Do Labor and Openness Affect the Performance of the Creative Industries?

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ABSTRACT

Objective – The economy cannot be separated from the influence of the civilization advancement in which the economy and business today have experienced a paradigm shift, that is, from a resource economy to an economic paradigm based on knowledge and creativity. One of the industries that is growing in line with current economic progress is the creative industry. This quantitative descriptive research aims to analyze labor and exports which affected the Gross Domestic Product (GDP) of the creative economy sector in Indonesia from 2011 to 2018.

Methodology/Technique – The data used in this study is secondary data from the official website of Indonesia Central Bureau of Statistics and UMCOMTRADE 2-digit SITC code revision 4.

Findings & Novelty – From the research finding, two main features were obtained. The first was regarding the labor of the creative industry sub-sector which has positive effect on the GDP of the creative industry. In contrast, the second is concerned with the export of the creative industry sub-sector which depicts the contradictory impact on the GDP of the creative industry.

Type of Paper: Empirical

JEL Classification: N1, F16, J01, O10.

Keywords: Gross Domestic Product; Labor; Exports; Creative Economy Sector.

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1. Introduction

Globalization is faced by modern society and it affects all aspects of human activity. Over the past few decades, globalization has created numerous advantages for the development of the national economy. Some countries experience structural changes when traditional industries are replaced by service and innovation sectors. This condition indicates a transition to a knowledge economy where certain roles are played by creativity (Cabelkova et al., 2015; Zelazny, 2017). Globalization can improve relations with other countries, especially in exports and imports. Creativity is a complete resource primarily based on ideas and cultural characteristics rather than on physical capital.

The principal source of creativity is invisible because it includes everything that everyone has such as knowledge, emotions, talents, and spontaneity (Skavronska, 2017).

Empirical results show that the development of creative industry potential has led to increased income and employment opportunities in Brazil (Kon, 2016). It has been found that employment opportunities in the creative industry sector are influential factors that affect Ecuador's economy both in the medium and long term (Quezada et al., 2018). Keynes also added that one of the factors that drives increased income in the economic sector is exports. On the other hand, Ukraine encourages creative business by enhancing a culture of openness and forming an ecosystem in the development of creative industries (Skavronska, 2017). The existence of openness is a thriving thing in the creative industry (Potts & Cunningham, 2008).

Other studies have found that exports affect GDP in Somalia (Ali., et al, 2018). The importance of exports in economic growth is noted because they play a good role in the overall welfare of the economy of every country. In Pakistan it was also found that exports are an important instrument that influences GDP for long-term and short-term economic growth (Fatemah & Qayyum, 2018).

In 2016, the contribution of creative economy income almost doubled from 2011. This circumstance indicates that Indonesia's creative economy has proliferated significantly; even its contribution to national GDP is predicted to reach 11 percent in 2020. In terms of value, the GDP of the creative economy exceeded IDR 1,000 trillion in 2017 and increased to close to IDR 1,102 trillion in 2018. In addition, the creative economy labor also considerably rose by 5.95 percent compared to 2015 (Permanasari, et al., 2018). The realization of creative economic growth is expected to continue to increase in line with the integration of the creative economy into the ministry of tourism. As a means to maintain the increasing trend of the creative economy, it is crucial to conduct research to determine the effect of labor and exports of the creative economy sub-sector on the GDP in Indonesia.

2. Literature Review

2.1 Gross Domestic Product

According to Keynes, GDP is employed as a reference for the national economy and the global economy. When GDP grows, employment conditions generally get better (Callen, 2008). GDP is an indispensable indicator of economic activity and growth in a region (Onnerfors and Brandmuller, 2011).

2.2 Labor and National Income

Lewis stated population growth will positively and negatively impact the ability to absorb and to take advantage of increased labor. This ability is influenced by the level and type of capital accumulation and supporting factors such as managerial and administrative skills (Lewis, 1954). According to the theory, labor growth has traditionally been regarded as one of the positive factors that drives economic growth. A larger number of laborers means an escalation in production level, and a tremendous population growth indicates a significantly substantial size of the domestic market.

