

Determinants Of Labor Absorption In The Creative Economy Sector: A Case Study Of 34 Provinces In Indonesia

Muhammad Hafidz¹, Neli Aida²

^{1,2}Faculty of Economics and Business, University of Lampung, Indonesia

Co-author: hafidzmuhammad6492@gmail.com

Abstract

Labor absorption is an important indicator in measuring the success of economic development, especially in fast-growing sectors such as the creative economy. This study aims to analyze the influence of the average wages of creative economy workers, education level, and internet use on labor absorption in the creative economy sector in 34 provinces in Indonesia during the period 2018 to 2021. In addition, this study also examines whether there are significant differences in the absorption of creative economy labor before and during the Covid-19 pandemic. The results of the study show that the average wage variable of creative economy workers has a negative and insignificant influence on labor absorption. Meanwhile, the level of education and internet use have a significant positive influence on the absorption of labor in the creative economy sector. In addition, there is a significant difference in the number of creative economy workers between before and during the Covid-19 pandemic, where during the Covid-19 pandemic the number of Creative Economy Workers decreased compared to before the occurrence of Covid-19.

Keywords: Creative Economy, Labor, Wages, Education, Internet, Covid-19

INTRODUCTION

In the era of globalization and digital transformation that is increasingly rapid, the creative economy has emerged as one of the strategic sectors that has a significant role in national economic development. As a country with abundant cultural wealth and a large young population, Indonesia has enormous potential in the development of the creative

1884

IJEBIR, Volume 04 Issue 04, 2025

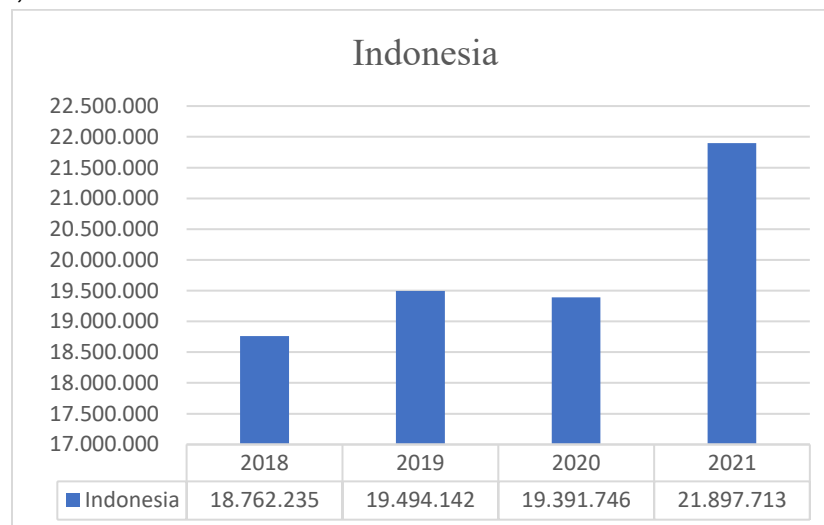


Copyright at authors some right reserved this work is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/).

economy, especially in terms of labor absorption. The creative economy is not only a driver of economic growth but also plays an important role in creating quality and sustainable jobs (Rahmi, 2018).

The creative economy can be defined as an economic sector that comes from the use of individual creativity, skills, and talents to create welfare and employment through the creation and utilization of the individual's creativity and creativity. In 2013, John Howkins expanded this definition by stating that the creative economy is a system of human activities related to the creation, production, distribution, exchange, and consumption of goods and services of cultural, artistic, aesthetic, intellectual and emotional value (Kaimuddin, 2020).

In recent years, the creative economy sector in Indonesia has shown significant growth, although there was a decline in 2020, the absorption of creative economy labor continues to show excellent growth. According to data from the Indonesian Creative Economy Workforce, the number of workers in this sector increased from 18,762,235 in 2018 to 21,897,713 in 2021.



Source: Ministry of Tourism and Creative Economy

Picture 1. Indonesia's Creative Economy Workforce in 2018-2021 (Thousand People)

In Figure 1, the data on the Creative Economy Workforce at the national level shows consistent year-on-year growth, except in 2020, which experienced a slight decline from the previous year. In 2018, the number of creative economy workers was recorded

1885

at 18.76 million people. This figure marks the beginning of a growth trend that continues into the following years. In 2019, the number of workers increased to 19.4 million, reflecting the attractiveness of the creative economy sector as a promising source of employment opportunities in Indonesia.

