

# The Creative Economy Agency Support for the Micro and Small Industries Performance during the COVID-19 Pandemic

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## ABSTRACT

The creative industry grows from the micro, small and medium industry (MSME), thus the creative economy agency should alleviate the burden MSME have due to the COVID-19 pandemic impact. Hence, the main purpose of this research is to determine the relief actions the creative industry agency should do by observing the micro-small enterprises (MSE) performances that related to the creative industry.

The framework of this research is based on the national competitiveness of Porter's and the world economic index developed by Adamkiewicz. The secondary data is taken from the MSE survey conducted by BPS and followed by the GLS cross-section weights method, which allowed to make the estimation assuming heteroscedasticity exists.

This study finds that (1) the social competitiveness is the weakest foundation of MSE; (2) high institutional competitiveness offsets the low competitiveness of other factors; (3) the competitiveness of infrastructure and micro dimension remain be the MSE's competitiveness weakness. In order to reduce the impact of COVID-19 pandemic, the efforts may need to be done; Bekraf should take its supporter role, the optimization of Credit Guarantee Schemes for financing the MSMEs, opening up the technology which affordable and easily accessible (depot technology), and raising the entrepreneurs awareness to emphasize the cooperation in a business network.

**Keywords:** Bekraf; MSE; Competitiveness.

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## 1. Introduction

Before the government establishes the Creative Economy Agency (Bekraf) in 2015, the creative industry has grown and developed by itself. Bekraf intends to function as the developing center of national creative industry. BPS and Bekraf surveys in 2016 find that 77.58% of the creative industries have been established and developed before 2014. The creative industries, which are then classified into 16 sectors, are directly related to various sectors of activity in the Indonesian standard industrial classification (KBLI). In the manufacturing industry, the creative industries directly related to film, animation, and

video link are linked to C18; Crafts to C13, C15, C16, C17, C23, C25, C31, C32; Culinary arts to C10; Music to C18; and Fashion is linked to C14 and C15 (BPS, 2015).

Based on those connections, the role of Bekraf can be assessed indirectly from the performance of MSE (micro small enterprise). Its secondary data is more complete and BPS conducts the survey annually, except in 2020. Within the context, it needs to determine how Bekraf could affect the output and entrepreneur number of 11 KBLI classifications, and how its policy should alleviate the decline of economic activity caused by the pandemic the MSE and creative industries (especially culinary, fashion and crafts) are facing.

Thus, the main purpose of this study is to determine the relief actions the creative industry agency (Bekraf) should do by observing the micro-small enterprises (MSE) performances that related to the creative industry. As it is well known that the Indonesian government has established Bekraf as the developing center of national creative industry. During the pandemic, the creative industry is able to grow, especially those related to the digital industry. However, this research focus more on the MSE development which related to the creative industries, e.g fashion, craft, and culinary, which are also the top three creative economy businesses. The secondary data taken from the MSE survey conducted by BPS is used as a preliminary study, then proceed by the further study using the primary data and other secondary microdata.

## **2. Literature Review**

The studies and research on business strategy and competitiveness continue to develop along with more and more challenges that arise and demand new innovations. Moreover, at this time, the impact of the COVID-19 pandemic has hit all lines of economic and business life. The conventional methods may no longer apply or are not highly efficient in solving competitiveness problems.

Competitiveness creates opportunities for the younger generation, who are more productive, likely to open businesses and create new jobs. Porter (1990) describes Porter's five strengths (supplier power, buyer power, competitive rivalry, threat of substitution, and threat of new entry) as a simple framework for assessing and evaluating the competitive strength and position of business organizations. These five forces determine the intensity of competition and the attractiveness of a market. These five forces determine the intensity of competition and the attractiveness of a market. Porter's five strengths help to identify where strengths lie in the business settings. It is useful for understanding the current position strength of the organization's competitiveness, and which the position strength the organization may seek to aim for. In strategy analysis, Porter's five strengths can be used to understand whether a new product or service is potentially profitable. By understanding the position strength, the theory can also be used to identify the strength, correct the weaknesses, and avoid the mistakes.

The national competitiveness draws criticism from Krugman (1994). Krugman says that (1) The nations cannot compete as companies because the bankrupt companies go out of business; (2) When a company succeeds in gaining market share, it will reduce the market share of other companies, while the success of one country does not destroy the opportunities of other countries; (3) The national competitiveness is a way to explain productivity. But a country's productivity may not have anything to do with competition.

