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The Convergence of Beta Credit for Micro, Small and Medium Enterprises (MSMEs) in Indonesia's Provinces

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Abstract

The success of SMEs is determined by the business capital and able to give value added to the business more productively. Various financing pattern schemes for SMEs have been provided in various regions and all economic sectors. However, the development of SMEs credit is still concentrated in several regions in Indonesia this can lead to inequality in the growth of SMEs. This study aims to analyze the convergence of absolute beta and conditional beta in the Provinces in Indonesia and calculate the half-time or time required to achieve steady-state conditions of the SME credit convergence process. Convergence test used is beta conditional convergence and absolute convergence with the monthly time period during 2017.1 until 2017.7. The determinant of SMEs convergence of credit in Indonesia is a number of third-party funds. The model used is dynamic panel data regression and the estimation method used is Arellano-Bond Generalized Method of Moment (AB-GMM). The results of the study show that during the study period, there has been a convergence credit process in Indonesia for both absolute and conditional convergence models. The conditional beta-convergence model provides a smaller beta value than the absolute model. The speed of credit growth convergence between provinces in Indonesia with half-time of 6.94 months for the absolute model and the half-time of 6.96 months for the conditional model

Introduction

Small and Medium Enterprises (SMEs) is one of the potential sectors contributing to national economy growth through the investment activity in productive sectors. SMEs contributes significantly to national income in as much as 53.6% out of Indonesia total Gross Domestic Products (GDP). The Multiplier effect of SMEs growth provides additional values by absorbing the national labors up to 97.3% in line with the increased numbers of SMEs reaching 99.99% out of the total unit of enterprises in Indonesia (Central Bank of Indonesia, 2009). During the economy crisis, SMEs show survival evidences since they make use of local resources unaffected by global macroeconomy instability.

SMEs benefit from the quantity, however classical problems of funding remain. The main cause of SMEs problem is financial access to the banks. At present, the SMEs finance in Indonesia reaches only 6.9% of Gross Domestic Product and is considered as the lowest position compared to those of other ASEAN countries with only 23.1% of SMEs having access to Banking. Credit distribution in 2016 reached 857 billions or 19.4% from the total national banking credit, which increases 8% compared to that of 2015. Based on its sectors, the biggest SMEs credit market is trading, real estate and farming. Meanwhile, the highest average growth of 11.9% belongs to the trading sectors. The distribution of SMEs credit is still concentrated in Java and Sumatra Island dominating as much as 58% and 19.7% respectively. In contrast, the distribution for Sulawesi, Kalimantan, Bali-Nusa Tenggara, and Maluku-Papua is relatively low with 7.2%, 7.0%, 5.7% and 2.3% respectively. Such condition is triggered by banking infrastructures availability which mostly located in Java and Sumatera (Central Bank Indonesia, 2017).

KUR (People's Business Credit) distribution increases due to the incline of its interest rates from 12% to 9%, which then increase the distribution from 30 trillions to 100 trillions rupiah in 2016. The realisation of KUR distribution in 2016 reaches out 94.4 trilions or 94.4% from the target. KUR distribution quality is good with low Non Performing Loan (NPL) as much as 0.4%. However, the distribution is still concentrated on particular areas and sectors specifically trade and agriculture. Based on areas of distribution, highest number of distribution is in Central Java with 16.9 trillion rupaihs, followed by East Java with 14.6 trilion, and West Java with reaching 11.9 trillions. For areas outside Java, the highest number of distribution is found in South Sulawesi reaching 5.1 trillions and North Sumatera with 4.3 trillion (Central Bank of Indonesia, 2017).

Micro, Small and Medium Enterprises (MSMEs) credit distribution in Indonesia remains focused on particular areas in Java Island. The low distribution in outside Java are in line with Solow's (1956), Baumol's (1986) and Barro's and Xavier-Sala-i-Martin's (1995) hypothesis on inter regions convergence growth. Growth Convergence is an important factor for the development where in the long term period, not only the similar level of growth but also the similar income will be achieved. Growth convergence is determined by the growth of credit particularly for MSMEs as one of sector triggering national economy growth. MSMEs credit convergence in the regions provides polarization for economy growth in the areas of Indonesia.The paper aims at analyzing the absolute and beta convergence of MSMEs in Indonesia's provinces and calculating half time or time allocated to reach steady state condition of credit growth in such areas.

