pesan komunikasi motif kain sutera Sengkang pilihan konsumen di Kota Makassar. *KAREBA: Jurnal Ilmu Komunikasi*, 37-45.
- Suryaputri, I. Y., Rosha, B. C., & Anggraeni, D. (2014). Determinan kemampuan motorik anak berusia 2-5 tahun: Studi kasus di Kelurahan Kebon Kalapa Bogor. *Nutrition and Food Research*, 37(1), 43-50.
- Syukur, M. (2017). Basis Jaringan Sosial-Ekonomi Penenun Bugis-Wajo. *Jurnal Sosialisasi: Jurnal Hasil Pemikiran, Penelitian Dan Pengembangan Keilmuan Sosiologi Pendidikan*, 2(2).

