

## SMALL, MEDIUM, MICRO ENTERPRISES, AND FINANCIAL GROWTH CYCLE

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### ABSTRACT

*Research on small, medium, and micro-sized enterprises (SMMEs) is considered interesting. This study attempts to examine the existence of external financing on micro, small and medium enterprises in Jogjakarta, especially to support the existence of The Financial Growth Cycle Model proposed by Bergel and Udell (1998). This model argues that, as the enterprises getting mature in terms of age, size and published information, the external financings are gradually employed. Besides that, this study also examines the policy implication regarding the existence of Financial Growth Cycle Model. Using multinomial logistics regression, 100 of micro, small, and medium sized-enterprises in Jogjakarta are analyzed. The result shows that micro, small and medium-sized enterprises in Jogjakarta have a high tendency to use internal financings rather than external ones. This evidence is due to the major characteristics of the sample, which they are considered under developed or immature. Moreover, the results suggest that the Financial Growth Cycle Model is supported. The result also suggests that microfinance institution should follow three strategies to provide source of capital. Those strategies are market segmentation, loan portfolio, and assisting program for SMMEs.*

**Key words:** *Small-medium-micro enterprises, financial growth cycle model.*

### INTRODUCTION

Studies on Small, Medium, and Micro-Sized Enterprises (SMMEs) become a focal concern today due to their significant roles for the national economy. So far, several studies on the SMMEs have focused on their financing aspects as the main issue (Terpstra and Oslon, 1993) particularly, in the subject of best-fitted capital structures of the SMMEs (Coleman, 2000; Van Auken and Neeley, 1996).

In Indonesia, in spite of their significant contributions, the SMMEs undergo limited capital resources to grow. This limitation makes them stunted. Costly research and development make them produce low quality products and cannot compete in the global market. The government issues programs provide financial resources but the SMMEs do not optimize the benefits because of several reasons. Firstly, the SMMEs take the issue of risk conservatively (Aron-

off and Ward, 1997). They are mostly sole-proprietorships (or owned by families) and aimed for providing an individual prosperity. Inaccurate decision-making of business financial strategies does not bring the enterprises and their owners to achieve the aim. Secondly, the SMMEs prefer internal capital resources (from families and relatives) to external capital resources, for example from banks because of their fear of a paying-inability (default risk). This debilitates them to cope with the highly competitive business world. The last is a shortage of collaterals as a major requirement for the SMMEs to get external capital resources. Their small-scaled operations make them undergo a limited ability to give collaterals in the form of fixed assets.

Theoretically, SMMEs dependence on the internal capital resources eventually decreases when they grow well. According to *Financial Growth Cycle* model (Berger and

Udell, 1998), the choices of the SMMEs for capital resources will enlarge along with their upturn, the increase of their fixed assets, the raise of their sales, and information publication of their existence and operations. These factors drive the SMMEs to leverage their capital resources. The internal capital resources slowly begin to combine with joint-venture capitals and eventually with stocks and long-term debts. The theory of Financial Growth Cycle helps unveil the need of the SMMEs to get capital facilities suited with their characteristics in every development phase. During their early growth, the SMMEs need a small amount of external capital resources or capital without collaterals. In later development phase, obtaining numerous external capitals become more possible since the collateral assets are sufficiently gathered. Romano, Tanewski, Smyrnios (2001), Hall, Hutchinson, and Michael (2000) support this idea. They state that, the characteristics of every development phase of the SMMEs influence their choices for capital resources.

This research aims to study the existent financing resources of the SMMEs in Indonesia through the variation of their capital structures based on the model of Financial Growth Cycle. Several factors, which influence the capital variations that are size, age, and published information of the SMMEs, are explored. This research expectedly gives empirical evidence to the Financial Growth Cycle Model and informs the government the need of the SMMEs for varied programs to get capital resources.

Indonesia experience shows that many programs are initiated to provide capital resources for SMMEs (as shown in Table 1). However, some of the programs are considered to have failed due to some reasons.