Literature Review

Based on the regulation Number 20 Year 2008, the MSMEs existence in Indonesia aims at growing and developing the business to develop national economy based on fair economy democracy. The MSME empowerment objectives include a) realizing a balance, developing and fair national economy structure; b) growing and developing the MSMEs' ability to be a firm and independent enterprises; and c) improving the role in the regional development, creating employment, balance of income, realizing economy growth and alleviating poverty.

The criteria of MSMEs are as follows:

a. Having net worth of no more than 50,000,000 (five millions rupiah) excluding land and business properties or

b. Having annual sales profit of no more than 300,000,000 (three hundred millions rupiahs).

The criteria of small enterprise include:

a. Having net worth of more than 50,000,000 (five million rupiahs) but no more than 500,000,000 (five hundred million rupiah) excluding land and business properties; or

b. Having annual sales profit of more than 300,000,000 (three hundreds million rupiah) and no more than 2,500,000,000 (two billion five hundred million rupiah)

The criteria of Middle Enterprises are:

a. Having net worth more than 500,000,000 (five hundred million rupiah) to 10,000,000,000 (ten billion rupiah) excluding land and business properties; or

b. Having annual sales profit more than 2,500,000,000 (two billion five hundreds million rupiah) to 50,000,000,000 (fifty billion rupiah).

There are various MSMEs definitions in several countries. World Bank mentions that MSMEs are enterprises with at least 30 employees and have annual income of US$ 3 million with assets of no more than US$ 3 millions. In the United States, MSMEs are undominant industry in its sectors and has employees of less than 500 people. Most European countries define MSEs as an enterprise with 10-40 employees and with an annual income of 1 to 2 million Euro, or when the employees are less than 10 person, it is categorized as household business. Meanwhile in Japan, MSME is defined as manufacturing industries and retail or service with 54-300 employees and with the capital of ¥ 50 million to 300 million. In several East Asia Countries, MSME is entriprises with 10-15 employees (Thailand), or 5-10 employees (Malaysia), or 10-99 employees (Singapura), with the capital of approximately US$ 6 million.

Caloghirou et al (2004) analyzed the impact of industry and specific factor towards the manufacturers' performance both in MSMEs and bigger enterprises. The study showed that there is a low impact from the industry to MSMEs unlike the big enterprises. Financial and marketing as well as the capability became factor affecting the MSME's performance On the other hand, MSMEs had important mission in economy sector. MSMEs benefitted more from its marketing than that of technology. Inforegio (2000) stated that MSMEs had potential not only creating employment but also played an important role for the development. MSMEs was considered as more flexible, faster and more adaptive compared to bigger enterprises. Meanwhile Audretsch (2000) mentioned that MSMEs produced a very small input in the economy scale. Minimum Efficient Scale (MES) caused inefficiency. Hence, technology role became crucial to develop the MSMEs performance and to survive in the industry. The rise of more innovative new start ups businesses becomes the main factor to improve MSME's performance and competitiveness (Duarte, 2004).

Several studies about the MSMEs access in finance have been done in several countries. However, there are still few researching the MSME's credit convergence in the regions of a country. Abdulaziz et al. (2013) state that the financial access is important to develop sustainable growth for creating MSMEs profitability through innovation process. Balogun et al's study (2001) exposed the impact of credit access of MSMEs in South Africa in the construction industry using binary logistic regression by observing the demography variable impact to credit access. The finding indicates that SME contractors in South Africa sustained their enterprise's characteristics or what so called personnel characteristic to attract investment particularly in finance.

Furthermore, NKuah et al. (2013) argue that credit access is a crucial matter for MSMEs growth and sustainability. The government's role through the policies in the financial sectors such as increasing the MSMEs credit becomes absolutely important. The access of MSMEs finance in developing countries is still challenging. NKuah et al's study (2013) in Ghana demonstrates the gap in credit access in MSMEs. Positive relation existed between business attributes and credit acess including financial activities such as business registration, documentation business planning, and asset ownership.

Moreover, Gichuki et al (2014) in his study in Kenya mentioned that MSMEs contributes more than 50% new employment. Applying descriptive method on 241 MSMEs in Kangemi Harambee market, the study found that the main challenges for MSMEs to obtain credit include high cost return, strict warranty, and

small number of guarantors, high cost credit submission and relatively short term credit. Thus, it is important that financial system should be flexible in their credit submission for MSMEs.