Even so, Porter's qualitative model of national excellence continues to develop and generalize into the double diamond of Rugman & D'Cruz; the generalized double diamond model of Moon, Rugman, & Verbeke; the nine-factor model of Cho & Moon; and the dual double diamond of Cho, Moon, & Kim (Adamkiewicz, 2019). Porter's model is also expanded with the role of FDI, human resources, and international factors that can be applied at the national level (Liu, 2017). Bhawsar and Chattopadhyay (2015) states the national competitiveness is the ability of a country to provide a conducive environment for its company to flourish. Adamkiewicz (2019) provides a view that the institutional pillars of competitiveness are: (1) social competitiveness (which consists of health, education, science); (2) institutional competitiveness (which consists of state institutions, institutional regulation of goods and services markets and labor market, the financial system of the state infrastructure competitiveness); (3) infrastructure competitiveness (which consists of transportation infrastructure and energy and telecommunications infrastructure; and (4) components of the micro-environment for the system of production competitiveness.

For research purposes and the availability of secondary data, this study uses four pillars of institutional competitiveness. The social competitiveness pillar uses formal education completed by business owners; the institutional competitiveness pillar uses government policies to establish Bekraf institutions, market cooperation, and credit; the infrastructure competitiveness pillar uses raw material difficulties as a form of infrastructure difficulty; and the components of the micro-environment for the system of production competitiveness uses the main consumers of products are traders, companies, and the export market.

In general, the performance of MSE has not been said to be "good." MSE still faces problems in management, marketing, technology improvement, and funding (Tambunan, 2019). The People's Business Credit (KUR) product does not focus on new customers such as MSE who do not yet have a bank account and credit collateral, and there is no "one-stop shop" for MSE to access capital (ILO, 2019). In addition to access, MSE faces raw material supplies that fluctuate in quality, price, and transportation costs, and still have to be imported (Burger et al., 2015). MSE is less attractive to a skilled and educated workforce (Burger et al., 2015; ILO, 2019). The resulting products are marketed globally and bilaterally rather than a decline in Indonesia's participation in GVCs through both forward and backward linkages from 2000 to 2017 (ADB, 2019).

### **3. Research Methodology**

The use of pool panel data is more profitable because it can overcome the heterogeneity problem. Panel data relating to individuals, companies, states, countries, and so on have heterogeneity over time, but the pool of panel data is often not observable ( Gujarati et al., 2012 ). In addition, the EViews program has provided a GLS specification menu with cross-section weights. This menu allows for a good estimation with the assumption of heteroscedasticity. The advantages of combining time series and other cross-sections are that the data becomes more informative, has more variability, less collinearity between variables, more freedom degrees and more efficient, and able to measure certain effects that occur. For this reason, this study uses the GLS method with cross-section weights. The standard model of the Generalized the Least Squares estimator is:

$$Y_i = X_i' \beta + \varepsilon_i \quad (i)$$

Since  $Var(\varepsilon_i) = \sigma^2$  and all covariances between error terms are zero. We have cross sectional heteroscedasticity. GLS can be applied (cross-section weights).

Based on the selection of panel estimates between the common effect panel (CE), fixed effect panel (FE), and random effect panel (RE), this study will use a fixed effect panel. The results of testing the selection of a panel method are presented in the findings section.

In fixed effect regression, the estimator becomes

$$Y_{it} = X_{it}' \beta + \alpha_{it} + \varepsilon_i \quad (ii)$$

with  $\alpha_{it}$  are called the fixed effects, and induce unobserved heterogeneity in the model.

$X_{it}'$  are the observed part of the heterogeneity

$\beta$  are regression coefficient estimates

t = 1, ... , N is time periods,

i = 1, ... , N is cross sections unit

$\varepsilon_i$  are error term in the model

In this context, the industrial output growth of micro-small and the number of businesses small and micro are affected by the credit, raw material difficulties, has the collaboration market, major consumer products are traders, the main consumer is the company, the main consumer is the export market, the formal education completed by the business owner, and the policy for establishing the Bekraf institution. The mathematical formula of the model can be written:

$$\log OMSE1_{ij} = (CREDIT_{ij}, DIFF\_RAW_{ij}, PARTN\_MARKET_{ij}, CON\_TRADER_{ij}, EDU\_FORMAL_{ij}, DUMM\_POL_{ij}) \dots\dots(1)$$

$$\log OMSE1_{ij} = (CREDIT_{ij}, DIFF\_RAW_{ij}, PARTN\_MARKET_{ij}, CON\_TRADER_{ij}, EDU\_FORMAL_{ij}, DUMM\_POL_{ij}) \dots\dots(2)$$