2.3 Exports and National Income

Export activities constitute international trade, which stimulates domestic demand and leads to the growth of industries. Exports reflect international trade activities, so that a developing country can achieve economic progress on a par with more developed countries. Apart from increasing exports, international trade can also encourage technology adoption and absorption (Potts & Cunningham, 2008). The openness affected all aspects of human activity over the last few decades. Openness has changed the world dramatically by creating many benefits for national economic development. Many countries around the world are undergoing

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structural changes when traditional industries are replaced by service and innovation sectors. This state marks a transition to a knowledge economy in which creativity represents a particular role (Skavronska, 2017).

3. Research Methodology

This study utilizes secondary data in the form of panel data, a combination of data over a period of 8 years starting from 2011 to 2018, as well as four sub-sectors of Indonesia's creative industries as cross-section data. The data is obtained from websites and official sites on the internet. This research refers to the GDP and labor data provided by the Indonesia Central Bureau of Statistics, and the export data of UNCOMTRADE 2-digit SITC code revision 4 from 2011 to 2018.

The subsectors used in this research are computers, furniture, construction and building, as well as communication. The computer sub-sector is the creative economy sub-sector that uses computers the most in its production activities: advertising, architecture, design, video, film, photography, and the game industry. The furniture sub-sector is defined as the wood and processing sub-sector, while the construction and building sub-sector include the classification of property, real estate and building construction service companies. Furthermore, the communications sub-sector covers the private mobile cellular telecommunication system, communication system services, and packet data communication services (providers).

The analytical method used in this research is descriptive, qualitative and quantitative. The regression method used is Ordinary Least Square (OLS). The basic model that will be used in this study is as follows:

$$GDP_{it} = \beta_0 + \beta_1 L_{it} + \beta_2 X_{it} + \varepsilon_{it} \tag{1}$$

GDP= GDP of 4 creative industry sub-sectors; L= Labor; X= Exports

4. Results

4.1 Stationary Test

The stationary test is the most important step to analyze the data that contains time series elements to see whether there is a unit root contained between variables, so that the relationship between variables in the equation becomes valid. The stationarity test aims to determine whether the data is stationary so that it can be directly estimated or is it not stationary because it contains an element of trend so that adjustments must be made to stationary at a certain level. Table 1 shows that based on the ADF test, all variables used in this study are stationary at the level. Furthermore, the cointegration test is carried out to see the long-term relationship.

Table 1. Augmented Dickey-Fuller Test

Variable	Prob	Conclusion
GDP	0,0000**	Stationer
Labor	0,0350*	Stationer
Export	0,0110*	Stationer

**) significant at 5%

*) significant at 10%

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4.2 Cointegration Test

Table 2. Pedroni Test

Alternatif hypothesis: Common AR coefs. (Within dimension)			Weighted		Alternative hypothesis: individual AR coefs (between-dimension)	
	Statistic	Prob.	Statistic	Prob.	Statistic	Prob.
Panel v-Statistic	1,2892	0,0987	-0,2802	0,6104		
Panel rho-Statistic	1,5191	0,9396	1,1746	0,8799	Group rho-Statistic	0,9869
Panel PP-Statistic	0,4562	0,6759	-0,6144	0,2695	Group PP-Statistic	0.3596
Panel ADF-Statistic	-1,6896	0,0455	-1,2105	0,1130	Group ADF-Statistic	0.1130

Significant at 5%

The cointegration test results depict information that GDP, labor, and exports do not have a long-term relationship. In order to perceive a short-term relationship, it is requisite to do a regression test using the Ordinary Least Square (OLS) method.

4.3. Regression Test Results

Based on the Hausman test, the best model used to answer research questions is the fixed effects model. This model is able to accommodate the differences in characteristics between individuals. The following equation is obtained:

$$GDP_{it} = 392962.9 + 0.264L_{it} - 0.0000905X_{it} \tag{2}$$

Table 2. Fixed Effect Model

Variable	Coeficient	t-statistic	Prob	Conclusion
C	392962.9			
Labor (L)	0.264	0.149822	0.0896[*]	significant
Eksport (X)	-0.0000905	-4.332926	0.0002[**]	significant
Cross-section fixed (dummy variables)				
R-squared	0.9838			
Adjusted R-squared	0.9807			
F-statistic	316.8460			
Prob(F-statistic)	0.0000			

