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The Creative Economy in Java and Its Effects on Community Welfare

¹, Anthonius Februar Primahadi, ², Cicih Ratnasih, ³, Yolanda, ⁴, Prista Tarigan ¹, Borobudur University Doctoral Program Student, ², Universitas Borobudur ³, Universitas Borobudur, ⁴, Tama Jagakarsa University

ABSTRACT: When a country's image and character are shaped by renewable resources and innovation and creativity are developed as a competitive advantage, the creative economy has the potential to generate significant economic growth. The large role of the creative economy, this research tries to examine the factors that influence the creative economy and its impact on community welfare as proxied by the human development index. This research uses panel data, namely time series (2005-2020) and cross section data (6 provinces on the island of Java). Estimating the relationship between factors that influence the creative economy and community welfare using panel regression models. The selection of the best panel regression model was carried out using the Chow and Hausman tests with the best model results being the Fixed Effect Model. The research findings state that the determining factors of the creative economy (number of creative economy sub-sector companies, creative industry exports, information technology, intellectual property rights, bank credit financing for Micro, Small, and Medium-Sized Enterprises) have a positive and significant effect on the creative economy both simultaneously and partially, and the development of the creative economy has a positive and significant impact on community welfare as proxied by the Human Development Index. Another result of this research is that the province predicted to have high creative economic potential is DKI Jakarta and the province predicted to have high social welfare potential is DKI Jakarta. The findings indicate that the development of the creative economy still requires strategic policies to encourage creative economic growth from regional and central governments.

KEYWORDS: Creative Economy, Number of Creative Economy sub-sector Companies, Creative industry exports, information technology, Intellectual Property Rights, bank credit financing for Micro, Small, and Medium-Sized Enterprises, Human Development Index.

I. INTRODUCTION

The process of using production factors to produce output through production and distribution processes with the aim of meeting human needs is called economic activity. These economic activities continue to develop in accordance with developments in human needs, state economic activities and technology. According to the Indonesian Ministry of Trade (2008), the pattern of economic development can also be seen in Figure 1.



Source: Republic of Indonesia Ministry of Trade, 2008 Figure 1. Shifting World Economic Orientation

Based on Figure 1 above, the pattern of economic development in Indonesia starts from the agricultural economy. Indonesia's agricultural economy experienced ups and downs which were closely related to macroeconomic policies and economic development strategies in general and in the mid-1980s, Indonesia succeeded in becoming food self-sufficient. The success of the agricultural economic pattern has led to the stage of the industrial economic pattern. The industrial economic pattern developed rapidly in the mid-20th century or the 1950s, after there was an increase in large-scale modern manufacturing companies in Europe and the United States. In Indonesia, the development of the industrial economy went through the industrial revolution 1.0 to 4.0, where in the industrial revolution 4.0 industrial development has changed to the use of digital and the internet and in this condition, it is said to be the information economy phase. In the information economy phase, there are many new discoveries in the fields of technology, information, and communication. In this phase, all economic activities use technology, information, and communication and in this phase, distance is no longer a problem. The fourth phase of economic development is the creative economy. Creative economy according to the United Nations Conference on Trade and Development (UNCTAD) is an economic concept that carries out development based on an asset that provides or has the potential to produce economic growth to create a developing economy.

(Sung, 2015) explains the definition of the creative economy as an approach to economic operations that promote creativity, knowledge convergence, and cutting-edge scientific technology founded on coordinated learning in order to create new markets and jobs. Suryana, 2012 states, the creative economy is the process of increasing added value resulting from the exploitation of intellectual property in the form of individual creativity, skills and talents into a product that can be sold. Sementara (Auzan, Bakhtigaraeva, & Bryzgalin, 2022) stated that the creative economy is a response to digitalization and the threat of being replaced by human intelligence, climate change and globalization. This shows that the creative economy is a new economic era that intensifies information and creativity by relying on ideas and knowledge from human resources as the main production factor in economic activities. Meanwhile, according to the Indonesian Creative Economy Development Blueprint 2009-2015, the creative economy is defined as "a new era economy after the agricultural economy, industrial economy and information economy, which intensifies information and creativity by relying on people's original ideas and knowledge". Dan menurut (Londar, Lytvynchuk, Versal, Posnova, & Tereshchenko, 2020) the main factor that drives the creative economy is human resources which are influenced by the level of education and scientific progress in a country.