Firstly, micro loan programs are generally funded by using government subsidy. This scheme created interest rate volatility as well as distortion on financial market. Secondly, the micro loan scheme is not supported by marketing infrastructure, which is important for early stage of business. Thirdly, most of the loan requires extra collateral assets such as vehicles or

houses, which are sometimes inappropriate type of business stage. These experiences show that many micro loan programs are set without considering the characteristic of business stage. This research further qualitatively explores the implication of the existence of Financial Growth Cycle in Indonesia for local government policy.

## **THEORITICAL FRAMEWORK AND HYPOTHESIS**

### **SMMEs and Capital Structure Preferences**

Myers (1984) through *Pecking Order* model argues that different choices of capital resources are because of a limited access to get external capital resources, namely stock markets. This model tells that a limited access to external markets triggers a dominant choice to use internal capital resources. Many SMMEs use this model to select capital resources.

Berger and Udell (1998) provide empirical support for the strong dependence of SMMEs on internal capital resources. Their research unveils that SMMEs in America dominantly use capital resources from commercial banks and private financial institutions. These banks and the institution use family ties (close relationship) and trust to establish business contracts with the SMMEs. This pattern of relationship also helps these financial institutions obtain SMMEs's financial report easily.

### **SMMEs and Financial Growth Cycle Model**

Berger and Udell (1998) develop the theory of *Financial Growth Cycle*, which is supports and extends the previous theories of capital structure introduced by Myers (1984). This theory particularly determines the types, choices, and quantities of capital resources of SMMEs based on their development phases. Every phase has three determinant variables, namely the size, age, and published information of SMMEs. Based on these variables, *Financial Growth Cycle* theory identifies six types of capital resources used by SMMEs.

The first two-types are initial insider fi

**Table 1**  
**The Variety of Micro Loan Policy**

Year	Micro loan Policy	Aim
<b>Part I (1960-2000):</b> Food Security	Mass Supervision ( <i>Bimbingan Massal/BIMAS</i> ) and Community Intensification ( <i>Intensifikasi Massal/INMAS</i> ) Various micro loan programs for agriculture, poultry, fishery and husbandry	Provide micro loan especially for farmers. This program requires all farmers to take a loan package set by the government.
	Loan for Small-Scale Enterprise ( <i>Kredit Usaha Kecil/KUK</i> )	Provide micro loan for small-scale enterprise. The amount is from 50 million to 500 million rupiah.
	Loan for Small-Scale Investment ( <i>Kredit Investasi Kecil/KIK</i> )	Provide mid and long term micro loan (up to 5 years) particularly for new business start-up and business expansion. The amount of the loan is up to 5 million rupiah.
<b>Part II (1980-Present):</b> Poverty Alleviation	Loan for Permanent Working Capital ( <i>Kredit Modal Kerja Permanen/KMKP</i> )	Provide mid and long term micro loan (up to 3 years) for continuous business operation.
	Loan for Micro and Small Enterprise ( <i>Kredit Usaha Mikro dan Kecil /KUMK</i> )	Provide micro loan for micro and small enterprises. This program was funded by government bond.
	Loan for People's Enterprise ( <i>Kredit Usaha Rakyat/KUR</i> )	Provide micro loan for micro enterprises which are feasible but not yet bankable.
	Loan for Farmers ( <i>Kredit Usaha Tani/KUT</i> )	Revision of BIMAS and INMAS into simpler and accessible micro loan program.
<b>Part III (2000-Present):</b> Revision	Loan for Food and Energy Security ( <i>Kredit Ketahanan Pangan</i> )	
	National Program for Public Empowerment ( <i>Program Nasional Pemberdayaan Masyarakat/PNPM</i> )	National program for poverty alleviation through revolving loan.

nancing and angel financing for newborn SMMEs which are still small, immature, and not known to public. These forms of financing are slowly shifted to the second two-types, which are venture capitals and medium-term debts, since SMMEs reach their medium size, medium age, and have average information published to public. Approaching their bigger scale, the capital sources are mostly on the third two-types of financing which are public financing such as stocks,

obligations and derivatives, and long-term debts from banks.