However, the impact of the *COVID-19* pandemic that hit the world in 2020 put pressure on the creative economy sector. The number of workers has decreased to 19.3 million people, reflecting the major challenges faced by this sector due to social restrictions, the closure of business premises, and changes in people's consumption patterns.

In 2021, the sector began to show signs of recovery with the number of workers increasing to 21.8 million people. This recovery can be attributed to the rapid adaptation of creative economy business actors who are leveraging digital technology to expand their markets. In addition, government policies in supporting MSMEs and creative actors through various stimuli also contribute to the revival of this sector (Suciu, 2008).

Indonesia's creative economy workforce for the period 2018 to 2021 shows an interesting growth trend with different dynamics in each province. Nationally, despite fluctuations due to various external factors, there is a tendency to increase the number of workers in this sector, confirming that the creative economy is one of the important motors in the national economy.

In 2020, when the *COVID-19* pandemic shook the economy, several provinces actually recorded an increase in the number of creative economy workers compared to the previous year. This phenomenon reflects the resilience and adaptability of the creative sector in Indonesia to the crisis.

Structurally, the workforce shows the consistency of regional groupings in Indonesia's creative economy sector. The island of Java remains the main island, hosting around 72.7% of the total national creative workforce in 2021. Sumatra accounts for around 15.1%, followed by Sulawesi (4.5%), Bali and Nusa Tenggara (4.4%), Kalimantan (3.0%), and Maluku and Papua (0.9%).

This regional gap reflects structural challenges in the development of a more equitable creative economy ecosystem, especially related to the availability of digital infrastructure, access to education, and market connectivity. However, rapid growth in several provinces outside Java during 2020-2021 is a positive signal for the equitable distribution of the creative economy in the future.

Provinces such as North Sumatra and South Sulawesi showed consistent creative workforce growth throughout 2018-2021, indicating a more stable and sustainable

1886



ecosystem development. On the other hand, provinces such as Bengkulu that experience sharp fluctuations need more strategic and measurable policy interventions to strengthen the local creative economy ecosystem.

Overall, data on Indonesia's creative economy workforce for the 2018-2021 period shows that this sector is not only able to survive in the midst of a crisis, but also has great potential to become a major pillar in future national economic development. By strengthening supporting infrastructure, expanding market access, and increasing the capacity of creative human resources across regions, Indonesia can foster the growth of a more inclusive, sustainable, and globally competitive creative economy (Kaimuddin, 2020).

METHOD

Types and Data Sources

Table 1. Type and Data Sources

Variable	Unit	Era	Data Source
Creative Economy Workforce	Thousands of Souls	Annual	Ministry of Tourism and Creative Economy
Average Employee Wages	Million Rupiah	Annual	Ministry of Tourism and Creative Economy
Education Level	Year	Annual	BPS
Internet Usage	Percentage	Annual	BPS

In this study, the secondary data needed includes data related to the Creative Economy Sector Workforce in Indonesia, Average Wages of Creative Economy Workers, Education Level, and Internet Use. These secondary data sources are obtained from credible and relevant agencies, namely the Central Statistics Agency (BPS) and the Ministry of Tourism and Creative Economy (Kemenparekraf).

Research Location and Time

In this study, research locations were used in 34 provinces in Indonesia, namely Aceh, North Sumatra, West Sumatra, Riau, Jambi, South Sumatra, Bengkulu, Lampung, Bangka Belitung Province, Riau Province, Dki Jakarta, West Java, Central Java, in Yogyakarta, East Java, Banten, Bali, West Nusa Tenggara, East Nusa Tenggara, West Kalimantan, Central Kalimantan, South Kalimantan, East Kalimantan, North Kalimantan,



North Sulawesi, Central Sulawesi, South Sulawesi, Southeast Sulawesi, Gorontalo, West Sulawesi, Maluku, North Maluku, West Papua, Papua. The time used in this study is 2018-2021.

Analysis Methods

Data analysis used a multiple regression model of panel data using the Stata 15 application which was used to find out whether there was an influence between the Average Wages of Creative Economy Workers (X1), Education Level (X2), Internet Use (X3), and Covid-19 (X4) on Creative Economy Workers (Y) in 34 Provinces in Indonesia.