These creative economic activities are activities from creative industry activities. The creative industry consists of 17 industrial sub-sectors including culinary, fashion, creative, architecture, product design, interior design, music, fine arts, advertising, publishing, animated films and videos, photography, visual communication design, applications, game developers, TV and Radio, and performing arts. And according to (Fazlagić & Skikiewicz, 2019), Statistical figures show that the contribution of the creative economy to GDP in developed countries continues to increase. Attention to Indonesia's creative economy began during the era of the President of the Republic of Indonesia, Prof. Dr. Bambang Susilo Yudhoyono in 2005 and followed by (Dr. Mari Elka Pangestu) as the Indonesian Minister of Trade launched the Indonesia Design Power program. This program provides space for creative actors and industries. Creative industries according (Daubaraitė & Startienė, 2015), create jobs and wealth using personal skills, talents and creativity. Meanwhile, in 2018, Presidential Decree Number 142 concerning the National Creative Economy Development Master Plan (2018-2025) was issued, and The World Conference on Creative Economy (WCCE) or Global Conference on Creative Economy was held in Bali on November 6-8 2018 by the Indonesian government. This condition is a momentum for the creative economy in its development in the era of industrial revolution 4.0. to industrial revolution 5.0. and the use of information technology which gave birth to 21 roadmaps for the development of the global creative economy, the formation of friends of creative economy, ratification of the UN resolution on the International Year of Creative Economy for Sustainable Development, and the establishment of the Global Center of Excellence and International Cooperation for Creative Economy.

The creative economy awakens countries around the world to develop and demonstrate their existing creative potential. And Indonesia replied to this circumstance by passing Law Number 24 of 2019 about the Creative Economy in an effort to maximize the creativity of human resources based on cultural heritage, science, and technology. The enactment of Law Number 24 of 2019 and Law No. 6 concerning Job Creation enhanced the creative economy in accordance with its growth. One of the sectors that has the potential to become a source of renewable economic growth as a government solution to prevent the national economic slowdown in recent years is the creative economy, where the government demands that the creative economy be expected to remain alive in various global and local pressures. Indicators for increasing the development of the creative economy are shown by the results of research from the Indonesian Creative Economy Agency (2015), where the development of the creative economy is influenced by exports, foreign investment, the MSME tourism sector, credit distributed to MSMEs, improving the quality of human resources through information technology knowledge and skills and computers, the role of government and government spending on public spending. Meanwhile, research results from (Leksono & Santosa, 2014) explains the factors that influence creative industry income, influenced by labor, export value, import value, and the number of creative companies. And research results from (Sanny, Kartini, & Narimawati, 2016) (Sanny, Kartini, & Narimawati, 2016) states that technological innovation has an impact on the creative industry. The creative economic potential of the Republic of Indonesia cannot be underestimated, its contribution to the national Gross Regional Domestic Product (GRDP) has reached Rp. 1,211 trillion in 2019 and Rp. 1,100 trillion in 2020. Table 1 below shows how the creative economy contributes to Indonesia's GRDP:

Table 1. GDP Value Contribution of the Creative Economy to the National GDP (in Rp billions) Using Constant Prices, 2016–2020

Tahun	PDB Ekonomi	PDB Ekonomi	Kontribusi PDB Ekraf
	Nasional	Kreatif	terhadap PDB Nasional (%)
2016	9 434 613	922.590	9,77
2017	9 912 928	1.009.000	10,18
2018	10 425 397	1.105.000	10,60
2019	10 949 244	1.211.000	11,06
2020	10 722 999	1.100.000	10,26