**SMMEs' Characteristics and Financial Growth Cycle Model**

Limited access of SMMEs to external markets is inseparable from their characteristics. Berger and Udell (1998) and Wetzel Jr. (1994) say that limited information of SMMEs' existence and performance causes external investors and capital providers view

it risky to invest in the SMMEs. Size of the SMMEs influences the quantity and availability of published information of their existence and performance. The bigger they are, the more well known their images become, which necessitate themselves to disclose their existence and performance to public. However, in general, SMMEs do not have such public image and disclosure. This triggers the dominant use of internal capital resources in many SMMEs. In the perspective of Financial Growth Cycle model, the bigger the SMMEs are, the more dominant they use public capital resources and long-term debts. This argument is the basis of the following hypothesis.

*H<sub>1</sub>: Bigger SMMEs tend to use public capital resources and long-term debts.*

According to Pecking Order theory, the age of SMMEs influences their choices for capital resources. Mature SMMEs usually have a high profitability and a big opportunity to own a high retained earning. These SMMEs inherit several characteristics which support Pecking Order theory. Number of retained earning for personal and family (private) need is significant in mature SMMEs. This leads to a conclusion that, mature SMMEs use internal capital resources more intensively. In practice, however, the argument contradicts with the facts of the SMMEs. Mature SMMEs empirically issue more information of their existence and performance to public. This information attracts external capital providers to invest external capitals in such SMMEs. Romano, Tanewski, and Smyrnios (2001) support this argument and found that only newborn SMMEs depend on internal capital resources. Based on the phenomenon, *Financial Growth Cycle* theory reveals a relationship between capital resources and age of SMMEs which stresses more on a continuity aspect than on a step-by-step process. This continuity begins with owners' capital resources and donations in early age of SMMEs, and then it expands to public capital resources and long-term debts when

SMMEs begin mature. This theory triggers the following hypothesis.

*H<sub>2</sub>: Mature SMMEs tend to use public capital resources and long-term debts.*

As discussed earlier, limited published information of SMMEs' existence and performance obstructs SMMEs to access varied choices of capital resources. This phenomenon is common among SMMEs (Petty and Bygrave, 1993). Another impact of unavailable published information is no external audit for their financial reports and it makes investors difficult to know the quality of SMMEs from poor ones (Berger and Udell, 1998). Modigliani and Miller (1958) call this an information asymmetry. This asymmetry triggers investors and external liabilities providers to charge a high return for their investment, and this causes high cost of debts (Weinberg 1994). Consequently, equities (self-financing strategies) are the major choice of SMMEs. However, in the *Financial Growth Cycle Model*, the growth of SMMEs may shift a dominant use of equities. Growing-big SMMEs necessitate themselves to issue their existence to public. This begins with small scale information in mass media. Several SMMEs start using the Internet even though not for online transactions. Published information in mass media theoretically changes investors' perspectives of the risk to invest in SMMEs. Thus, these publications open an access for external capital resources. Thus, the *Financial Growth Cycle Model* argue that, a growing number of SMMEs' publications in mass media open a wide access for them to use public capitals and a long-term debts dominantly. These concepts are the bases of the following hypothesis.

*H<sub>3</sub>: SMMEs which are known to public tend to use public capital resources and long-term debts.*

### **SMMEs and Microfinance Policy**

Microfinance policy should be addressed for SMMEs appropriately. Since the amount of

capital being provided is generally small, requirements such as bankable must be appropriate as well. However, in practice bankable requirements become the significant barrier to the access of micro loan. The availability of financial report and collateral assets are addressed similarly across stages of business. For example the only proper collateral assets for early stage of business according to Bank Indonesia is the business itself, however the existence of extended collateral assets are persisted.