The model of the panel data regression equation used in this study is as follows:

$$Ekraf_{it} = \beta_0 + \beta_1 Upah_{it} + \beta_2 Education_{it} + \beta_3 Internet_{it} + \beta_4 Covid19_{it} + \epsilon_{it}$$

Information:

Ekraf	: Creative Economy Workforce	(Thousands/Souls)
Wages	: Average Employee Wages	(Millions/Rupiah)
Education	: Average School Length	(Year)
Internet	: Individuals Using the Internet	(Percentage)
Covid19	: Dummy variables during the pandemic	(0 for pre-covid, 1 for pre-covid)
i	: 34 Provinces in Indonesia	
t	: Period 2018-2021	
β_0	: Constant	
$\beta_1 - \beta_4$	: Regression Coefficient	
ϵ_{it}	: Error term	

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Table 2. Descriptive Statistical Analysis Results

Variable	Obs	Mean	Std. Dev	Min	Max
Ekraf	136	12,3122	1,318995	10,07757	15,4431
Wages	136	14,47404	0,2827031	13,90544	15,34445
Education	136	8,570147	0,9335944	6,52	11,17
Internet	136	47,84993	13,24127	19,59	85,55

Source: Stata 15



Based on the results in Table 1, it can be shown that the number of data observations used for 34 provinces in Indonesia and the time period of 2018-2021 amounted to 136 observations. The explanation of the results of statistical descriptive analysis for each variable is as follows:

1. Creative Economy Workforce

The creative economy variable (ekraf) in this study refers to the number of workers working in the creative economy sector, which is then transformed into a natural logarithm because it does not pass the Normality Test. The average value of the creative economy workforce is 12.31 with a maximum value of 15.44 and a minimum value of 10.08. The standard deviation of this variable is 1.32 which indicates a moderate variation between provinces in terms of the number of workers in the creative economy sector. This indicates that the distribution of creative labor between regions is still uneven, with some provinces having a much higher concentration of labor than others.

2. Average Wages of Creative Economy Workers

The wage variable describes the average income of workers in the creative economy sector measured in units of millions of rupiah. This variable is transformed into a natural logarithm with the aim of reducing the difference in scale between variables and cross sections whose numbers are too different so as not to experience biased results. The average value (mean) of workers' wages is 14.47404, with the highest value reaching 15.34445 and the lowest value of 13.90544. Meanwhile, the standard deviation value of this variable is 0.2827031, which indicates that there is a fairly low variation between regions.

3. Education Level

The education level variable is measured by the average index of school length (in units of years) as a representation of the education level of the population in each region. The national average of this variable was recorded at 8.57 years, with a maximum value of 11.17 years and a minimum value of 6.52 years. The standard deviation value of 0.93 indicates that the variation between regions is relatively low, although there are still areas with education levels that are far below the national average.

4. Internet Usage

This variable describes the percentage of individuals in a region who use the internet, which is an important indicator in supporting the development of the creative economy, especially digital-based. The average internet usage was

1889



recorded at 47.85%, with the highest score of 85.55% and the lowest score of 19.59%. The standard deviation value of 13.24 indicates that there is considerable variation between regions in terms of internet penetration.

Normality Test

Table 3. Normality Test

Variable	Skewness	Kurtosis
Ekraf	0.521374685	-0.175703657
Wages	0.826821046	0.429999011
Education	0,309445615	0,154435765
Internet	0,260570772	-0,193551263

Source: Ms. Excel

The normality test in this study was carried out using the Skewness-Kurtosis method, where a variable is said to be normally distributed if the Skewness value is in the range of -2 to +2, and the Kurtosis value is in the range of -3 to +3. Based on the values in Table 8, it shows that the variables of Average Wages of Creative Economy Workers, Education Level, and Internet Use are distributed normally, while the variables of Creative Economy Labor are not distributed normally, so the Creative Economy Labor variable must be transformed into a natural logarithm (ln) which then the result has met the Skewness-Kurtosis value to be declared normally distributed.