[**] significant at 5%
[*] significant at 10%

5. Discussion

Creative industry sub-sector labor presents favorable effect on the GDP of the creative industry. The threshold population level anticipated by Thomas Malthus (1766—1834) at which population increase was bound to stop because of the life-sustaining resources, which increase at an arithmetic rate, would be insufficient to support (Todaro & Smith, 2012). In terms of quantity, the total population will progress the market share for national products. While in terms of quality, it will considerably boost the number of laborers who are equipped to compete in the labor market. A labor that bestows high innovation will be able to compete in the labor market in line with the demands for the creation of competitive national products.

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Every creative industry must continue to innovate to survive the competition that comes along with the growth of similar new companies, both local and global. The development of the creative industry in Indonesia requires laborers who are capable of increasing company profits. They are obliged to possess creativity and innovation to take part in the creative industry market. This requirement is influenced by the level of education, skills and / or experience.

The increase in labor absorption is relatively high in the creative industry sector due to the sectoral transformation from agriculture to industry. Both small and medium industries require creative power, individual creativity, and specific skills related to information technology in company operations. Each company will strive to improve the value of the company's output. The increase in the output value of a creative industry company causes producers to increase their production capacity. Thus, it takes additional labor with certain skills to increase the amount of production of a creative industry.

The export of the creative industry sub-sector manifests contradictory impact on the GDP of the creative industry. It indicates that the exports of the four creative industry sub-sectors have not been able to increase the GDP of Indonesia in the creative industry sector. This result is in line with Pakistan's exports, which also suffered similar obstacle in increasing the GDP of its creative industries (Abbas, 2012).

Until 2018, the export destination countries for Indonesia's creative industry goods continued to expand to South Korea, China and Hong Kong (Indonesian Agency for Creative Economy, 2017). China is a country that has always experienced growth above 20 percent during the 2011–2015 period, however in 2016 there was a slowdown in growth. The export value only grew by 18.57 percent. Meanwhile, the export destination countries that continued to decline during the 2010–2016 period were the United Kingdom and the United States. In 2010, the export value of creative industry goods to the UK reached US $ 689.8 million, then continued to decline in 2016, to US $ 511.6 million or a decrease of 7.52 percent compared to 2015.

An extensive export share confers the high dependence and market concentration for the export of commodities of creative industry goods. Indonesia will depend heavily on the macro conditions in the destination countries. The macroeconomic conditions of the destination country have an impact on the decline in the import value of that country. Indirectly, this will also have an impact on the decline in the value of Indonesia's exports to these countries, including exports of products in the creative industry sector. The consequence is that the export value of creative industrial products has not increased Indonesia's GDP in the creative industry sector. The export dependence of Indonesia's creative industries is remarkably high in European countries and the United States. When the economies of these countries experience a shock, it will also affect the macroeconomy, including import activities.

6. Conclusion

The labor of the creative industry sub-sector has a positive effect on the GDP of the creative industry. Each company will increase the value of the company's output through the labor employment in accordance with the company's needs. Undoubtedly, the labor needed expertise that can be in line with current developments, especially thorough competency in computerization to increase the amount of creative industry production. In the era of globalization, the expertise of the labor in computerization will create work efficiency and effectiveness. In contrast, the export of the creative industry sub-sector has a negative effect on the GDP of the creative industry. This outcome shows that the export of goods produced by the sub-sector has not increased the GDP of the creative industry. This is due to the decline in demand for export products from Indonesia, especially countries in Europe and America the macroeconomic conditions of which experienced shocks. The impact of the import value in these countries tends to decline, including imports from Indonesia for production of the creative economy sector. Because the labor of the creative industry sub-sector has an effect on the GDP of the creative economy in Indonesia, it is hoped that each labor can increase

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knowledge both from formal education and through courses so that it has the skills needed for a job. Private and government agencies would be able to provide the means resulting in increased knowledge. .

The export value that has not been able to keep pace with the increase in the GDP of the creative industry requires business players and the Indonesian government to continue to innovate in exploration of available resources in the country. This allows an increase in Indonesia's ability to produce products that are not affected by economic shocks experienced by countries that import creative industrial products from Indonesia.

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