**THE ROLE OF BANK CREDIT**

**IN THE DEVELOPMENT OF MSME METAL**

**Abstract**

This research aimed to analyze the performance difference of metal craftsmen receiving bank credit, before and after receiving bank credit. The performance of metal craftsmen can be seen from net income level. This research used primary data. Primary data was obtained from direct interview with metal craftsmen in Pasir Wetan Village, Karanglewas Sub-District, Banyumas Regency. The analysis method used in this research was t test analysis. The result indicated that there was a significant difference before and after receiving bank credit. The existence of bank credit provided benefits for the development of MSME metal in Pasir Wetan Village, Karanglewas Sub-District, Banyumas Regency, in which the performance of metal craftsmen has increased. Bank credit was required by metal craftsmen in Pasir Wetan Village to overcome the problem of limited capital in developing the metal processing business. The measures that can be taken by the government related to efforts to improve MSME access to capital are to provide incentives and redesign existing credit programs.

**Keyword*s*:** *MSMEs; Performance; Bank credit; MSMEs Development Strategy*

**INTRODUCTION**

Micro, Small and Medium Enterprises (MSMEs) have an important role in the Indonesian economy. MSME has a contribution of 97 percent to the absorption of labor in Indonesia. In addition, data in 2021 indicates that MSME contributes 61,07 percent of the total Gross Domestic Product (GDP) of Indonesia (Kementerian Koordinator Bidang Perekonomian Republik Indonesia, 2021).

The study shows that the development of MSME is closely related to economic growth. For example, a study conducted by Ayyagari *et al.* (2007) found that MSMEs in high-income countries have a positive relationship with economic growth. The existence of MSME contributes 50 percent to Gross Domestic Product.

After global financial crisis occurred in 2008-2009, there was increasing attention to the role of MSME. MSME has an important role for the economy. The role includes employment creation and increasing economic growth (Ardic *et al.*, 2011).

Organisation for Economic Co-operation and Development (OECD) estimates that the total number of MSMEs worldwide reaches 90 percent of the total number of companies in the world. In addition, the number of workers employed in MSME worldwide reaches 63 percent of the total number of workers in the world (Berisha and Pula, 2015).

International Labour Organization (2015) also states that MSME is the main source of job creation. There are many sectors in MSME. In addition, MSME includes productive and non-productive companies. This is also a challenge for the development of MSME.

MSME is a sector that is able to expand employment and increase economic growth. The government is trying to develop MSMEs to improve performance of this sector. The development of MSME still faces constraints, especially in accessing funds from the banking sector (Bank Indonesia, 2011).

Mulyati (2010) conducted a research on MSME leather jacket in Garut Regency, West Java Province. The result indicates that there is a weak correlation between MSME leather jacket and banking, research and development institutions and universities. This supports the fact that the government’s efforts to develop MSME still face constraints, especially in accessing funds from the banking sector.

The other research on MSME conducted by Taufiq (2006) examines about the use of MSME credit fund to increased business of MSME slipper and shoes in Wedoro Village, Waru Sub-district, Sidoarjo Regency. The result indicates that there is a difference between respondents who use credit and respondents who do not use credit in increasing their business. 95 percent of respondents who use credit experiences an increase in self-capital and 78 percent of respondents who do not use credit experience increased business.

Arregui (2012) examines about enterpreneurship and MSMEs in Mexico. Arregui identifies strategies to accelerate the growth of MSMEs in Mexico. The strategies include: 1) providing access to capital, 2) getting equal treatment between MSME and larger business, 3) reducing frictions in the supply chain, and 4) facilitating MSME to access performance bond.

The role of bank credit seen from the performance of MSME before and after receiving bank credit needs to be analyzed further. The previous researches, for example, a research conducted by Taufiq (2006) only performed t test analysis between credit user group and non credit user group. T test analysis conducted by differentiating the performance of craftmen before and after receiving bank credit has not been performed.

This research analyzes the performance difference of metal craftsmen in Pasir Wetan Village, Karanglewas Sub-district, Banyumas Regency before and after receiving bank credit. The performance of metal craftsmen can be seen from the level of net income. This is the state of art or novelty of this research.

The constraints in accessing bank credit become the material of further thought to analyze the role of bank credit in the development of MSME. This research also identifies the constraints faced by metal craftsmen in accessing bank credit and constraints faced by metal craftsmen in utilizing bank credit.