Ackah and Vuvor (2011) studied challenges faced by MSMEs in Ghana to access credit from financial institution such as Banks and NonBank. The result shows several barriers faced by MSMEs were warranty, high interest rates and short term payback period that it was difficult to develop businesses. Piabuo et al (2015) investigated the determinant and the impact of credit constraint to MSMEs productivity in Kamerun. The findings revealed that interest rates, company size, the amount of the loan, loan maturity, the amount of warranty and company's legal status were factors of credit constraint faced by MSMEs. Middle Scale Enterprises were prone to face credit constraint compared to small enterprises. The credit constraint resulted in low productivity. Thus, credit bureau, prudential stringency and tax rationalization were required.

Moreover, Nguyen (2014) studied the relation between credit access and the growth of MSMEs in Vietnam. Multinomial logistic was applied to find out the determinant of MSMEs capability to access credit for start-up and operation businesses. Ordinary Least Square estimation was employed to determine the impact of interest rates and Heckman Two Stage Procedure was used to find out the determinant for the influence of MSMEs credit access to the growth. The study shows that the correlation of MSMEs with lenders is crucial to affect its credit access. Generally, MSMEs prefers informal lenders with lower educational background and less experience. There was a significant correlation between business scales and the MSME's credit access. In terms of access credit for the operation, the character of business owner was less affected in obtaining credit. MSMEs preferred to use external and formal finance for big scale manufacturers. The government's warranty and assistance became the primary factors for external financing. Meanwhile MSME's network in accessing the external credit was less affecting compared to that of the start-up period. The access credit did not bring effect to MSMEs growth. Thus, the main factors for MSMEs to grow is internal business capital, export orientation and customers' relation instead of external financing.

Klein (2014) stated that MSME's resistance to crisis, the negative credit supply shock towards MSMEs has adverse effect on the economy due to high share of MSMEs. The worsening economy condition was reflected on the higher borrowing cost and stricter borrowing standard which tends to have worser effect to enterprises relying mostly on external financing to provide fund for day to day operation and investment plan. Kashyap et al (1994), mentioned that the enterprises which depend on the banks or do not have access to bond market as well as high amount of cash reserves tend to reduce significantly the cost of inventory and investment. Meanwhile, Kannan (2010) analyzed the impact of credit to economy recovery from recession related to financial crisis. Based on 21 samples of economy in industrial countries during the period of 1970 to 2004. The study shows that small industries and company with few tangible assets were determined by the relation of lender-borrower, and the company which fewer tradable production grew relatively slow during the recovery process in the period of his research.

Research and Methodhology

Type and Source of Data

The type of data used in this research is secondary data, data panel of combination of time series data and cross section data with monthly period of 2017.1-2017.7 from 33 province in Indonesia. The total observation is 231. The variable used is MSMEs credit (CR) and Third Party Funding (TPF). Data are collected from Indonesia Banking Statistic from Central Bank of Indonesia and Financial Service Authority (FSA).

Method of Analysis

The panel data is a combination of the use of time series and cross section data. Regression using data panel provides excellence compared to standard approach using cross section and time series. Hsiao (1986) mentioned that the use of data panel has primary advantageous compared to cross section or time series data. First, the high number of observation increases the degree of freedom, high variability data and reduces the colinierity among the explanatory variables, resulting in efficient estimation.Second, the data panel provides more information, of which cross section data or time series cannot. Third, data panel can yield a better solution for the inference in dynamic change compared to cross section data.

Panel data is used to observe individual behaviour with different characteristics in a particular period of time. The dynamic panel regression model is a regression model by adding time lag from dependent variable as independent variable. The dynamic panel data model is generally as follows:

$$y_{i,t} = \delta y_{i,t-1} + x'_{i,t}\beta + u_{i,t}$$
$$i = 1,2,...N \ ; \ t = 1,2,...t$$

$u_{i,t}$ is a one direction error component and assumed as $\lambda_i \infty IIDN(0,\sigma_\lambda^2)$.