Source: Central Statistics Agency, data processed

The table above illustrates the contribution of the creative economy to the national economy as proxied by GDP, showing an increasing trend, except that in 2020 it fell due to Covid-19 which hit the world. 2020 was the toughest year for all countries in the world, where all countries implemented lockdowns and resulted in no movement of goods and people between countries. Apart from that, economic activities have also stopped. The development of the creative economy, according to research conducted by the United Nations Conference on Trade and Development (2008 and 2010), has a significant impact on international trade and the economy of a country. And research (Piergiovanni, Carree, & Santarelli, 2012) stated that from 103 provinces in Italy for the period 2001 - 2006 it was found that industry and the creative economy had an impact on regional economic growth. While research (Wróblewski, 2014), creative industries influence regional socio-economic development and (Daubaraitè & Startienè, 2015) states that the creative industry has an impact on the national economy. Meanwhile, according to (Ausat, Al Bana, & Silvy Sondari Gadzali, 2023), four types of capital are the basis of the creative economy, namely human capital, social capital, cultural capital and institutional structural capital. From the description above, it can be concluded that the creative economy can encourage increased economic income, employment and export earnings as well as promote social inclusion, cultural diversity and human development.

Based on the description above, the dynamics of the development of the creative economy as proxied from Gross Regional Domestic Product, the results of the performance of the creative economy sub-sector, are quite interesting and contribute to national development, so this needs to be discussed. The discussion in question is what factors influence the development of the creative economy and what impact the development of the creative economy has on community welfare. The factors that influence the performance of the creative economy in this research are the number of creative industry companies, technology and information, intellectual property rights and banking credit financing for Micro, Small and Medium Enterprises. And to what extent is the performance of the creative economy on community welfare.

II. LITERATURE REVIEW

The Gross Regional Domestic Product includes revenue from the subsector of the creative economy. Regardless of whether the production factors are owned by residents or not, the gross added value of all goods and services created or produced in a country's domestic territory as a result of different economic activities within a given period is known as the gross regional domestic product. (BPS, 2020). Thus, Gross regional Domestic Product in the creative economy sub-sector is the result of creative economic activity. Using the income, output, and spending approach, one may determine the Gross Regional Product value for creative economy subsectors. According to, (Auzan et al., 2022), The creative economy is a complex phenomenon and can be predicted using a combination of sectoral and cross-sectoral indicators. (Lee & Wong, 2015) states that there are core and supporting components in the creative economy, namely: (1). Businesses and individuals that create cultural products are part of the Creative Cluster. (2). Creative Workers, or thinkers and doers with specialized training in creative and cultural abilities that promote industrial leadership that transcends cultural and artistic domains. (3). A creative community is a region where businesses, organizations, and creative labor are concentrated. The factors that influence the development of regional Gross Domestic Product of the creative economy were researched by (Leksono & Santosa, 2014), (Burhanudin, Rindayati, & Anggraeni, 2020), (Hrysenko, Pryiatelchuk, & Shvorak, 2022) dan (Wardana et al., 2023).Micro, Small, and Medium-Sized Enterprises (MSMEs) are considered a sector that can survive the shocks of the economic crisis. According to (Tambunan, 2013), Micro, Small, and Medium-Sized Enterprises (MSMEs) are independent, profitable business units operated by people or companies across all economic sectors. Meanwhile (Nicolescu, 2009), MSME performance is greatly influenced by internal and external factors. External factors include the problem of globalization, very low mastery of technology and innovation. Globalization, mastery of technology and innovation have a big impact on the performance of micro and small MSMEs. The performance of micro and small businesses greatly influences the performance of the creative economy. The development of MSMEs has an influence on the creative economy as proven by research results from (Aditi & Pentana, 2018), Exports according to Law no. 10 of 1995 and Minister of Trade and Industry Decree Number 182/MPP/KEP/4/1998 is the activity of removing goods and services from the customs area of a country. Meanwhile (Krugman, Obstfeld, & Melitz, 2012), (Todaro & Stephen, 2004), dan (Mankiw, 2012) states that exports are all purchasing activities by foreign parties in the form of goods and services from a country so as to generate foreign exchange for the selling country. Meanwhile, according to (Yolanda, 2017a), Export activities are motivated by excess supply and excess demand in one country compared to other countries. Besides that, exports are an indicator of a country's economic growth and high export performance results in higher aggregate expenditure, and this stimulates a country's economic growth. Research results from (Aziz, Alsaggaf, & Khan, 2021), Diversifying exports of non-oil and gas products is a good strategy to encourage economic growth. Other research which states that exports can encourage economic growth is (Kollie, 2020), (Temiz Dinç & Gökmen, 2019), (Jetter, 2017), (Zhu & Kotz, 2011) dan (Sanjuán-López & Dawson, 2010).