$$\log OMSE1_{ij} = (CREDIT_{ij}, DIFF\_RAW_{ij}, PARTN\_MARKET_{ij}, CON\_FOREIGN_{ij}, EDU\_FORMAL_{ij}, DUMM\_POL_{ij}) \dots\dots(3)$$

$$\log OMSE2_{ij} = (CREDIT_{ij}, DIFF\_RAW_{ij}, PARTN\_MARKET_{ij}, CON\_TRADER_{ij}, EDU\_FORMAL_{ij}, DUMM\_POL_{ij}) \dots\dots(4)$$

$$\log OMSE2_{ij} = (CREDIT_{ij}, DIFF\_RAW_{ij}, PARTN\_MARKET_{ij}, CON\_FIRM_{ij}, EDU\_FORMAL_{ij}, DUMM\_POL_{ij}) \dots\dots\dots(5)$$

$$\log OMSE2_{ij} = (CREDIT_{ij}, DIFF\_RAW_{ij}, PARTN\_MARKET_{ij}, CON\_FOREIGN_{ij}, EDU\_FORMAL_{ij}, DUMM\_POL_{ij}) \dots\dots(6)$$

The variables used in this study are:

Variables	Explanation
QMSE1	Revenue value on a year (Billions Rupiahs)
QMSE2	Number of entrepreneurs
CREDIT	Number of establishments of micro and small scale manufacturing industry having bank loans
DIFF_RAW	Number of establishments of micro and small scale manufacturing industry having difficulties
PARTN_MARKET	Number of entrepreneur has market cooperation
CON_TRADER	Number of establishments of micro and small scale manufacturing industry whose main consumers of products are traders
CON_FIRM	Number of establishments of micro and small scale manufacturing industry whose main consumers of products are firms
CON_FOREIGN	Number of establishments of micro and small scale manufacturing industry whose main consumers of products are foreign markets
EDU_FORMAL	Entrepreneur receiving a university graduation
DUMM_BEKRAF	The manufacturing sector has correlated creative industries after the 2015 year are 1, while others are zero

The secondary data used is a survey of micro and small industries in 2010 – 2019 by the Central Bureau of Statistics (CBS). CBS uses an employment-based definition of SMEs by which micro-enterprises are enterprises employing 1-4 people, small enterprises 5-19 people, medium-sized enterprises 20-99 people, and large enterprises above 100 people.

The MSE sectors taken are 11 sectors of the Indonesian Industrial Standard Classification, which are directly related to 6 sectors of the creative economy classification, and the creative economy classification sector based on the report on the Classification Analysis of Creative Economy Activities in the 2015 Indonesian Industrial Standard Classification Code (BPS, 2015).

#### **4. Results**

On grounds of the study aim is to prove the diversity of the MSE manufacturing sector, this study uses fixed effect panel regression. Nonetheless, to ensure that the panel fixed effect is best used compared to common effect and random effect, the test is still being done in this study. The test is carried out using models 1 and 3. In model 1, the choice between RE and CE, which uses a Breusch-Pagan cross-section (one-sided), resulted in a coefficient of 4.59 which is significant at the 5% confidence level (Table 1). Therefore, the regression model chosen is RE rather than CE. In the selection between FE and CE, which uses Redundant Fixed Effects Tests, it produces a coefficient of 17.46 which is significant at the 1% confidence level thus the research model chooses FE. In the selection between FE and RE, which uses Correlated Random Effects - Hausman Test, the research model chooses FE because the coefficient of 25.79 has a significance level of 1% confidence (Table 1).

Table 1. Selection of Regression Model on Dependent Variable Output MSE

Method: Panel EGLS (Cross-section weights)						
Dependent Variable: LOG(OMSE1)						
Variable	CE		FC		RE	
	Coefficient		Coefficient		Coefficient	
C	2.7570	***	2.8963	***	2.6199	***
CREDIT	0.0094	***	0.0040	***	0.0108	***
DIFF_RAW	0.0004		0.0010	*	0.0009	
PARTN_MARKET	-0.0003		0.0007	*	0.0014	**
CON_TRADER	0.0001		0.0008	**	-0.0005	
EDU_FORMAL	-0.0001		-0.0002		-0.0009	
DUMM_BEKRAF	0.3426	***	0.1927	**	0.3552	
Weighted Statistics						
R-squared	0.7810		0.9463		0.2997	
F-statistic	40.4202	***	63.8234	***	4.8504	***
Durbin-Watson stat	1.4529		2.6865		2.4434	
Unweighted Statistics						
R-squared	0.8087		0.9824		0.6988	
Durbin-Watson stat	0.9898		2.2677		0.2031	
Redundant Fixed Effects Tests						
Statistic of Cross-section F			17.4637	***		
Correlated Random Effects - Hausman Test						
Chi-Sq. Statistic					25.7925	***
Lagrange multiplier (LM) test for panel data						
Breusch-Pagan						
Cross-section One-sided	4.5884	**				

\*\*\*) significant at 1%, \*\*) significant at 5%, and \*) significant at 10%.