**METHOD**

This research used primary data. Primary data was obtained from direct interview with metal craftsmen in Pasir Wetan Village, Karanglewas Sub-District, Banyumas Regency. Primary data included data on age, education level, business duration, amount of bank credit assistance received, and net income level before and after receiving bank credit.

Based on data obtained from the board of metal craftsmen community in Pasir Wetan Village, Karanglewas Sub-District, Banyumas Regency (Satria Group), the number of metal craftsmen who receive bank credit was 16 craftsmen. In this research, 16 craftsmen were selected as respondents.

The analysis method used in this research is the t test analysis. T test analysis is used to determine the difference between two conditions. Detection of difference between conditions is useful for the researcher to obtain information about a program evaluation (Kuncoro, 2003). In this research, t test analysis is used to analyze the performance difference of metal craftsmen before and after receiving bank credit. Performance of metal craftsmen can be seen from the level of net income.

Before the data is analyzed by using t test analysis, the data must be tested for normality. The parametric t test can not be used if the data is not normal. Non-normal data are analyzed by using nonparametric t test. To determine whether the data is normally distributed or not, it is used Kolmogorov-Smirnov normality test.

The basis of decision-making in Kolmogorov-Smirnov normality test is that if the significance value is greater than 0.05, the the data is normally distributed. Conversely, if the significance value is smaller than 0.05, then the data is not normally distributed.

After performing normality test, the next step is to perform t test analysis. T test analysis is performed by using the following tests (Sujarweni, 2015):

- Parametric t test (data is normally distributed)

 The parametric t test used is paired sample t test. To calculate t test used to test the hypothesis of the average difference of two correlated samples, it is used the formula:

 

 where:

  = average sample 1

  = average sample 2

 s1 = standard deviation of sample 1

 s2 = standard deviation of sample 2

  = variance of sample 1

  = variance of sample 2

 r = correlation between two samples.

 Hypothesis:

H0 = there is no difference in performance of metal craftsmen before and after receiving bank credit.

Ha = there is difference in performance of metal craftsmen before and after receiving bank credit.

If t count value is significant at α = 0.05, then H0 is rejected. In other words, there is a difference in performance of metal craftsmen before and after receiving bank credit.

- Non-parametric t test (data is not normally distributed).

Non-parametric t test used is Wilcoxon test. Wilcoxon test is performed to compare between two intercorrelated data groups. This test is performed by calculating Z value as follows:



Hypothesis:

H0 = there is no difference in performance of metal craftsmen before and after receiving bank credit.

Ha = there is difference in performance of metal craftsmen before and after receiving bank credit.

If Z count value is significant at α = 0.05, then H0 is rejected. In other words, there is significant difference in performance of metal craftsmen before and after receiving bank credit.

By using t test analysis, performance evaluation of metal craftsmen was performed. The performance evaluation of metal craftsmen observed is the level of net income before and after receiving bank credit. Related to t test analysis, the hypothesis used in this analysis is that there is significant difference between before and after receiving bank credit.

**RESULT AND DISCUSSION**

**1. Profile of Metal Craftsmen in Pasir Wetan Village, Karanglewas Sub-District, Banyumas Regency**

Profile of metal craftsmen or in the other words, the profile of respondents in this research is seen from age, education level, and business duration. The first profile is seen in terms of age. Age is associated with one’s productivity, especially if the job requires a lot of work forces. Based on age, the majority of respondents are in productive age. The respondents who are in productive age are 87.5 percent. This can be seen in Table 1.

**Table 1.** Profile of Respondents by Age

|  |  |  |
| --- | --- | --- |
| **Age Group** | **Amount** | **Percentage** |
| 31 – 3536 – 4041 – 4546 – 5051 – 5556 – 6061 – 6566 – 7071 – 75 | 212323111 | 12.50 6.2512.5018.7512.5018.75 6.25 6.25 6.25 |

Source: Primary Data

The age of respondents included in the productive age allows the respondents to work better compared to respondents at the age over 65 years. The respondents at the age over 65 years are included in unproductive age.

Furthermore, the profile of respondents is seen from the education level. Education level indicates formal education taken by the respondents. In general, a person’s education level may affect the ability to run a business, such as managerial skills, the ability to obtain information and new knowledge from outside which is useful to develop the business. In general, the education level of metal craftsmen is low. Table 2 shows the profile of respondents by education level.