Information technology according to (Williams & Sawyer, 1990) is a technology that combines computing (computers) with high-speed communications lines that carry data, voice, and video. And (Laudon & Laudon, 2015) states that information technology is one of the tools used by managers to be able to overcome changes that occur where changes in information have been previously processed and stored on computers. The impact of using information technology can facilitate human activities so that they are efficient and effective. Besides that, advances in information technology have caused many structural changes in the economy, globalization, and the expansion of trade, which has led to capital flows and increased availability of information. According to (Angelia, Febri, 2020), Information and communication technology (ICT) has a positive effect on the performance of the creative economy. Another researcher who describes the benefits of using information technology on the economy is (Farhadi, Ismail, & Fooladi, 2012), (Sanny et al., 2016), (Niebel, 2018), (Bahrini & Qaffas, 2019) and (Kusairi, Wong, Wahyuningtyas, & Sukemi, 2023).

Intellectual Property Rights are needed in economic development and especially in the creative economy, this is to obtain legal certainty and protection for the ideas/thoughts/creativity they produce. By obtaining Intellectual Property Rights for businesspeople, the ideas/ideas/thoughts/creativity they produce are protected and cannot be imitated by others. However, the problem that often arises is the process of registering intellectual property rights, which often takes a long time and requires a complicated process. According to (Dong, Zhu, & Hu, 2015), Intellectual Property Rights (positive impact on the agglomeration of creative industries. Research that discusses the influence of intellectual property rights on economic activities is (Kolady, Spielman, & Cavalieri, 2012), (Domicián, 2014), (Gold, Morin, & Shadeed, 2019), (Nina Nurani, 2019) and (Zhou, 2021). Bank credit financing is a form of providing financial facilities provided by banks or other financial institutions to meet the financial needs of a person or company. Meanwhile, according to (M. Nur Rianto Al-Arif, 2012), financing is funding from one party to another party to support planned investments, whether carried out personally or by institutions. In other words, financing is funding issued to support investments that have been planned by a party. Forms of financing seen from their use can be divided into investment financing, working capital. Meanwhile, based on its objectives, it is financing consumption, productivity and trade. Bank credit financing plays an important role in the smooth operation of a business or as a solution to meet business capital needs. According to (Ali, Rashid, & Khan, 2014), The main obstacle to the performance of small and medium enterprises is finance and the solution is simplifying lending procedures, enforcing credit rights, and reducing credit costs. Bank credit financing has an impact on economic growth and this was stated by (Ugoani, 2013), (Sipahutar, 2016), (Owolabi & Nasiru, 2017) and (Samson Olusegun & Oluwabusayo Temitope, 2019). Research that discusses the role of bank credit financing in the creative economy is (Aparicio, Audretsch, & Urbano, 2021) which states that credit and access to communication have a significant influence on exportoriented entrepreneurship for economic growth.

The Human Development Index is an indicator for determining the success ranking of a country and can determine the level or ranking of a country in the underdeveloped, developing, and advanced categories. It is used as an indicator above because the Human Development Index can explain how the population can access the results of development in obtaining income, health, and education from a country. According to (Yolanda, 2017b), The Human Development Index figure is a benchmark for achieving quality human development both in terms of its impact on human physical conditions (health and welfare) and non-physical conditions

(education). The human development index can be influenced by several factors, one of which is the performance of the creative economy. Research results (Hung & Thanh, 2022) found that economic growth affects human development and (Chikalipah & Makina, 2019) states that economic growth has a long-term effect on human development. Meanwhile research discussing that the creative economy can influence people's welfare was researched by (Pranita, Sarjana, & Musthofa, 2022), (Nasution, 2021) and (Nobre, 2016).