Source: Data processed

The dependent variable is the MSE output related to the six creative industry's sectors (table 3). The results of the fixed panel regression which uses GLS method with cross-section weights, produce constant variable significance at 1% degree of confidence in model 1, 2, and 3 whose each sector is shown to have a different constant. Correspondingly, the R-squared value shows that the independent model variables can explain the MSE output of 94.6% (model 1), 92.3% (model 2), and 93.1% (model 3). For the Durbin-Watson stat test, model 1 and model 2 show no autocorrelation at the 1% confidence level, while model 3 is in an area where no decision can be made. Meanwhile, the Residual Cross-Section Dependence Test shows the significance of the degree of confidence 1% to reject Ho, which means there is a cross-section dependence (correlation). This fact means that each sector is mutually affected and influences in producing MSE output. This fact is understandable due to the existence of the Bekraf agency, craft creative industry development involves 8 MSE sectors based on ISIC, namely: C13, C15, C16, C17, C23, C25, C31, C32.

Table 2. Selection of Regression Model on Dependent Variable Entrepreneur MSE

Method: Panel EGLS (Cross-section weights)						
Dependent Variable: LOG(OMSE2)						
Variable	CE		FC		RE	
	Coefficient		Coefficient		Coefficient	
C	11.1889	***	11.3765	***	11.0563	***
CREDIT	0.0119	***	0.0043	***	0.0084	***
DIFF_RAW	0.0001		0.0006	***	0.0005	***
PARTN_MARKET	-0.0023	***	-0.0003	**	-0.0008	***
CON_TRADER	0.0014	**	0.0007	**	0.0015	***
EDU_FORMAL	-0.0017	***	-0.0004	**	-0.0008	***
DUMM_BEKRAF	0.2913	***	0.2666	***	0.3510	***
Weighted Statistics						
R-squared	0.7995		0.9884		0.6138	
F-statistic	45.1802	***	308.5333	***	18.0123	***
Durbin-Watson stat	1.4199		1.9878		1.1041	
Unweighted Statistics						
R-squared	0.8087		0.9824		0.6988	
Durbin-Watson stat	0.9898		2.2677		0.2031	
Redundant Fixed Effects Tests						
Statistic of Cross-section F			78.6603	***		
Correlated Random Effects - Hausman Test						
Chi-Sq. Statistic					127.5470	***
Lagrange multiplier (LM) test for panel data						
Breusch-Pagan						
Cross-section One-sided	38.3175	***				

\*\*\*) significant at 1%, \*\*) significant at 5%, and \*) significant at 10%.

Source: Data processed

Table 4 presents the results of fixed panel regression, which uses the GLS method with cross-section weights for models 4, 5, and 6. Each model also shows differences in the number of entrepreneurs in the initial conditions with a degree of confidence of 1%. Correspondingly, the independent variable output model that explains the entrepreneur numbers of MSE of 98.8% (model 4), 98.9% (model 5), and 98.8% (model 6), which is indicated by the value of R-squared. For the Durbin-Watson stat test, model 6 is in areas that cannot take decisions, while model 4 and model 5 present no autocorrelation at 1% confidence level. A peculiar result occurs from the Residual Cross-Section Dependence Test which shows insignificance to accept Ho, meaning there is no-cross-section dependence (correlation). It states each entrepreneur does not influence the other and needs to be understood in different perceptive. The existence of the Bekraf institution has not encouraged the cooperation among the entrepreneurs in the classification based on KBLI.