In dynamic model, y_i is a function of λ_i thus $y_{i,t-1}$ is also function of λ_i. Since λ_i is the function of $u_{i,t}$ there will be correlation amongst regressor variable $y_{i,t-1}$ and $u_{i,t}$, this will cause least square predictor becomes bias and inconsistence, even when it is serially correlated. It means that the use of static panel estimation mode such as OLS on dynamic panel equation model will be biased and inconsistent (Baltagi, 2005). Morevover, to eliminate individual effect, transformation is applied in the form of first difference. To avoid bias and inconsistence in the least square predictor, Anderson dan Hsiao (1982) proposes the estimation method called Instrumental Variabel (IV), which instrumentises the variables correlated with the error. Anderson and Hsiao method was then developed by Arellano and Bond (Arellano and Bond Generalized Method of Moments Estimator) and resulted in unbiased estimation, consistence as well as efficiency for the number of N-series with unlimited period and cross section with high N (Arellano and Bond, 1991; Arellano and Bover, 1995; Blundell and Bond, 1998). The popularity of GMM was resulted from efficient reference with a relatively minimum statistic assumption. GMM potentials are first, that GMM is a common estimator and that it provides beneficial framework for comparison and value. Second, GMM offers simple alternatives for other estimators, particularly maximum likelihood. Generalized Moethod of moment (GMM) is an extension of moment method. GMM equates condition moment from population and samples.

Dynamic Panel Model in this study is Arellano Bond – Generalized Method of Moment (AB-GMM) and is applied to anlyze the MSME's credit determinant and to calculate the MSME's beta credit convergence affected by third party fund. The beta convergence used is the province conditioned in Indonesia. The following is the specification of the model used for conditional convergence as calculated using model specification:

$$\Delta c\hat{r}_{i,t} = \beta c\hat{r}_{i,t-1} + \gamma\Delta dp\hat{k}_{i,t} + \alpha\Delta c\hat{r}_{i,t-1} + v_{i,t}$$

Where, $cr_{i,t}$ MSMEs credit in 33 province in Indonesia, while $dpk_{i,t}$ is the third party fund, and $cr_{i,t-1}$ is MSME's credit in the previous year.

The calculation of beta convergence generates two indicators, MSMEs credit convergence speed and half-life test. MSME credit convergence speed test is intended to calculate the speed of MSMEs credit convergence to reach steady state or equilibrium in which MSMEs among the provinces shares in common.

$$\lambda = -\frac{\ln(\beta)}{T}$$

T is a time period

Half-life test (t*) shows the period of time required to reach the steady state from the MSME credit convergence process or time period needed to reach hal of MSMEs credit convergence process or time to reach half of the MSMEs credit convergence.

$$t = \frac{-\ln 0.5}{\ln(\beta)/T} = \frac{\ln 2}{\lambda}$$

If the null hypothesis is rejected ($\beta < 0$), it can be concluded that the province with high MSMEs credit will experience a decline and convergence of credit. When beta value approaches zero, the MSMEs credit convergence process tends to slow down.

Findings

MSMEs Credit Dynamic in Indonesia

Credit distribution dynamic of MSMEs in Indonesia has experienced tardiness since 2013, and increased in 2016. The highest credit growth in Eastern Indonesia (henceforth EI) especially in Bali and Nusa Tenggara reached 17.1% compared to the previous year in 2015 yaitu 14.1% respectively. The increase in credit growth of MSMEs in EI was more likely contributed by trade or business sectors of above 60% out of the total numbers of MSMEs in EI. The growing number of MSMEs credit in trade sectors also occurred in other islands in Indonesia such as Java and Kalimantan with the growth of 8.8% and 7.1% respectively in 2016. It increases compared to that of 2015 with 8.2% and 6.3%. On the other hand, MSMEs in Sumatera Island experienced turdiness from 5.8% in 2015 to 5.2%. The growth of MSMEs credit distribution entails quality improvement as reflected in the improvement of Non Performing Loan (NPL) quality for MSMEs credit almost all areas (Bank Indonesia, 2017).

From the aspect of banking financial source, the Third Party Fund (henceforth TPF) increased in 2016. The highest TPF growth occurred in Java Island reaching 10.7% (yoy), which is higher than the realization of TPF in 2015 with 7.5%. The growth of TPF also increased in almost every areas except in Sulawesi, Maluku, Papua and Bali-Nusa Tenggara which experienced a slow growth. The TPF increased due to savings and deposit, meanwhile the current account grow slowly. TPF growth higher caused Loan to Deposit Ratio (LDR) which decreased mostly in Java areas from 89.8% in the end of 2015 to 87.2% in 2016. It resulted from the concentrated distribution in Java, meanwhile the demand of credit in Java in 2016 were relatively limited. On the other hand, the LDR ratio in areas outside Java Island was relatively high exceeding more than 100%. Banking LDR in EI and Sumatera reaches 102.6% and 100.1%, and Kalimantan with 91% respectively. High LDR in EI mainly occurred in Sulawesi with (135.9%), while in Bali-Nusa Tenggara and Sulawesi, Maluku and Papua were still below 100% (Bank Indonesia, 2017).