Multicollinearity Test

Table 4. Multicollinearity Test

Variable	Vivid	1/Vivi
Education	1,52	0,656931
Internet	1,51	0,662732
Wages	1,14	0,873569
Bright Red	1,39	

Source: Stata 15

Based on the results of the multicollinearity test in Table 3, results were obtained showing that all independent variables, namely education, internet, and wages, had a VIF (Variance Inflation Factor) value below 10.00 with values of 1.52, 1.51, and 1.14,

1890



respectively. In addition, the tolerance value ($1/VIF$) for the three variables was above 0.10, namely 0.656, 0.662, and 0.873. The mean VIF of 1.39 is also greater than $\alpha = 0.05$ but still far below the critical threshold of 10. These results show that there are no symptoms of multicollinearity among the free variables in this study because the VIF values are still within acceptable tolerance limits, so each free variable does not have a high correlation with each other and is suitable for use in subsequent regression analysis.

Heteroscedasticity Test and Autocorrelation Test

In regression analysis, the presence of heteroscedasticity and autocorrelation did not cause parameter estimation to be biased or inconsistent. However, the presence of these two problems can result in inaccurate calculations of standard errors, thus affecting the validity of statistical tests such as t-tests and F-tests. According to Gujarati & Porter (2009) they emphasize that although the Ordinary Least Squares (OLS) estimate remains unbiased and consistent under the conditions of heteroscedasticity and autocorrelation, the variance of the estimate is no longer efficient, which means that the estimate is no longer the Best Linear Unbiased Estimator (BLUE).

To overcome this problem, one of the commonly used approaches is the application of robust standard errors. This method allows for the acquisition of standard error estimates that remain valid despite violations of classical assumptions, including heteroscedasticity and mild autocorrelation. In the context of time series data and panel data, the use of robust standard errors is essential to ensure the accuracy of statistical inferences. Baum et al. (2011) Explains that in panel data analysis, the application of cluster-robust standard errors can overcome the problems of heteroscedasticity and autocorrelation, as well as produce more reliable estimates.

In practice, statistical software such as STATA provides the option to apply robust standard errors by adding the keyword "robust" to the regression command. This makes it easier for researchers to overcome the problems of heteroscedasticity and autocorrelation without having to perform complex data transformations

Panel Data Model Selection Test

Chow Test and Hausman Test

Table 5. Chow Test Results

Prob>F	0,0000
--------	--------

Source: Stata 15



In this study, the Chow Test was used to select a model between the Fixed Effect Model (FEM) and the Common Effect Model (CEM). Based on the results of Table 10, it is shown that the Prob>F value of the chow test is 0.000 which is smaller than 0.05 so that the model selected in this test is the Fixed Effect Model (FEM).

Table 6. Hausman Test Results

Test Type	Prob>chi2
Hausman Test	0,0422

Source: Stata 15

In this study, the Hausman Test was used to select a model between the Fixed Effect Model (FEM) and the Random Effect Model (REM). Based on the results of Table 11, it is shown that the Prob>chi2 value of the Hausman Test is 0.0422 which is smaller than 0.05 so that the right model for this study is the Fixed Effect Model (FEM).

Panel Data Regression Results with Fixed Effect Model (FEM)

Table 7. FEM Calculation Results

Variable	Coefficient	Robust Std. Error	Statistics	Prob.
C	11,35376	1,679078	6,76	0,000
Wages	-0,2048659	0,1114892	-1,84	0,075
Education	0,4167612	0,1267863	3,29	0,002
Internet	0,0089696	0,0015494	5,79	0,000
Covid	-0,1544554	0,0214748	-7,19	0,000

Source: Stata 15

Based on Table 12 above, the results of the panel data equation model using the Fixed Effect Model (FEM) are as follows:

$$\text{Ekrafit} = 11.35376 - 0.2048659\text{It wages} + 0.4167612\text{Educationit} + 0.0089696\text{Internetit} - 0.1544554 \text{ Covidit} + \varepsilon_{it}$$

From the results of the regression with the FEM model, it can be explained that the constant (intersep) of 11.35376 shows the log average value of the number of creative economy workers (in thousands of people) when all independent variables (wages, education, internet use, and covid) are zero. Here is the interpretation of each independent variable:



1. The regression coefficient of -0.2048659 with a probability value of $0.075 > 0.05$ shows that the wage variable has a negative but not statistically significant effect at the level of 0.05 on the number of workers in the creative economy sector. This means that every wage increase of 1 million rupiah will reduce the number of creative economy workers by around 0.20% of the creative economy workforce, assuming that other variables are constant even though the increase does not have a real impact on the creative economy workforce assuming *ceteris paribus*.
2. The coefficient of 0.4167612 with a probability value of $0.002 < 0.05$ shows that education has a positive and significant effect on the workforce in the creative economy sector. This means that every increase in the average length of school by 1 year will increase the number of workers in the creative economy sector by 0.41%, assuming other variables are constant. This indicates that education is an important factor in encouraging labor participation in the creative economy sector.
3. The coefficient of 0.0089696 and the probability value of $0.000 < 0.05$ indicate a positive and very significant relationship between internet use and the number of creative economy workers. This means that every 1% increase in the number of people using the internet will increase the number of workers in this sector by 0.0089%.
4. The coefficient of -0.1544554 with a probability value of $0.000 < 0.05$ shows that the Covid-19 pandemic has had a negative and significant impact on the number of creative economy workers. In other words, during the pandemic, the number of workers in this sector decreased by an average of 0.15% compared to before the pandemic, assuming other variables are constant.

Individual Effect Results 34 Provinces

In panel data regression analysis using the Fixed Effect Model (FEM) approach, individual effect is understood as the result of the sum of the general regression constant (intersep) with the coefficient of the special effect of each individual or entity, such as a province or company. This reflects that each unit of analysis has unique characteristics that affect dependent variables and cannot be directly observed by the model. In other words, an individual effect is an interception value specific to each individual formed from the general constant of the model plus the value of the deviation or fixed effect (α_i) resulting from the difference in characteristics between entities. This approach allows the model to capture heterogeneity between observation units that do not change over time. Therefore, in the output of the FEM analysis, the individual effect for a province, for

1893

IJEBIR, Volume 04 Issue 04, 2025



Copyright at authors some right reserved this work is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/).

example, is calculated by adding the value of the regression constant with the coefficient of the effect of that province, thus resulting in a special intercept that represents the structural influence of that province on the dependent variable. This opinion is in line with the theory put forward by Gujarati (2009) and Wooldridge (2010), who explain that in a fixed-effect model, the difference in interception values between units reflects differences in characteristics that are not observed and constant throughout the observation period.

Based on the individual effect results, Central Java has the highest individual effect value of 14.52188. This shows that Central Java has a very strong structure in supporting the absorption of labor in the creative economy sector. As a province with a high wealth of culture and crafts, such as batik (Pekalongan and Surakarta City), carving (Jepara), to culinary specialties that have gone global, Central Java has proven success in creating a vibrant creative economy ecosystem. According to data from the Creative Economy Agency (2019), the craft, fashion, and culinary subsectors dominate the contribution of creative economy GDP in this province, supported by a large number of market-oriented MSME actors.

As a form of strengthening the capacity of the creative workforce in Central Java, local governments are advised to optimize the "Indonesian Creative Appreciation (AKI)" program initiated by the Ministry of Tourism and Creative Economy (Kemenparekraf). This program has been running since 2021 and focuses on developing creative economy actors through training, mentoring, exhibitions, and access to capital. Central Java is one of the provinces that routinely becomes the location for the implementation of AKI, such as in 2023 which will be held in Semarang. This program can be further directed to reach small and micro-scale creative actors who are still untouched by digitalization. Therefore, the focused advice is to encourage the expansion of AKI digital marketing training in second-tier cities such as Rembang, Pati, and Kebumen, so that the digital transformation of the creative sector is not only concentrated in big cities.

Through this approach, the creative workforce in Central Java will not only grow in quantity, but also increase in quality, especially in the face of the challenges of the digital economy and increasingly complex global competition. By encouraging competency-based certification, the province can maintain its position as a strong and highly competitive creative economy center.

Then, North Kalimantan occupies the lowest position in terms of individual effect, with a value of 9.0414. This low figure reflects the lack of a solid creative economy structural foundation in the region. Factors such as limited digital infrastructure, low access to creative skills-based training, and lack of supporting ecosystems such as

1894



business incubators or co-working spaces are the main obstacles. Based on a report by the Central Statistics Agency (2023), North Kalimantan is one of the provinces with household internet penetration that is still below the national average, which is only around 59.5%. In addition, according to a study from the Ministry of Communication and Informatics and UNDP Indonesia (2022), digital literacy inequality in areas outside Java is still an urgent issue, including in North Kalimantan.