Table 3. EGLS Panel with Dependent Variable Output MSE

Method: Panel EGLS (Cross-section weights)				
Dependent Variable: LOG(OMSE1)				
Variable	(1) Coefficient	(2) Coefficient	(3) Coefficient	
C	2.8963 ***	3.0022 ***	2.5304 ***	
CREDIT	0.0040 ***	0.0042 ***	0.0119 ***	
DIFF_RAW	0.0010 *	0.0009 *	0.0021	
PARTN_MARKET	0.0007 *	0.0006 **	-0.0022	
CON_TRADER	0.0008 **			
CON_FIRM		0.0003		
CON_FOREIGN			0.0001	
EDU_FORMAL	-0.0002	-0.0001	0.0001	
DUMM_BEKRAF	0.1927 **	0.2175 ***	0.5186 ***	
CROSSID - Effect				
C10	0.3670	0.8311	-0.5674	
C13	-0.7158	-0.7531	-0.8651	
C14	0.7158	0.6498	0.1787	
C15	-0.1709	-0.2841	-0.3087	
C16	0.0279	0.2176	-0.2686	
C17	0.5819	0.4545	3.0106	
C18	-0.9641	-1.0766	-0.0654	
C23	0.1749	0.1400	-0.1387	
C25	0.2939	0.1979	0.2040	
C31	0.3738	0.2750	0.2721	
C32	-0.5793	-0.6521	-0.5611	
Weighted Statistics				
R-squared	0.9463	0.9233	0.9313	
F-statistic	63.8234 ***	45.1411 ***	44.9057 ***	
Durbin-Watson stat	2.6865	2.4648	1.3147	
N	75	77	70	
Residual Cross-Section Dependence Test				
Null hypothesis: No cross-section dependence (correlation) in weighted residuals				
Breusch-Pagan LM	117.6400 ***	105.5640 ***	106.9605 ***	
Pesaran scaled LM	5.9725 ***	4.8211 ***	4.9542 ***	
Bias-corrected scaled LM	5.0558 ***	3.9044 ***	4.0376 ***	
Pesaran CD	3.2655 ***	3.2743 ***	4.1013 ***	

\*\*\*) significant at 1%, \*\*) significant at 5%, and \*) significant at 10%.

Source: Data processed

## 5. Discussion

In table 3, the constants, which are significant at the 1% confidence level, indicate that each MSE sector has a different initial condition sectorally, either model 1, model 2, or model 3. This finding is also in line with Miyakawa et al (2021), who finds that there is considerable heterogeneity related to the number and level of companies across industries and regions, and ADB (2019), which states that there is an increase in the effectiveness of MSE performance after the government begins to support for MSE differently. McKenzie & Woodruff (2017) argues that micro and small enterprises, which are the main form of economic activity in countries of low and middle income, have a very heterogeneous micro-business sector.

MSE in the manufacture of textiles sector (C13), the manufacture of leather and related products and footwear sector (C15), the printing and reproduction of recorded media sector (C18), and other manufacturing sector (C32) has an initial condition model 1 below the average. In terms of output



performance, the main consumer of traders in these sectors are relatively lower than in other sectors. This fact means that product sales revenue in these sectors comes more from consumer users than sales revenue from traders and companies. This condition is reinforced by model 2 (table 3), which also shows that the main consumer of companies in these sectors are also relatively lower. Meanwhile, in model 3 (table 3), the initial condition sectoral below the average initial condition model 3 increased to be 3 sectors, namely manufacturing of food products (C10), manufacturing of products of wood, cork, bamboo, rattan (except furniture) (C16), and manufacturing of other non-metallic mineral products (C23). This condition is supported by the findings of a survey conducted by ADB, which shows that Indonesian products are marketed more bilaterally than globally. MSE Indonesia products are marketed directly to consumer users, resulting in a decrease in Indonesia's participation in GVCs through both forward and backward linkages from 2000 to 2017 (ADB, 2019).

Table 4. EGLS Panel with Dependent Variable Entrepreneur MSE

Method: Panel EGLS (Cross-section weights)					
Dependent Variable: LOG(OMSE2)					
Variable	(4) Coefficient		(5) Coefficient		(6) Coefficient
C	11.3765 ***		11.3227 ***		11.3127
CREDIT	0.0043 ***		0.0044 ***		0.0080 ***
DIFF_RAW	0.0006 ***		0.0005 ***		0.0001
PARTN_MARKET	-0.0003 **		-0.0003 **		-0.0002
CON_TRADER	0.0007 **				
CON_FIRM			0.0062 ***		
CON_FOREIGN					0.0002 ***
EDU_FORMAL	-0.0004 **		-0.0003 **		-0.0001
DUMM_BEKRAF	0.2666 ***		0.2175 ***		0.4455 ***
CROSSID - Effect					
C10	0.9125		1.2722		0.8603
C13	0.5571		0.4124		0.4645
C14	0.9303		0.4858		0.6366
C15	-0.6449		-0.6573		-0.8667
C16	1.1525		1.1918		1.2491
C17	-2.3561		-2.3101		-2.4362
C18	-1.0780		-1.0831		-1.0653
C23	0.5515		0.5525		0.3435
C25	0.0147		0.0164		-0.2550
C31	0.1438		0.1131		-0.0601
C32	0.0776		0.0063		-0.0963
R-squared	0.9884		0.9892		0.9880
F-statistic	308.5333 ***		344.0815 ***		273.4844 ***
Durbin-Watson stat	1.9878		2.0793		1.4485
N					
Residual Cross-Section Dependence Test					
Null hypothesis: No cross-section dependence (correlation) in weighted residuals					
Breusch-Pagan LM	68.0157		63.7573		68.6091
Pesaran scaled LM	1.2410		0.8350		1.2976
Bias-corrected scaled LM	0.3243		-0.0817		0.3809
Pesaran CD	2.1025 **		2.9313 ***		0.4131

\*\*\*) significant at 1%, \*\*) significant at 5%, and \*) significant at 10%.