III. METHODOLOGY

Data Used in the Study: This research uses time series data (2005-2020) and cross section data (6 provinces on the island of Java) originating from the Central Statistics Agency of the Republic of Indonesia. The combination of the two data above is called panel data with the analysis tool being an econometric model. The aim of using this model is to provide more information about the existence of the creative economy in supporting economic development and the factors that contribute to this development. On the other hand, the development of the creative economy has an impact on community welfare. Variables that influence the development of the creative economy which is proxied from gross regional domestic product from creative economy sub-sector activities (Y) are the number of companies in the creative economy sub-sector (X1), creative industry exports (X2), information technology (X3), Intellectual Property Rights (X4)), banking credit financing for Micro, Small and Medium Enterprises (X5). And the development of the creative economy has an impact on community welfare as proxied by the Human Development Index (Z).

Pre-estimation Diagnostics: This is done to find out whether the data used is suitable as a prediction tool. The diagnostic tools used are:

- a. Correlation is the relationship between one variable and another variable, where the aim is to identify the strength of the relationship between the two variables. To measure the strength of the relationship between variables, the multicollinearity test is used. The results of the multicollinearity test show that the correlation value between variables is between 0.0104 0.7327. This size is still below the provisions (<0.8), which according to (Ghozali, 2016) the correlation value is below 0.8, meaning that there is no multicollinearity/correlation between variables.
- b. With the use of the study variable's average (mean), standard deviation, variance, maximum, minimum, kurtosis, and skewness values, descriptive statistics give a general picture of the properties of a set of data. According to (Ghozali, 2016), the skewness value is in the range -2 and 2 and this explains that the data is normal. Based on the results of data processing with Eviews software version 10, the data was found to be normal except for the Intellectual Property Rights (IPR) variable which was indicated by a Skewness value between -2 and +2. For Kurtosis, according to (Andi Supangat, 2007), the degree of sharpness of a curve (kurtosis) is a quantity to determine the type of curve (pointy, normal, or flat) with a distribution model of the kurtosis coefficient: coefficient less than 0.263 then the distribution is platykurtic, coefficient kurtosis is equal to 0.263 then the distribution is mesokurtic and the kurtosis coefficient is more than 0.263 then the distribution is leptokurtic. And the processed results show the height of the curve from very sharp data (leptokurtic). And data variations are addressed by comparing the standard deviation value with the mean value. Data variation is low, if compared to the mean value, the standard deviation value is lower. The results of data processing for all variables obtained low data variation as indicated by standard deviation values lower than the mean value, except for Intellectual Property Rights.
- c. Classic assumption test, this test is to ensure that the regression equation used is accurate in estimation, consistent and unbiased. The estimated regression equation must produce an estimator that is BLUE (Best Linear Unbiased Estimator). The testing tools used include the Normality test, multicollinearity test, heteroscedasticity test and Autocorrelation test.

Table 2. Classic Asumsi Test

No.	Test Classical Assumptions	Result	Information	
1	Normalization test	Probability $0.460509 > \alpha = 0.05$ (greater than 0.05)	Normalized distributed data	
2	Heteroskedasity Test	Prob. Chi-Square(4) = 0.1460> α = 0.05	There is no problem of heteroskedasticity.	
3	Autocorrelation Test	Prob. Chi-Square(2)= 0.6405> α = 0.05.	No autocorrelation problems occur.	

Source: Processed by Eviews version 10

Based on the table above, it canbe seen that the regression equation that is formed will have accuracy in estimation and is not biased because the data is normally distributed and there are no heteroscedasticity or autocorrelation problems.

Panel data models and determining the best model: Panel data regression consists of: Regression analysis using a least squares method is done with the Common Effect Model (CEM), which integrates cross section and time series data. In panel data regression, the fixed effect model (FEM) can be estimated with the least squares dummy technique. Third, generalized least squares are used to estimate parameters in the Random Effect Model (REM). Determining the best model was carried out using the Chow test (Fixed Effect Model VS Common Effect Model), followed by the Hausman test (Fixed Effect Model VS Random Effect Model) and the Breusch Pagan – Lagrange Multiplier test (Common Effect Model VS Random Effect Model) (Gujarati & Porther, 2015). The Breusch Pagan – Lagrange Multiplier test is carried out if the results of the Chow test and the Hausman test are different.