The policy framework for MSMEs development comprised four main principles including: (1) MSMEs economy capacity improvement; (2) the increase in funding and financial access for MSMEs, (3) the increase in market access for MSMEs; and (4) improvement on coordination and collaboration amongst institutions. Such framework was exposed in several strategies: (1) encouraging MSME's productivity, competitiveness and innovation; (2) strengthening the infrastructures, capacities and policy instruments; (3) facilitating market expansion; (4) improving collaboration effectivity and information system.

The strategy for improving financing and financial access for MSMEs were established by strengthening the policies, infrastructures and capacity. One of the Central Bank of Indonesia's policies intended to support MSME's financial access is the stipulation of 20% MSMEs credit ration requirement for common banks. The ratio had to be fulfilled gradually by the bank with minimum ration of 10% in the end of 2016 and increased to 15% at the end of 2017. To escalate the effectivity, the stipulation was then followed by incentive and disincentive (Central Bank of Indonesia, 2017).

The financing for the MSMEs was not yet evenly distributed and did not focus on particular economy sectors. It was still dominated by particular economy sectors such as trading, whereas the agricultural and and fisheries sectors received low financing. The attempt to prompt an improvement on MSMEs financing access was done in several sectors not only in trading but also other sectors such as the development in infrastructure such as the provision of standardized financial transaction recording. The study by Aldaba (2012) in the Philippines demonstrated that the obstacles in accessing credit for MSMEs was the track record restriction, collateral, inadequate financial report and MSME's business plan. Therefore, Central

Credit Information Corporation was necessarily required to overcome assymetrical information, change the bank's mindset and introduce non-traditional approach in MSME's financing through training and capacity building to improve financial literacy and financial management capacity.

To access the market, considering that not all MSMEs has access to market and related to wider supply chain, it is important to facilitate the marketing for MSME's products both online and offline such as MSME's products exhibition to introduce for a wider national scope. An attempt to develop market through e-commerce marketing aims at reaching wider market. Moreover, to expand the MSMEs access to Global Value Chain, collaboration and coordination among several related parties to empower MSMEs becomes of importance to work out the problem complexity faced by MSMEs.

MSME Credit Convergence in Indonesia

Convergence is a catch up process in areas with tardiness to grow faster than areas with high growth. Barro (2000) mentioned that absolute convergence in each area has the same characteristics depending on its capital capacity. In terms of capital mobility, lower capitalization compared to employement reduces capital intensity in less developed countries.

Beta convergence in MSMEs credit in 33 Indonesia provinces is divided into absolute and conditional beta convergence. The absolute beta convergence does not depend on the characteristics of each observed objects due to different economy condition and convergence in the same levels. On the other hand, the conditional beta convergence of each observed object reaches the steady state depending on the character and other factors of each areas.

Table 1: The Estimation result of beta absolute convergence of MSME's credit in Indonesia

Dependent Variable : D(CR)

Independent Variable	Coefficient	t-Statistic (Probability Value)
CR (-1)	-0.497	-24.385 (0.000)
D(CR)(-1)	-0.171	-7.722 (0.000)

J-Statistic = 8.563 ; Prob.-value = 0.381
Uji Arrelano-Bond : AR (1) m-stat = -0.489; Prob.-value = 0.625
  AR (2) m-stat = 0.520; Prob.-value = 0.601
Speed of Adjustment λ (%/month) = 9.98%
Half-life (month) = 6.94

Source: Data processed, 2017

The estimation using GMM Arellano-Bond two step estimator indicated significant parameter with p-value as much as 0.000 in each variable independent. Dynamic panel model with GMM Arellano-Bond approach met the best criterion model statistically in terms of consistent and valid instrument variable. The residual diagnostic Arellano-Bond (AB) test on m_1 and m_2 showed p-value of 0.625 and 0.601 or did not reject null hypothesis. The estimation can be stated as consistence and there was no authocorrelation on the first order error first difference.