As a real and programmatic solution, North Kalimantan is advised to actively participate in the "Indonesian Creative Regency/City (KaTa) Development" program which is also implemented by the Indonesian Ministry of Tourism and Creative Economy. This program aims to form a creative economy ecosystem based on local potential and has been running since 2020 in various regions, including cities/regencies outside Java. In 2023, the Ministry of Tourism and Creative Economy has implemented this program in 40 districts/cities, but North Kalimantan has not yet become one of the main regional targets. Therefore, the focused advice for the local governments of North Kalimantan, especially Tarakan City and Bulungan Regency, is to volunteer as part of the Indonesian Creative Village network, as well as to map leading sub-sectors such as rattan-based crafts and typical Dayak or Tidung cuisine. With the inclusion of North Kalimantan in this network, local creative economy actors will gain access to business management training, strengthening local product identity, and connections to national markets.

Statistical Test

T test

Table 8. Statistical T-Test

Variable	T-Count	T-Table	Prob.	Conclusion
Wages	-1,84	1,97810	0,075	Receiving H_0
Education	3,29	1,97810	0,002	Reject H_0
Internet	5,79	1,97810	0,000	Reject H_0
Covid	-7,19	1,97810	0,000	Reject H_0

Source: Stata 15

In this study, the statistical T test used a significance level of 95% or $\alpha = 0.05$ with df calculated using the formula $df = n - K$ where n is the number of samples and K is the



number of independent and bound variables in the study. In this study, $df = 136 - 4 = 132$ which if applied to the value of the T-table is 1.97810 which will later be used to compare it with the T-calculation.

1. The results of the T Test show that the T_{cal} value for the Wage variable is -1.84 which is absolutely smaller than the T_{table} value which is -1.97810. That is, H_0 is accepted so that it can be said that wages have a negative and insignificant influence on the creative economy workforce. Thus, the first hypothesis in this study is rejected.
2. The results of the T Test show that the T_{cal} value for the Education variable is 3.29 which is greater than the T_{table} value which is 1.97810. This means that H_0 is rejected so that it can be said that education has a positive and significant effect on the creative economy workforce. Thus, the second hypothesis in this study is accepted.
3. The results of the T test showed that the T_{cal} value for the Internet variable was 5.79 which was greater than the T_{table} value of 1.97810. This means that H_0 is rejected so that it can be said that the use of the internet has a positive and significant effect on the creative economy workforce. Thus, the third hypothesis in this study is accepted.
4. The results of the T test show that the T_{cal} value for the Covid variable is -7.19 which is absolutely greater than the T_{table} value which is -1.97810. This means that H_0 is rejected so that it can be said that there is a significant difference in the creative economy workforce between before and during the Covid-19 pandemic. Thus, the fourth hypothesis in this study is accepted.

F test

Table 9. Statistical F Test

F-count	F-Table	Prob.	Conclusion
40,79	2,67	0,000	Reject H_0

Source: Stata 15

In this study, the statistical F test used a significance level of 95% or $\alpha = 0.05$ using df_1 and df_2 calculations. In df_1 using the formula $df_1 = K - 1$ and df_2 using the formula $df_2 = n - K$. In this study, the result of $df_1 = 4 - 1 = 3$ and $df_2 = 136 - 4 = 132$ applied to the F_{table} value is 2.67 which will later be used to compare it with F_{calculus}.



In Table 17, it is shown that the F-Test in this study shows that the Fcal value of 41.72 is greater than the Ftable value of 2.67 with a probability of $0.000 < 0.05$, meaning that H_0 is rejected so that it can be concluded that together, the independent variables in this study have a significant influence on the bound variable or creative economy labor.

Coefficient of Determination (R²)

Based on the regression results in this study, an R-squared within value of 0.6420 was obtained, which shows that around 64.20% of the variation in the Creative Economy Labor variable can be explained by the variation of the three independent variables used in the model, namely Average Worker Wage, Education Level, and Internet Use in each group unit (id) during the observed time period. Meanwhile, the remaining 35.80% were influenced by other factors that were not included in this regression model.