General Model Description: Linear regression models from panel data use cross section and time series data.

Cross section data regression model.

$$\mathbf{Y}_{i} = \boldsymbol{\alpha} + \boldsymbol{\beta} \mathbf{X}_{i} + \boldsymbol{\varepsilon}_{i}; i = 1, 2, ..., N,$$
 N: the amount of cross section data (1)

- Model with time series data.

$$\mathbf{Y}_{t} = \boldsymbol{\alpha} + \boldsymbol{\beta} \mathbf{X}_{t} + \boldsymbol{\varepsilon}_{t}; t = 1, 2, ..., T,$$
 T: lots of info from time series (2)

Panel data regression model.

$$\mathbf{Y}_{it} = \alpha + \beta \, \mathbf{X}_{it} + \epsilon_{it}; \, i = 1, 2, ..., N; \, t = 1, 2, ..., T,$$
 (3)

N T = a lot of observations = the duration <math>N x T = lots of panel data

To ascertain the direction and degree of the independent variable's influence on the dependent variable, utilize the aforementioned linear regression analysis. (Ghozali, 2018). And the model formed in this research is: **Model 1:**

$$Log \ddot{Y} = \alpha + \beta_1 Log X_1 + \beta_2 Log X_2 + \beta_3 Log X_3 + \beta_4 Log X_4 + \beta_5 Log X_5 + \epsilon_{it}$$

Model 2:

$$Log Z = \alpha + \beta Log Y + \epsilon_{it}$$

Hypothesis test: Hypothesis testing is carried out simultaneously and partially. The simultaneous test (F Test) is tested together, which according to (Gujarati, 2013) aims to determine the effect of the independent variable on the dependent variable together. The test uses the F test with a confidence level of 95% and an error rate (a) of 5% and degree of freedom (df1) = k-1, degree of freedom (df2) = n-k or you can also use the p-value compared to the significance level (α) of 5%. If the p-value < α = 5% it indicates that the dependent variable is significantly impacted by the independent variable, and vice versa. (Gujarati & Porther, 2015). Meanwhile, partial hypothesis testing (t test) is to test the level of significance of the independent variable on the dependent variable (Gujarati, 2013). The basis for testing regression results is carried out with a confidence level of 95% or with a significance level of 5% (α = 0.05) with the criteria: if Ha is rejected while H₀ is accepted when the t test's significance value is greater than 0.05. This indicates that the independent variable and the dependent variable are unaffected by one another. Meanwhile, if the significance value of the t test is <0.05 then H₀ is rejected and Ha is accepted. This means that there is an influence between the independent variable and the dependent variable. (Ghozali, 2016).

Coefficient of determination (R2). Testing the coefficient of determination (R2) according to (Imam Ghozali, 2016) This was done to measure the model's ability to explain how the influence of independent variables

simultaneously affects the dependent variable which can be indicated by the adjusted R value. The value of the coefficient of determination is between 0 and 1. Meanwhile (Chin, 1998) believes that the R-Square value is categorized as strong (R2>0.67), moderate (0.67 < R2 < 0.33) and weak (0.33 < R2 < 0.19).

IV. RESULTS AND DISCUSSION

The island of Java geographically borders the Java Sea to the north, the Indian Ocean to the south, the Bali Strait to the east and the Sunda Strait to the west. Meanwhile, astronomically it is located between 113°48′10″ - 113°48′26″ East Longitude and 7°50′10″ - 7°56′41″ South Latitude. The island of Java is divided into 6 provinces, namely Banten, DKI Jakarta, West Java, Central Java, DI Yogyakarta and East Java. The description of the island of Java is as follows:



Figure 2. The island of Java

Java Island is the region that contributes the largest GDP in Indonesia. This can be seen from the contribution of Java Island to Indonesia's GDP which is always increasing and is above 50 percent (2011-2017) and in the second quarter of 2023 the contribution will be 57 percent. This condition shows that economic growth is much better than other islands. Besides, the large contribution of Gross Regional Domestic Product to the creative economy over the last five years has been above 10 percent. This contribution is influenced by internal and external factors. In this research, the Gross Regional Domestic Product of the creative economy is influenced by the number of companies operating in the creative economy sub-sector, exports of creative industry products, information technology, intellectual property rights, credit value for micro, small and medium businesses. And the development of the creative economy has an impact on community welfare as proxied by the Human Development Index. From this, two models were formed in this research, namely: model I and model II.