Source: Data processed

Table 4 presents that the model constants are significant at the 1% confidence level, either on model 4, model 5, or model 6. The aspect also shows that each MSE sector has a different initial conditions sectorally, either model 1, model 2, or model 3. The initial condition in the sector with the number of entrepreneurs at C15 (manufacture of leather and related products and footwear), C17 (paper and paper goods), C18 (printing and reproduction of recorded media) is lower than the average initial condition in model 4 and model 5. This condition suggests there is less interest in becoming entrepreneurs in these sectors. If it is related to the findings in table 3, the decline in income in sector C15 and C18 is also caused by the decreasing number of entrepreneurs.

For the main consumers of foreign markets, the decreasing number of entrepreneurs also occurred in C25 (manufacture of fabricated metal products excepts machinery and equipment), C31 (manufacture of furniture), and C32 (other manufacturing). In addition to the declining participation in the global value chain, the lower competitiveness in these sectors may be due to the higher use of capital. Kacaribu et al. (2018) shows that the majority of Indonesian imports in the form of raw materials and auxiliary materials for domestic goods production inputs, and a comparative advantage in the more capital-intensive commodities are owned by the larger size of the company.

From the credit aspect prospective, the credit disbursement increases MSE's output performance related to the creative industry. Credit disbursement has led to an increase in the output of 0.40% (model 1), 0.41% (model 2) and 1.19% (model 3). Correspondingly, the credit also improves in the number of employers by 0.43% (model 4), 0.44% (model 5), and 0.80% (model 6). This finding suggests that the addition of credit can help MSE related to the creative economy both in increasing output or driving the increase in the number of entrepreneurs. It is in line with the opinion of Ferrando and Ganoulis (2020) who argue that small companies are more likely to have certain conditional expectations to increasing their finance accessibility. However, credit distribution in the context of alleviate the impact of the COVID-19 pandemic needs to pay attention to the variety of industries in need (as the findings of this study) and the special credit programs. The special credit program is not a credit program with low interest rates or deferral of tax payments but in the form of a credit grant program. This opinion has been expressed by Gourinchas et al. (2020) who say that the interest rate amnesty, tax deferral, and rent have little impact on the company failure, whereas cash grants can significantly reduce the rate of business failure, but with high fiscal costs. In addition, the optimization of Credit Guarantee Schemes (CGS) for Financing MSMEs may possible (Wardhono et al, 2019). The CGS is a popular government program to guarantee bank loans to MSMEs. The research result by Wardhono et al (2019), the CGS has not functioned optimally for MSMEs that do not have credit guarantees. MSMEs who do not have credit guarantees do not have many opportunities to access the credit from formal microfinance institutions.

The difficulty of raw materials does not affect the increase in the number of MSE entrepreneurs associated with creative industries, especially MSE whose the main consumers are traders and companies. Although the increase is very low at 0.06% (model 4) and 0.05% (model 5), it is not aligned with the general opinion that the increasing difficulty should reduce the output performance and the number of entrepreneurs. This fact should mean that poverty appears to be the main force behind MSE growth (Tambunan, 2019). In other words, MSE entrepreneurs have no other choice but to stay in the MSE

business despite facing various difficulties in raw materials. Raw material difficulties faced by MSE entrepreneurs are, among others, raw material supplies that have fluctuating quality and quantity, uncertainty in raw material prices, and transportation costs (Burger et al., 2015), as well as the high number of raw materials that still have to be imported for domestic production (Burger et al., 2015; Kacaribu et al., 2018).

In order to alleviate the raw material problem, MSEs should utilize new technology better and it should be given a facilitate to affordable technologies that meet local business needs and are easy to use, such as technology depots in Singapore. This program can also be combined with technical advice to ensure that the benefits of new technologies are fully utilized by local companies (Ministry of Finance and ADB (2020). Technically speaking, the JRF (Java Reconstruction Fund), a livelihood restoration project, which operates 13,000 micro and small enterprises (MSEs) in Central Java and Yogyakarta. It gives away the innovative solutions for the post-disaster livelihood recovery. The organization help to improve the business and production skills and in addition to the increasing their access to finance and markets. The project has had a strong impact on the livelihoods of women affected by the 2006 disaster.