This condition hence, creates difficulty especially for micro and small enterprises to gain the capital resources.

There are reasons for microfinance policy becomes difficult to access. Firstly, Meagher (2002) in Arsyad (2008) states that there is a tendency that microfinance institution in Indonesia is being institutionalized. Since the purpose of institutionalized is to pursue profitable and sustainable goal, the bankable requirements persist. This main purpose enforces many microfinance institutions to set high collateral assets value as security. Secondly, there is also a tendency to create a very high interest rate of micro loan in order to avoid moral hazard and adverse selection (Stiglits and Weiss, 1981 in Arsyad, 2008). This practice exists especially for business with the mature stage. The interest rate is set as a risk mitigation practices since there is a tendency of moral hazard among mature business to use the capital to be invested into another risky business opportunity. Those two practices hence mitigate the ability of access for capital resources for SMMEs. It is also portrayed the failure to appropriately recognize the characteristic of SMMEs.

## RESEARCH METHOD

### The Population, Sample and Data

The population of this research is all SMMEs in Yogyakarta. The samples are 100 SMMEs from 4 districts and 1 municipality in Yogyakarta Province. There are 20 SMMEs from each region. This research uses two types of data, primary and second-

ary data. Primary data are directly from the respondents as the subjects of this research, which are combined with the secondary data in order to get a better description for both a qualitative and a quantitative analysis. There are two methods to get the primary data, namely questionnaires and interviews to the respondents. The secondary data are from financial reports and published information of the SMMEs.

### Definition of Operational Variables

The dependent variable in this study is types of capital resources used by the SMMEs. To measure this variable, this research uses a categorization of capital types. SMMEs that use equities (self-financing), donations, and grants are category 1. Category 2 consists of SMMEs that use joint-venture capital resources and medium-term debts. SMMEs that use public capital resources and long-term debts are category 3.

The first independent variable is size of SMMEs denoted by SIZE and measured by number of workers employed. The second independent variable is age of SMMEs, which is counted since their establishment until the year of this study is conducted. Information publication of SMMEs denoted by INF, as the last variable, is a qualitative one. It is measured using dummy variable. In this method, 1 is for SMMEs that issue their information and it is identified through printing publications such as advertisements in newspapers, magazines, and electronic publications by radios, televisions, and the internet, 0 is for SMMEs without any published information or publications.

A control variable is employed to test a relational consistency between the dependent variables and the independent variables. The control variable is industrial types or categories of SMMEs, denoted by IND. Galbraith (1983), Harris and Raviv (1991), and Romano *et al.* (2001) states that industries or enterprises running the same business or in the same industrial sector tend to possess a similar capital resource pattern and a similar type of financing strategies. The

variables are measured using dummy variable, with 1 for SMMEs in manufacturing sector and number 0 for those in service sector.

### Data Analysis

This study uses a statistic method called *Multinomial Logistic Regression*. This method is relevant because the data of the dependent variables are qualitative; consisting of multiple categories, while the independent variables as the predictors are both qualitative and quantitative. *Multinomial Logistic Regression* is considered more efficient for predicting the qualitative and quantitative variables simultaneously than a fold-regression method (Neter *et al.*, 1996)

The equation of the multinomial logistic regression mathematically requires one category of dependent variables to be the referential category. It is possible to choose a referential category randomly or based on the highest frequency. In this study, there are three categories of dependent variables. Category 1 is for SMMEs that use equities (self-financing strategies), donations or grants; category 2 is for SMMEs using joint-venture capital resources and medium-term debts. Category 3 is for SMMEs using public capitals and long-term debts. The randomly chosen referential category is Category 1. The equation of the multinomial logistic regression will use a comparison of the probability of non-referential category with the probability of referential category. Thus, the statistic equation model of this research is as follows.