**Table 2.** Profile of Respondents by Education Level

|  |  |  |
| --- | --- | --- |
| **Education Level** | **Amount** | **Percentage** |
| Do not graduate primary school | 1 |  6.25 |
| Primary School | 6 | 37.50 |
| Secondary School  | 4 | 25.00 |
| High School | 4 | 25.00 |
| Diploma/Bachelor Degree | 1 |  6.25 |

 Source: Primary Data

Based on Table 2, it can be determined that the education level of respondents is still relatively low. 68.75% of respondents do not go to high school. 37.5% of respondents only graduate from primary school and one respondent does not graduate from primary school. The respondent who graduate diploma or bachelor degree is only one person. Working as metal craftsman does not prioritize formal education, skills are preffered. Skills can be gained by training.

Further, the profile of respondents is seen from the business duration that has been run by the respondents. In average, the business has been running for 19 years, the shortest business duration is three years and the longest one is 47 years. Table 3 shows the profile of respondents by business duration.

**Table 3.** Characteristics of Respondents by Business Duration

|  |  |  |
| --- | --- | --- |
| **Business Duration** | **Amount** | **Percentage** |
| 1 – 10 | 6 | 37.50 |
|  11 – 20 | 5 | 31.25 |
|  21 – 30 | 2 | 12.50 |
|  31 – 40 | 0 |  0.00 |
|  41 – 50 | 3 | 18.75 |

Source: Primary Data

Table 3 shows that there are three respondents with business duration of above 40 years. Working as metal craftsmen demands the skills and ability to process the metal into goods in accordance with consumer demand. It is not easy for people to open metal processing business, this provides advantages for business owner, such as the ability to survive the business.

**2. Result of t Test Analysis**

The result of Kolmogorov-Smirnov normality test indicates that the data of net income level before and after receiving bank credit is not normally distributed. This result is shown in Table 4.

**Table 4.** Result of Kolmogorov-Smirnov Normality Test

|  |  |  |
| --- | --- | --- |
|  | **Z Value** | **Significance Level** |
| Net income level before receiving bank credit Net income level after receiving bank credit  | -3.5160.215 | 0.0000.046 |

Source: Processed from primary data

Description:

α = 0.05

Based on Table 4, it can be seen that Kolmogorov-Smirnov statistical value for the variable of net income level before receiving bank credit and the variable of net income level after receiving bank credit is significant at α = 0.05. In other words, the significance value is smaller than 0.05. The result of normality test indicates that the data of net income level before and after receiving bank credit is not normally distributed.

After conducting normality test, the next step is to perform t test analysis. T test analysis is performed by using nonparametric t test because the data is not normally distributed. The nonparametric t test used in this research is Wilcoxon test.

Based on the result of Wilcoxon test, it can be seen that there is a difference between net income levels before and after receiving bank credit. This can be determined based on the result of Wilcoxon test which is significant at α = 0.05. The results of Wilcoxon test are shown in Table 5, Table 6, and Table 7. Table 5 shows descriptive statistics. Table 6 shows the result of Wilcoxon Signed Ranks Test, while Table 7 shows the result of Test Statistics.

**Table 5.**  Descriptive Statistics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variables** | **N**  | **Average Value** | **Minimum Value** | **Maximum Value**  |
| Net income level before receiving bank credit Net income level after receiving bank credit  | 1616 | 9,830,00016,800,000 | 1,900,0002,200,000 | 29,800,00066,000,000 |

Source: Processed from primary data

Description:

N = Number of respondents

**Table 6.** Result of Wilcoxon Signed Rank Test

|  |  |
| --- | --- |
|  |  **N** |
| Negative RanksPositive RanksTiesTotal  |  0a 16b 0c 16 |

Source: Processed from primary data

Description:

 a = Net income level after receiving credit < Net income level before receiving

 credit

 b = Net income level after receiving credit > Net income level before receiving credit

 c = Net income level after receiving credit = Net income level before receiving

 credit

**Table 7.** Result of Test Statistic

|  |  |
| --- | --- |
| **Z Value** | **Significance Level** |
| -3.516 | 0.000 |

 Source: Processed from primary data

 Description:

 α = 0.05

Based on Table 5, it can be found descriptive statistics for the variable of net income level before receiving bank credit and the variable of net income level after receiving bank credit. The average value of respondents net income before receiving bank credit is IDR 9,830,000.00. This value is smaller than the average value of respondents net income after receiving bank credit. The average value of respondents net income after receiving bank credit is IDR 16,800,000.00. The difference on the average value of respondents net income before and after receiving bank credit indicates the benefits of bank credit for the development of MSMEs. There is significant performance difference before and after receiving bank credit.