Stuttgart Wooldridge (2020), the R^2 value provides an understanding of how well independent variables in the model can predict or explain dependent variables. But D. N. Gujarati (2003) explains that a high R-squared value does not necessarily mean that the model is good, and a low R-squared value does not mean that the model is bad. R-squared only indicates the proportion of variations in dependent variables that can be explained by independent variables, but does not indicate whether the estimated coefficient is meaningful or whether the model meets its specifications.

RESULTS OF THE ANALYSIS

The Effect of Average Wages of Creative Economy Workers on the Creative Economy Workforce in Indonesia.

The results of the study show that the average wages of workers do not have a significant effect on the number of workers in the creative economy sector in Indonesia during the period 2018–2021. This can be seen from the value of the regression coefficient of -0.2048659 with a probability value of $0.075 > 0.05$ which means that it is statistically insignificant. Econometrically, although wage increases are associated with a decrease in the number of workers, this relationship cannot be said to be strong.

These findings show that the increase in average wages has not been able to encourage a consistent increase in the number of workers in the creative economy sector. This means that every wage increase of 1 million rupiah is actually associated with a decrease in the number of workers by 0.20%, but this relationship is not significant. The results of this study are in line with research conducted by Rahmatin et al. (2024) that in his research, the minimum wage has a negative effect on the workforce but is not

1897



significant, which is the same as the results of this study. Then the results of this research are also in line with the research conducted by Marsudiarso & Susanto (2022) that wages/salaries do not have a significant effect on the creative economy workforce in the craft subsector.

The Influence of Education Level on the Creative Economy Workforce in Indonesia.

The results of the study using the Fixed Effect Model (FEM) revealed that education, represented through the average length of schooling, has a strong and significant relationship with the increase in the number of workers in the creative economy sector in Indonesia. This is shown by a positive coefficient of 0.4167612 and is also significant ($p\text{-value} = 0.002 < 0.05$) which means that every additional year of education can encourage an increase in the creative economy workforce by 0.41%.

The results of this study are also in line with the research conducted by Rahmatin et al. (2024) who conduct research and get results that education has a positive and significant influence on the workforce. Then, these results are also in line with the research Asmara et al. (2024) that education has a positive and significant effect on the workforce.

The Influence of Internet Use on the Creative Economy Workforce in Indonesia.

The results of the analysis with the Fixed Effect Model (FEM) show that the use of the internet has a positive and significant influence on the number of creative economy workers in Indonesia during the 2018–2021 period. A coefficient of 0.0089696 with a probability value of $0.000 < 0.05$ shows that every 1% increase in internet users increases the creative economy workforce by 0.0089%. This indicates that the development of information technology, especially access to the internet, plays an important role in opening up new job opportunities in the economic sector based on creativity and innovation.

The widespread use of the internet allows creative economy actors to connect with global markets, expand business networks, and increase work productivity through the use of design applications, digital promotions, and e-commerce platforms. This digitalization trend has given rise to a new wave of self-employed workers, freelancers, and young entrepreneurs in the creative economy sector who are utilizing technology to develop businesses based on digital content, design, music, and modern culinary (Radjamin & Hermawan, 2024).



The results of this study are in line with the research conducted by Radjamin & Hermawan (2024) that technology has a positive and significant influence on the workforce. Then, there is also research conducted by Davani & Sulistyaningrum (2023) that in her research, technology can increase the female workforce in Indonesia.

The Influence of Covid-19 on the Creative Economy Workforce in Indonesia.

The regression results show that *the COVID-19* variable has a negative and significant effect on the number of creative economy workers in Indonesia during the 2018–2021 period. The value of the coefficient of -0.1544554 with a probability of $0.000 < 0.05$ indicates that the pandemic has had a real and strong impact on the decline in the number of workers in this sector. This means that every one unit increase in the *COVID-19 impact index* is associated with a 15.44% decrease in the creative economy workforce.

This research reflects that the pandemic is an external factor that greatly affects the dynamics of the labor market in the creative economy sector. Restrictions on mobility, decreased demand, and the cessation of various economic activities such as concerts, exhibitions, art productions, and other public events have caused many creative businesses to lose their income drastically. This has a direct impact on reducing working hours, terminating employment, and closing businesses permanently, especially in subsectors that rely on physical interaction such as culinary, event organizers, and performing arts. The results of this study are in line with the research conducted by Safitri et al. (2023) which states the results that *Covid-19* have a negative influence on the workforce.