$$\ln \frac{P(\text{Kategori}2)}{P(\text{Kategori}1)} = \alpha + \beta_1 \text{Size} + \beta_2 \text{Age} + \beta_3 \text{Inf} + \beta_4 \text{Ind} + \varepsilon_1 \quad (1)$$

$$\ln \frac{P(\text{Kategori}3)}{P(\text{Kategori}1)} = \alpha + \beta_1 \text{Size} + \beta_2 \text{Age} + \beta_3 \text{Inf} + \beta_4 \text{Ind} + \varepsilon_1 \quad (2)$$

## DATA ANALYSIS AND DISCUSSION

### Descriptive Statistics

The total samples of this research are 100

SMMEs, with 20 SMMEs in every district. These SMMEs are classified into three categories. The first category is those using equities (self-financing strategies), donations or grants. The second category consists of those using joint-venture financing and medium-term debts. The third one consists of SMMEs using public capitals and long-term debts (See Table 1).

From Table 2, the total samples of this research are 100 SMMEs; 66 SMMEs are the first category; 22 SMMEs the second category; and 12 SMMEs the third category. It also describes that most of the SMMEs use equities (self-financing strategies), donations, or grants. Only a few of them use public capitals or long-term debts.

In addition to the categories, the SMMEs samples are classified based on the criteria used to measure the independent variables in order to get a complete description of the sample characteristics. This classification is based on the size, age, information publication (INF), and industrial category (IND) of the SMMEs. Table 3 presents the full characteristics of the samples.

As in Table 3, that majority of the samples are small-sized enterprises which have only 10 to 50 workers. Most of them are home industries, aged from 1 to 5 years old and do not publish their existence in mass media.

### The Result of Multinomial Logistic Regression

#### Goodness of Fit

This test aims to examine if the statistic equation model, which is used to identify the forms of the SMMES financing strategies, is more effective when it is added with the independent variables. The result of the *Goodness of Fit Test* is presented in Table 4 and 5.

The test results in Table 4 evidently shows that adding the independent variables to the statistic equation model produces a better accuracy for predicting financing strategies of the SMMES than if the model consists only of intercepts. This accuracy is

**Table 2**  
**Descriptive Statistics of SMMEs Samples**

Districts	SMMEs Categories			Sum
	Category 1	Category 2	Category 3	
Sleman	17	2	1	20
Kulon Progo	10	6	4	20
Bantul	14	5	1	20
Gunung Kidul	15	4	1	20
Yogyakarta Municipality	10	5	5	20
<b>Total</b>	<b>66</b>	<b>22</b>	<b>12</b>	<b>100</b>

**Table 3**  
**Sample Characteristics**

Criteria	Number of SMMEs	Percentage
<i>Size</i> (number of workers):		
a. 10 until 50 employees	74	0.74
b. 50 to 75 employees	21	0.21
c. 75 to 100 employees	5	0.05
<i>Age</i> (of SMMEs since establishment):		
a. 1 to 5 years	66	0.56
b. 5 to 10 years	24	0.34
c. > 10 years	10	0.10
<i>Inf.</i> (information publication):		
a. Available	7	0.07
b. Not available	93	0.93
<i>Ind.</i> (industrial category):		
a. Manufacturer	84	0.84
b. Service provider	16	0.16

evident in the value of likelihood ratio test final, namely 42.557 that is significant at 0.000.

Table 5 presents the result of Chi-Square test which shows an agreement between the statistic equation model being tested and the empirical data. Based on Pearson value and its deviation, the value is not significant (greater than .05). This attests the agreement between the statistic model and the empirical data.

**Likelihood Ratio Test**

*Likelihood Ratio Model* aims to test the contribution of each independent variable to the statistic equation model. The indicator of this contribution is through the significant value of *Chi-Square* of each independent variable. An independent variable has a sig-

nificant contribution to the statistic equation model if its probability is <0.05. The result of the Likelihood Ratio Test is presented in Table 5.