From descriptive statistics, it can also be seen the difference between minimum value and maximum value of respondents net income before and after receiving bank credit. The minimum value of respondents net income before receiving bank credit is IDR 1,900,000.00; while the minimum value of respondents net income after receiving bank credit is IDR 2,200,000.00. Similarly for the maximum value of respondents net income before and after receiving bank credit, the maximum value of respondents net income before receiving bank credit is IDR 29,800,000.00; while the maximum value of respondents net income after receiving bank credit is IDR 66,000,000.00.

Table 6 shows the result of Wilcoxon Signed Rank Test. Negative ranks with N = 0 indicate that there is no respondent whose net income level after receiving bank credit is smaller than net income level before receiving credit. Positive ranks with N = 16 indicate all respondents whose net income level after receiving credit is greater than net income level before receiving credit. While ties with N = 0 indicate that there is no respondent whose net income level after receiving credit is equal to net income level before receiving credit. In other words, the result of Wilcoxon Signed Rank Test indicates that there is significant performance difference before and after receiving bank credit.

The result of Test Statistics shown in Table 7 supports the explanation of Table 5 and Table 6. Based on the result of Test Statistics, Z value = -3.516 with significance level = 0.000 is significant at α = 0.05. In other words, there is significant performance difference before and after receiving bank credit.

The existence of bank credit provides benefits for the development of MSME metal in Pasir Wetan Village, Karanglewas Sub-District, Banyumas Regency, where the performance of MSME increased. Bank credit is required by metal craftsmen in Pasir Wetan Village to overcome the problem of limited capital in developing the metal processing business. Based on the result of interview, the benefits of bank credit gained by metal craftsmen are that it can increase sales turnover, increase net income, increase the number of labors, increase promotional activities and sales expansion, improve production quality, increase or improve the production equipment, and the extension of location or place of business. Based on the result of interview, it can also be seen that bank credit is considered as a means to cover debt from other places. This indicates that the source of credit or debt for MSME is not only from banking institutions, but also from unofficial institutions or individuals.

MSME often faces problems to access capital. This condition is as stated by International Finance Corporation-World Bank in Micro, Small, and Medium Enterprise Country Indicators that the biggest problem of MSME in 132 countries, including Indonesia is the difficulty to access capital (International Finance Corporation-World Bank, 2010).

 Beck and Cull (2014) also identify MSME access to financial services in Africa. The finding of this research is that large companies have greater access to financial service compared to MSMEs. However, MSME access to financial services is still limited. This condition causes difficulties for MSME to develop, whereas the existence of capital is one of the factors supporting the success of MSME.

The researches conducted by Ou and Haynes (2006), and Yoshino and Taghizadeh-Hesary (2016) indicate that funding is a major factor in the development, growth, and success of MSME. The findings of these researches indicate that access to capital is essential in the process of facilitating the creation of new businesses and in implementing the innovation process of MSME.

The research conducted by Belas et al. (2015) also points out the importance of focusing on credit for funding in an effort to build a business environment for MSME. This research examines the business environment of MSMEs in the Czech Republic and Slolvakia. The research does not only focus on motivational factor, community status, corruption, the present business risk, and business opportunism, but also focuses on credit for funding and the ability to manage financial risk.

The measures that can be taken by the government on improving MSME access to capital are by providing incentives and redesigning existing loan programs. The redesign of existing loan programs is partly related to the interest rate applied by bank on MSME credits. Based on the result of interview, the credit with low interest rate is expected by metal craftsmen in Pasir Wetan Village. The metal craftsmen argue that the current loan interest rate of bank credit burdens them. The metal craftsmen expect bank credit with a fast, easy process and low interest rate.

Responsible and fair accounting information makes it easy for MSME practitioners to submit bank credit to banks. However, submitting a bank credit to a bank is not easy because some MSME practitiones do not care about financial reporting in their business processess. Some MSME practitioners do not understand about accounting. They have less daily work to manage accounting books and they do not have enough budget to hire an accountant (Asaidah and Izzaty, 2020).