On the other hand, the absolute beta convergence value showing less than null indicates that the process of MSMEs credit convergence process in Indonesia with other variables was considered constant. Such condition reflects the MSMEs credit convergence process in which areas with low MSMEs credit were able to be convergent on relatively similar growth as other areas. However, half life absolute beta convergence model demonstrated a quite high value of 6.9 months time required to reach the steady state from convergence process. In other words, it is the time needed to reach half of the convergence.

The estimation result using GMM Arellano-Bond two step estimator indicated a significant parameter with p-value of 0.000 in each independent variable. The dynamic panel method with GMM Arellano-Bond approach met the best model criteria statistically by being consistent with valid instrument variable. The residual diagnostic Arellano-Bond (AB) test on m_1 and m_2 indicated p-value of 0.419 and 0.676 or did not reject null hypothesis. Thus, the estimation was considered consistent and autocorrelation did not occur in the first order of error first difference.

Table 2: The estimation result of MSMEs Conditional Beta Convergence Credit in Indonesia

Dependent Variable : D(CR)		
Independent Variable	Coefficient	t-Statistic (Probability Value)
CR (-1)	-0.498	-21.119 (0.000)
D(CR)(-1)	-0.165	-6.621 (0.000)
D(TPF)	-5.956	-4,885 (0.000)
J-Statistic = 8.498; Prob.-value = 0.291		
Uji Arrelano-Bond : AR (1) m-stat =-0.807; Prob.-value = 0.419		
AR (2) m-stat = 0.418; Prob.-value = 0.676		
Speed of Adjustment λ (%/month) = 9.96%		
Half-life (month) = 6.96		

Source: Data processed, 2017

Meanwhile, the cooeficient value of absolute beta of less than null indicated that the process of MSMEs credit convergence occurred in Indonesia with the assumption of other constant variables. Compared to absolute beta convergence model, conditional beta convergence had lower coefficient value. Such condition indicates that MSMEs credit convergence process occurred, in which areas with low credit managed to be convergent towards other areas' similar growth. Convergence also demonstrated lower differential credit with dense convergence line during research period until long term balance. However, the half-life absolute beta convergence model showed significantly high value of 6.96 months period required to reach steady state from convergence process or the required time to reach half of the convergence.

Conditional beta convergence had only slight difference in its halftime with 0.02 month faster than that of absolute beta convergence model. Conditional beta convergence was significantly faster to adjust than the absolute model. It indicated that there were other factor influencing the rapidity of adjustment to reach MSMEs credit convergence amongst the areas in Indonesia. The implicated result from MSMEs convergence credit in Indonesia was that in general, areas of Indonesia experienced credit polarization in relatively short term of less than one year. Therefore, an attempt to improve MSMEs internal performance and credit financing massively provided catch-up process in the areas and national economy growth. It is necessary to balance between internal strengthening in improving competitiveness and financing as the external one.

Conclusions

Convergence indicates smaller MSMEs credit differential with denser convergence line during research period to long term balance. MSMEs credit first lag variable and third Party Fund (TPF) influenced significantly to MSMEs credit in Indoensia with half-life conditional and absolute beta convergence requiring time of less than a year to reach steady state from process convergence or time allotted to reach half of the convergence with convergence speed of 9% per month. Conditional beta convergence was not much different compared to absolute beta one. The difference lies in its faster half time than that of absolute convergence. However, conditional beta convergence has faster speed compared to absolute one, meaning that there was other factors affecting the adjustment speed to reach MSMEs credit convergence in the areas of Indonesia.

References

Abdulsaleh, Abdulaziz M. & Andrew C. Worthington. (2013). Small and Medium-Sized Enterprises Financing: A Review of Literature. *International Journal of Business and Management.* Vol 8 No.14.

Ackah, John & Sylvester Vuvor. (2011). *The Challenges faced by Small & Medium Enterprises (SMEs) in Obtaining Credit in Ghana.* Master Thesis School of Management.June

Aldaba, Rafaelita M. (2012). *Small and Medium Enterprises' (SMEs)Access to Finance: Philippines.* Discussion Paper Series No. 2012-05. Philippine Institute for Development Studies.

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Anderson, T.W., & Hsiao, C. (1982). Formulation and Estimation of Dynamic Models UsingPanel Data. *Journal of Econometrics*, 18, 47-82.