Model I explains the relationship between the number of companies in the creative economy sub-sector (X1), creative industry exports (X2), information technology (X3), intellectual property rights (X4), banking credit financing for micro, small and medium enterprises (X5). And model II explains the impact of the creative economy on community welfare (Human Development Index). Based on the panel data model and the results of selecting the best model through the Chow (common effect model versus fixed effect model) and Hausman (fixed effect model versus random effect model) tests, the best model for the two tests was obtained, namely the fixed effect model I and model II. Table 2 shows the results of the best panel model as follows:

	Model 1 Fixed Effects Model			Model II Fixed Effects Model		
Variable	Coeff	SE	Prob.	Coeff	SE	Prob.
	Log Y			Log Z		
С	10.2887	3.5083	0.0043	8.6104	2.9191	0.0041
Log X ₁	0.1866	0.0338	0.0000			
$\text{Log } X_2$	0.4081	0.1061	0.0002			
Log X3	0.2232	0.0760	0.0043			
Log X_4	0.0329	0.0151	0.0320			
Log X ₅	0.5153	0.1445	0.0006			
Log Y				3.0134	0.6822	0.0000
Fixed Effects (Cross)						
_JABARC			0.517372			0.704034
_DKIC	0.934529			0.819372		

Table 3. Fixed Effect Models for the 2005-2020 Period

_BANTENC	-0.287458	-0.367852
_JATENGC	-0.165130	0.046882
_JOGYAC	-1.359498	-1.832052
_JATIMC	0.360185	0.629615
R-squared	0.891063	0.868107
Adjusted R-squared	0.890011	0.865957
F-statistic	942.5686	450.2630
Prob(F-statistic)	0.000000	0.000000
Dw Stat	1.716311	1.713084

Source: Processed by Eviews version 10

Based on table 2 above, the statistical test for model I explains that all variables have a positive and significant effect on the creative economy, both simultaneously and partially. This shows that there is a positive relationship between the independent variable and the dependent variable. explains that increasing the independent variables used in this research will improve the performance of the creative economy. The independent variable with the most dominant influence on the creative economy is bank credit financing for Micro, Small and Medium Enterprises. The large role of bank credit financing in the potential development of Micro, Small and Medium Enterprises (MSMEs) in Indonesia to encourage the development of the creative economy is regulated in Bank Indonesia regulations Number 14/22/PBI/2012. Meanwhile, the National Planning and Development Agency (Bappenas) projects credit for MSMEs at between 23 percent and 24 percent, but this projection is still far from that of Malaysia and Thailand. The regression equation from model I is as follows:

 $Log \ddot{Y} = 10.2887 + 0.1866 Log X_1 + 0.4081 Log X_2 + 0.2232 Log X_3 + 0.0329 Log X_4 + 0.5153 Log X_5$

The multiple linear regression equation from model 1 describes the regression coefficient values of all variables X less than one. This explains that the form of the relationship between the independent variable (variable X) and the creative economy (Y) is in-elastic. The form of relationship that occurs explains that the increase in the creative economy is influenced by the number of companies in the creative economy sub-sector (X1), creative industry exports (X2), information technology (X3), Intellectual Property Rights (X4), bank credit financing for Micro, Small, Enterprises. Medium (X5) is very small, because the regression coefficient value of the variable is less than one.