**CONCLUSIONS**

The result of this research indicated that there was a significant performance difference of metal craftsmen in Pasir Wetan Village, Karanglewas Sub-District, Banyumas Regency before and after receiving bank credit. The performance of metal craftsmen can be seen from net income level. Bank credit earned by metal craftsmen in Pasir Wetan Village was beneficial to increase sales turnover, increase net income, increase the number of labors, increase promotional activities and sales expansion, improve production quality, increase or improve production equipment and extension of location or place of business. The measures that can be taken by the government on improving MSME access to capital are by providing incentives and redesigning existing loan programs. The redesign of existing loan programs is partly related to the interest rate applied by bank on MSME credits.

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**REFERENCES**

Ardic, O.P., Mylenko, N. and Saltane, V. 2011. *Small and Medium Enterprises: A Cross-Country Analysis with a New Data Set*. World Bank Policy Research Working Paper No. 5538, 1-30.

Arregui, R.A. 2012. *Mexico’s Growth Will Come from Entrepreneurship and Small and Medium-Sized Enterprises.* Innovations 7(1), 3-7.

Asaidah, R.R. and Izzati, K.N. 2020. *The Effect of MSME’s Financial Statements Quality to Banking Credit Accessibility.* International Journal of Economics, Business, and Accounting Research 4(3), 157-170.

Ayyagari, M., Beck, T. and Demirguck-Kunt, A. 2007. *Small and Medium Enterprises Across the Globe.* Small Business Economics Vol. 29, 415-434.

Bank Indonesia. 2011. *Kajian Akademik Pemeringkat Kredit Bagi Usaha Mikro, Kecil dan Menengah di Indonesia.* Jakarta: Bank Indonesia..

Beck, T. and Cull, R. 2014. *Small and Medium-Sized Enterprise Finance in Africa*. Africa Growth Initiative Working Paper No. 16, 1-37.

Belas, J., Demjan V., Habanik J., Hudakova, M. and Sipko, J. 2015. *The Business Environment of Small and Medium-Sized Enterprises in Selected Regions of the Czech Republic and Slovakia*. Ekonomika a Management 18(1), 95-110.

Berisha, G. and Pula, J.S. 2015. *Defining Small and Medium Enterprises: A Critical Review*. Academic Journal of Business, Administration, Law and Social Sciences 1(1), 17-28.

International Finance Corporation-World Bank, 2010. *Micro, Small, and Medium Enterprises around the World: How Many are There and What Affects the Count?*. MSME Country Indicators 2010.

International Labour Organization, 2015. *Small and Medium-Sized Enterprises and Decent and Productive Employment Creation.* International Labour Conference 104/1V.

Kementerian Koordinator Bidang Perekonomian Republik Indonesia. 2021. *UMKM Menjadi Pilar Penting dalam Perekonomian Indonesia.* <https://ekon.go.id/publikasi/detail/2969/umkm-menjadi-pilar-penting-dalam-perekonomian-indonesia> Accessed on March 9, 2022.

Kuncoro, M. 2003. *Metode Riset untuk Bisnis & Ekonomi: Bagaimana Meneliti dan Menulis Thesis*. Jakarta: Erlangga Publisher.

Mulyati, H. 2010. *Analisis Karakteristik UKM Jaket Kulit di Kabupaten Garut dengan Menggunakan Model Diamond Porter.* Jurnal Manajemen dan Organisasi 1(1), 30-39.

Ou, C. and Haynes, G.W. 2006. *Acquisition of Additional Equity Capital by Small Firms - Findings from the National Survey of Small Business Finances*. Small Business Economics 27(2), 157-168.

Sujarweni, V.W. 2015. *Statistik untuk Bisnis dan Ekonomi*. Yogyakarta: Pustaka Baru Press Publisher.

Taufiq. 2006. *Penggunaan Dana Kredit UKM Terhadap Peningkatan Usaha (Studi Pada UKM Sandal dan Sepatu Desa Wedoro Waru Sidoarjo).* Jurnal Ilmu-Ilmu Ekonomi6(2), 125-134.

Yoshino, N. and Taghizadeh-Hesary, F. 2016. *Major Challenges Facing Small and Medium-Sized Enterprises in Asia and Solutions for Mitigating Them*. Asian Development Bank Institute Working Paper No. 564, 1-19.