CONCLUSION

1. Average Wages of Creative Economy Workers show a negative influence on Creative Economy Workforce. This can be explained in terms of the cost burden that must be borne by business actors, especially MSMEs who dominate this sector. Wage increases without an increase in productivity can cause business actors to limit labor recruitment in order to maintain business sustainability.
2. Education level makes a significant contribution in encouraging the absorption of Creative Economy Labor. The higher the level of education of the community, the greater their opportunities to engage in economic activities based on ideas, innovations, and skills. Good education provides technical and non-technical



skills such as critical thinking, design, digital literacy, and business management that are urgently needed in the world of creative work.

3. The results of the analysis show that the use of the internet has a positive and significant influence on the number of workers in the creative economy sector. Wide internet access allows creative businesses to reach a larger market, promote products online, and build cross-regional and global collaboration networks.
4. The COVID-19 pandemic has had a significant and negative impact on the number of workers in the creative economy sector. Social restrictions, the closure of business premises, and declining public demand for creative products have caused many businesses to go out of business or reduce the number of employees. Creative economy activities that were previously direct and interactive have become very limited, especially in subsectors such as performing arts, culinary, and creative tourism.

REFERENCES

- Asmara, G. D., Saleh, R., & Asmara, G. J. (2024). *The Effect of Minimum Wage on Labor Absorption in Indonesia in 2015-2020*. *Journal of Advances in Accounting, Economics, and Management*, 1(3), 1–11.
- Baum, C. F., Nichols, A., & Schaffer, M. E. (2011). *Evaluating one-way and two-way cluster-robust covariance matrix estimates*.
- Davani, I., & Sulistyaningrum, E. (2023). *The Effect of Digitalization on the Absorption of Indonesian Women's Labor*. *Indonesian Journal of Economics*, 11(3), 301–316.
- Gujarati, D. N. (2003). *Basic Econometrics 4th Edition*. In *The Economic Journal* (Vol. 82, Issue 326).
- Gujarati, D. N., & Porter, D. C. (2009). *Basic Econometrics, 5th Ed*. In N. Fox (Ed.), *Introductory Econometrics: A Practical Approach* (5th ed.). Douglas Reiner.
- Kaimuddin, A. (2020). *The Role of the Creative Economy in Overcoming Labor Force Problems*. *Journal of Management Sciences, Tadulako University (JIMUT)*, 5(1), 1–9.
- Marsudiarso, J., & Susanto, A. A. (2022). *ANALYSIS OF THE ABSORPTION OF CREATIVE ECONOMY LABOR IN THE CRAFT SUBSECTOR*. *Dynamics of Crafts and Batik: A Scientific Magazine*, 39(1), 87–100.
- Radjamin, I. P., & Hermawan, J. (2024). *The relationship between internet users, gross domestic product per capita and employment rate in the perspective of e-*

1900



- commerce. *Scientific Journal of Management, Economics, & Accounting (MEA)*, 8(2), 160–169.
- Rahmatin, N. I., Solekha, S. D. I., Putri, I. K., Nilasari, A., & Arisetyawan, K. (2024). The Effect of Wage, Economic Growth, and Education on the Absorption of Labor in Banten Nur Province. *INDEPENDENT: Journal Of Economics*, 4(2), 120–130.
- Rahmi, A. N. (2018). The development of the creative economy industry and its influence on the economy in Indonesia. *National Seminar on Information Systems (SENASIF)*, 2(1), 1386–1395.
- Safitri, S., Mukhtar, S., & Sebayang, K. D. A. (2023). THE EFFECT OF ECONOMIC GROWTH, PROVINCIAL MINIMUM WAGE, AND INVESTMENT ON LABOR ABSORPTION IN DKI JAKARTA PROVINCE IN 2018-2022. *Journal of Economics, Office, and Accounting Education*, 4(2), 52–61.
- Suciu, M.-C. (2008). *The Creative Economy*. Research Gate.
- Wooldridge, J. M. (2020). *Introductory Econometrics: A modern approach*, 5th Ed. In Cengage Learning (5th ed.). Cengage Learning.