Variations in the capabilities of the variables Number of Companies in the creative economy sub-sector (X1), Creative industry exports (X2), information technology (X3), Intellectual Property Rights (X4), bank credit financing for Micro, Small and Medium Enterprises (X5) simultaneously influence the economy creativity is shown by the Adjusted R-squared of 0.890011 (89 percent). This explains that the influence is very strong, and only 0.109989 (11 percent) of other influencing factors are not included in the model studied. The prediction of potential creative economic performance for model I in table 2 above is seen from the sum of the provincial intercepts and constant values. The largest/highest predicted potential for creative economic performance is DKI Jakarta province (0.934529 + 10.2887) and the lowest predicted potential is DI Yogyakarta. DKI Jakarta is predicted to have the highest potential for creative economic performance, because this is supported by DKI Jakarta as the country's capital and as the center of the economy, so that it is able to maximize the use of available information technology and strengthen human resources in creating innovation, thinking creatively, and being insightful towards needs. man. Apart from that, the DKI government is building infrastructure to support productivity, providing internet access, special marketing platforms. In an effort to increase the potential of the creative economy, the government has sustainable programs in an effort to increase knowledge and skills, entrepreneurial abilities, production processes, copyright registration, use of information technology and the creation of healthy industrial competitiveness.

For model II, the influence of the creative economy on community welfare (Human Development Index), statistical tests show a positive and significant relationship. The positive relationship explains that the increase in the creative economy has an impact on improving people's welfare. The regression equation from model II is as follows:

Log Z = 8.6104 + 3.0134 Log Y

The simple linear regression equation from model II explains that increasing the creative economy can improve people's welfare. The regression coefficient for the creative economy is 3.0134, which explains that an increase in the creative economy by one unit will be able to increase people's welfare threefold. This explains that the form of the relationship that occurs is elastic. The variation in the ability of the creative economy to influence community welfare is 0.868107 (86.81 percent) and only 0.131893 (13.19 percent). The highest potential Human Development Index prediction is shown by the sum of the intercept and constant values, namely DKI Jakarta with a value of 9.4298, while the lowest prediction is DI Yogyakarta. DKI Jakarta is predicted to have a high potential for community welfare compared to other provinces on the island of Java, this is due, firstly, to the government's policy on neighborhood-based spatial planning so that people can meet their needs without having to travel long distances. Second, the provision of basic, resilient city facilities and services carried out by the government. Third, improving digital infrastructure as the backbone of modern data-based government governance. Lastly, integration of population data to produce appropriate social interventions. Apart from that, it is also influenced by predictions of the highest potential for the creative economy of DKI province and this automatically increases people's income and also DKI Jakarta, the center of trade and the capital of the country.

V. CONCLUSION

Based on the results of the research above, it can be concluded that the creative economy in this case is proxied from the gross regional domestic product of the creative economy subsector which is influenced by the number of companies in the creative economy subsector, creative industry exports, information technology, intellectual property rights, bank credit financing for micro, small and medium enterprises. simultaneously or partially. The form of influence that occurs is positive and significant on the creative economy. And the development of the creative economy has an impact on human welfare, which is proxied from the Human Development Index. Apart from that, the province predicted to have the highest creative economic potential is DKI Jakarta, followed by the provinces of West Java and East Java. Meanwhile, the province predicted to have the potential for a high human development index is DKI Jakarta, followed by West Java and Central Java. The creative economy is a driving force for economic development in many countries, especially the important role of the creative economy in economic recovery during the pandemic. Efforts made to improve the performance of the creative economy are (1) encouraging the creative industry to have Intellectual Property Rights with easier and less complicated requirements (2) Ownership of Intellectual Property Rights in accordance with Government Regulation Number 24 of 2022 is used as a collateral object to obtain financing credit collateral objects of bank and/or non-bank financial institutions in the form of fiduciary guarantees. (3) Providing stimulation and encouragement to creative industry players through policies that create a conducive business climate. (3) Strengthening business through innovation capabilities, strengthening infrastructure and using information technology. (4) To boost exports in the creative economy sector through collaboration between parties in an effort to increase promotion and establish cooperation with all stakeholders. (5) Exploring and encouraging the potential of local products to make them more competitive. The conclusion is that supporting creative economic growth comes from human capital, social capital, cultural capital, and institutional structural capital and the role of government.

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