In the context of market cooperation, the main consumer from abroad have not contributed to increasing output and the number of entrepreneurs. Meanwhile, market cooperation, which is the main consumer of traders and companies, has contributed positively to the increase in MSE output (table 3) and negatively to the number of MSE entrepreneurs (table 4). Market cooperation has increased output by 0.07% (model 1) and 0.06% (model 2), while market cooperation has decreased the number of entrepreneurs by 0.03% (model 4) and 0.03% (model 5). The market cooperation has not contributed to the increase in the number of entrepreneurs. Even though our society is known as the "gotong royong" society, individual competition remains dominant. As the result, it is harder for the entrepreneurs to share the market. The business environment is also not yet supportive. This condition is supported by many young women and men being forced into self-employment to meet the ends. Some have succeeded in building a sustainable business, but others have failed or unable to develop because of the lack of facilities and empowerment of the business environment. These entrepreneurs are faced with business constraints such as limited access to markets, raw materials, and capital (ILO, 2011). According to the Doing Business World Bank, Indonesia is not the easiest country to set up a new company or to play an active role in the business sector. This situation is reflected in the Doing Business 2020 index ranking report at position 73 with the lowest scores on starting a business (at position 140) and contract enforcement (at position 139) (World Bank, 2019). In the context of the COVID-19 pandemic, the entrepreneurs need to share the market even though the market condition is even more narrow. Entrepreneurial collaboration to build business networks has facilitated the exchange of information and also to create social relationships in order to increase competitive advantage at MSE Batik in Pekalongan (Meutia, 2013).

The main consumer factors contributes to the increase the number of MSE entrepreneurs related to the creative industry, e.g film, animation, and video; crafts; culinary arts; music; fashion; and publications. The main consumer contribution in the addition of entrepreneurs is 0.07% (for traders), 0.62% (for companies), and 0.02% (for overseas consumers). Meanwhile, the main consumer contribution in increasing output is 0.08% (for traders). This situation proves that the traders are the main focus of MSE consumers related to the creative industry. The increase in resellers has contributed to an increase in output and the number of MSE entrepreneurs related to the creative industry.

The formal tertiary education completed by entrepreneurs has not contributed to the growth of MSE output related to the creative industries. The slowdown in higher education graduates contributed to the increase in the number of entrepreneurs by 0.04% (model 4) and 0.03% (model 5). The conditions are in line with the results of the 2018 survey. The 2018 Survey of Entrepreneurs and MMSES in Indonesia conducted by the Asia Pacific Foundation of Canada shows that more than 70% of entrepreneurs are high school graduates, 15% are college graduates and 2% have international experience. Correspondingly, Amalia & von Korfflesch (2021) state that entrepreneurship education in Indonesian universities has not been effective as an entrepreneurship education program.

However, training and training efforts still need to be carried out continuously, as has been done by many Bekraf institutions, which contribute to increasing MSE output related to the creative industry. Bekraf's contribution to the output of 19.27% (model 1), 21.75% (model 2), and 51.86% (model 3) has covered the small contribution of other pillars. In addition to increasing output performance, the hope of Bekraf's work is also directed at creating new entrepreneurs. The increase in new MSE entrepreneurs related to the creative industry due to the existence of Bekraf institutions is 26.66% (model 4), 21.75% (model 5), and 44.55% (model 6).

## **6. Conclusion**

First, social competitiveness is the weakest pillar in building MSE's competitiveness. It requires a long-term and continuous although it is not a top priority during the pandemic.

Second, the institutional power pillar provides the greatest contribution, especially Bekraf's influence by existing, regardless Bekraf is more aimed at the creative industry. Apart from supporting Bekraf's work, the optimization Credit Guarantee Schemes for Financing MSMEs is possible.

Third, although the difficulty of getting the raw materials does not reduce the climb in the number of MSE entrepreneurs, MSE needs to get a facilitate to affordable technologies that meet local business needs and are easy to use, a kind of technology depot in Singapore, to overcome the material supply difficulties. Technical guidance can adopt the Java Reconstruction Fund (JRF) method to rebuild heterogeneous MSEs.

Fourth, the lower contribution of the competitiveness pillar on the micro-dimensional level displays the need to raise the awareness on the importance of cooperation in a business network as experienced by MSE Batik in Pekalongan.