Arellano, M., & Bond, S. (1991). Some Test of Spesification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations. *Review of Economic Studies*, 58, 277 97.

Audretsch David B. (2000). *The economic role of Small-and Medium-Sized Enterprises: the UnitedStates.* Institute for Development Strategies.

Balogun, Olanrewaju Abdul, Ansary Nazeem & Justus Ngala Agumba. (2016). Determinants Predicting Credit Accessibility within Small and Medium-Sized Enterprises in the South African Construction Industry. *Creative Construction Conference 2016*, CCC, 25-28 June.

Baltagi, B.H. (2005). *Econometric Analysis of Panel Data*. 3rd Edition. Chicester :John Wiley & Sons Ltd. West Sussex.

Bank Indonesia. (2009). *Hasil Kajian Kredit Konsumsi Mikro, Kecil dan Menengah untuk Kegiatan Produktif*. Direktorat Kredit, BPR dan UMKM. Desember.

Bank Indonesia. (2017). *Laporan Perekonomian Indonesia* 2016. Bank Indonesia. April.

Barro, R.(2000). Les facteurs de croissance économiques: Une analyse tranversale par pays. Paris: Economica

Barro,Robert J. & Xavier Sala-I-Martin. (1995). *Economic Growth*. McGraw-Hill ,Inc,US.

Baumol, W. (1986). Productivity Growth, Convergence, and Welfare: What the Long-Run Data Show. *American EconomicReview 75*, 1072-85.

Caloghirou Yiannis, Aimilia Protogerou, Yiannis Spanos, & Lefteris Papagiannakis. (2004). *Industry-Versus Firm-specific Effects on Performance: Contrasting SMEs and Large-sized Firms.* EuropeanManagement Journal Vol.22, No.2 pp.231-243, 2004.

Duarte, Nelson. (2004). The Role of SMEs for Development: A Literature Review. *Paper submitted to ERSA 2004 CONGRESS*.

Gichuki, Jane Anne Wangui, Dr.Agnes Njeru & Ondabu Ibrahim Tirimba. (2014). Challenges Facing Micro and Small Enterprises in Accessing Credit Facilities in Kangemi Harambee Market in Nairobi City County, Kenya. *International Journal of Scientific and Research Publications*. Volume 4, Issue 12, December.

Inforegio. (2000). Documents – Official Texts. *Sixth periodic report on the social and economic situationand development of regions in the European Union.* Available online.<http://www.inforegio.org/wbdoc/docoffic/official/radi/page68%5Fen.htm>.

Kannan, P. (2010). Credit Conditions and Recoveries from Recessions Associated withFinancial Crises. *IMF Working Paper* 10/83 (Washington: International Monetary Fund).

Kashyap, A., K.O. Lemont, & J. Stein. (1994). Credit Conditions and the CyclicalBehaviour of Inventories. *Quarterly Journal of Economics* 109, pp. 565–592.

Klein, Nir. (2014). Small and Medium Size Enterprises, Credit Supply Shocks, and Economic Recovery inEurope. *IMF Working Paper European Department*. June.

N.Kuah, Joseph Kofi, John Paul Tanyeh & Kala Gaeten. (2013). Financing Small and Medium Enterprises (SMEs) in Ghana: Challenges and Determinants in Accessing Bank Credit. *International Journal of Research in Social Sciences*. Vol. 2 No. 3 July.

Nguyen, Nhung. (2014). *Credit Accessibility and Small and Medium Sized Enterprise Growth in Vietnam.* Thesis Master of Commerce and Management Lincoln University.

Otoritas Jasa Keuangan. (2017). *Statistik Perbankan Indonesia*. Otoritas Jasa Keuangan. Juli.

Piabuo, Serge Mandiefe, Francis Menjo Baye dan Julius Chupezi Tieguhong. 2015.   Effect of Credit Constraints on the Productivity of Small and Medium-Sized Enterprises in Cameroon. *MPRA Paper* No. 67135. 22 June.

Solow,Robert M. (1956). A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics* 70(February):65-94.

Undang-Undang Republik Indonesia. (2008). *Usaha Mikro, Kecil, dan Menengah.* Kementerian Hukum dan Hak Asasi Manusia Republik Indonesia. Juli.

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FINAL GRADE

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GENERAL COMMENTS

Instructor