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**Reference**

- Adamkiewicz, H. G. (2019). The dimensions of national competitiveness: The empirical analysis based on the World Economic Forum's Data. *Economics and Business Review*, 5(3), 92–117. <https://doi.org/10.18559/ebr.2019.3.6>
- ADB. (2019). The evolution of Indonesia's participation in Global Value Chain. Retrieved October 10, 2021, from <https://www.adb.org/sites/default/files/publication/534851/evolution-indonesia-participation-global-value-chains.pdf>.
- Amalia, R. T., & von Korfflesch, H. F. (2021). Entrepreneurship education in Indonesian higher education: Mapping literature from the country's perspective. *Entrepreneurship Education*. <https://doi.org/10.1007/s41959-021-00053-9>
- Bhawsar, P., & Chattopadhyay, U. (2015). Competitiveness: Review, Reflections and Directions. *Global Business Review*, 16(4), 665–679. <https://doi.org/10.1177/0972150915581115>
- BPS (2015). 2015 Indonesian Standard Industrial Classification Codes
- Burger, N., C. Chazali, A. Gaduh, A.D. Rothenberg, I. Tjandraningsih and S. Weiland. (2015). *Reforming Policies for Small and Medium Enterprises in Indonesia*, Jakarta, Indonesia, RAND Corporation in collaboration with the National Team for the Acceleration of Poverty Reduction (TNP2K), Jakarta, Indonesia.
- Ferrando, A., and I. Ganoulis. (2020). Firms' Expectations on Access to Finance at the Early Stages of the Covid-19 Pandemic. *European Central Bank Working Paper 2446*. European Central Bank, Frankfurt.
- Gourinchas, P. O., S. Kalemli-Ozcan, V. Penciakova, and N. Sander. (2020). *COVID-19 and SME Failures*. NBER Working Paper 27877. National Bureau of Economic Research, Cambridge
- Gujarati, D. N., Porter, D. C., & Gunasekar, S. (2012). *Basic econometrics*. Tata McGraw-Hill Education.
- ILO. (2011). *Business environment: For young entrepreneurs in Indonesia*. Jakarta: ILO.
- ILO. (2019). *Financing Small Businesses in Indonesia: Challenges and Opportunities*/International Labour Office – Jakarta: ILO, 2019 iv, 64 p.
- Kacaribu, F., Lumbanraja, A. U., Revindo, M. D., Sabrina, S., Pricilia, Z., & Natanael, Y. (2018). Recent Developments in Indonesia's Macro-economy and Trade, Q1-2018. *Economics and Finance in Indonesia*, 64(1), 1-24.
- Khan, S. (2010). *Enhancing community resilience for a self sustaining future: progress report 2010* (No. 58211, pp. 1-64). The World Bank.

- Krugman, P. (1994). Competitiveness: A dangerous obsession. *Foreign Affairs*, 73(2), 28.  
<https://doi.org/10.2307/20045917>
- Liu, C. (2017). International Competitiveness and the Fourth Industrial Revolution. *Entrepreneurial Business and Economics Review*, 5(4), 111–133. <https://doi.org/10.15678/eber.2017.050405>
- Meutia, M. (2013). Improving Competitive Advantage and Business Performance Through the Development of Business Network, Adaptability of Business Environment and Innovation Creativity: an Empirical Study of Batik Small and Medium Enterprises (SME) in Pekalongan, Central Java. *Aceh International Journal of Social Sciences*, 2(1), 26304.
- Ministry of Finance and ADB. (2020). *Innovate Indonesia Unlocking Growth Through Technological Transformation*. Metro Manila, Philippines: Asian Development Bank. DOI: <http://dx.doi.org/10.22617/SGP200085-2>
- Miyakawa, D., K. Oikawa, and K. Ueda. (2021). “Firm Exit during the COVID-19 Pandemic: Evidence from Japan.” *Journal of the Japanese and International Economies* 59: 101118.
- Porter, M. E. (1990). *The competitive advantage of nations*. New York: The Free Press.
- Tambunan, T. (2019, January 23). Recent evidence of the development of micro, small and medium enterprises in Indonesia. *Journal of Global Entrepreneurship Research*. Retrieved October 10, 2021, from <https://link.springer.com/article/10.1186/s40497-018-0140-4>.
- Wardhono, A., M. I. Modjo, and E. W. Utami. (2019). *The Role of Credit Guarantee Schemes for Financing MSMEs: Evidence from Rural and Urban Areas in Indonesia*. ADBI Working Paper 967. Tokyo: Asian Development Bank Institute. Available: <https://www.adb.org/publications/role-credit-guarantee-schemes-financing-msmes-indonesia>
- World Bank. (2019). *Doing business 2020: Comparing business regulation in 190 economies*. <https://doi.org/10.1596/978-1-4648-1440-2>