The test result, as shown in Table 6, indicates a significant contribution of the size of SMMEs to the statistic equation model, so does the age of SMMEs. This contribution is evident in the probability of Chi-Square Test for the size and the age variables, which is lesser than 0.05. The other two independent variables, published information (INF) and industrial type (IND), do not give a significant contribution to the statistic equation model, which is evident in the *Chi-Square* probability of >0.05.

**Parameter Estimates Test**

*Parameter Estimates Model* aims to test the

**Table 4**  
**The Result of *Goodness of Fit* Model**

Model	Model Fitting Criteria		Likelihood Ratio Test	
	-2 Log Likelihood	Chi-Square	Sig.	
Intercept Only	250.672			
Final	167.373	42.557	.000	

**Table 5**  
**The Results of *Goodness of Fit* Model-Data**

	Chi-Square	Sig.
Pearson	178.775	.602
Deviance	164.322	.554

**Table 6**  
**The Results of *Likelihood Ratio* Test**

Effect	Chi-Square	Sig.
Size	7.205	0.011
Age	8.705	0.013
Inf	3.332	0.167
Ind	4.568	0.109

**Table 7**  
**The Results of *Parameter Estimates* Test for Equation 1**

Independent Variable	B	Sig.	Exp (B)
Intercept	7.896	.010	
Size	-1.672	.009	.213
Age	-2.146	.060	.078
Inf	-5.298	.000	.172
Ind	1.701	.153	1.66

**Table 8**  
**The Results of *Parameter Estimates* Test, Equation 2**

Independent Variable	B	Sig.	Exp (B)
Intercept	6.533	.010	
Size	-1.473	.014	.316
Age	-1.984	.017	.168
Inf	-5.298	.500	.182
Ind	1.701	.141	1.477

effect of each independent variable on the dependent variables. The result of this test for each equation is presented in Table 7 and 8.

The test result indicates that for equation 1, the size, age, and published information of the SMMEs affect the SMMEs' probability

to choose a lower joint-venture financing and medium-term debts (a negative coefficient  $\beta$ ) than equities (self-financing strategies), donations, and grants. The influence of these three variables is significant, which is evident in the probability value of  $<0.05$ . The industrial type variable (IND) does not



give a significant influence on the SMMEs' probability to choose a financing strategy.

The test result in Table 8 shows the effect of the size and age of the SMMEs on the SMMEs' probability to use public financing and long-term debts. These effects are significant because the probability are lesser than 0.05. The impendent variables, information publication (INF) and industrial type (IND) of the SMMEs, do not give a significant effect on the probability of the SMMEs to choose a financing strategy.

### Odds Ratio Test (Expected $\beta$ )

The value of *Odds Ratio* shows the effect of the independent variables on the probability ratio of the non-referential variables and the referential variables. If the odds ratio value of the dependent variables is  $>1$ , there is a high effect of the independent variables on the probability of the non-referential dependent variable rather than on the probability of the referential dependent variables. The summary is in Table 9.

The result of the Odds Ratio Test in equation 1 shows that the size, age, and published information of the SMMEs have an odds value which is lesser than 1. This value indicates a lower effect of the three variables on the use of venture financing and long-term debts than on the use of self-financing (equity), donations or grants. These results support hypothesis 1, 2, and 3 of this study. This fact is due to the characteristics of the SMMEs samples: not yet developed (small size), young age, and mostly no information issued to mass media. Thus, based on continuum growth cycle theory, the SMMEs

tend to use equities (self-financing), donations or grants. In the future, when growing well, the SMMEs will use public financing and long term debts increasingly.

The result of the *Odds Ratio* Test in equation 2 shows that the size, age, and published information of the SMMEs have an odds value lesser than 1. This value indicates a lower effect of the variables on the probability of the SMMEs to use public financing and long term-debts than on the probability of using equities (self-financing), donations, or grants. This is the same as the first equation. Thus, hypothesis 1, 2 and 3 are supported by the same argumentation as the one in the first equation.

## Discussion

### Hypothesis Testing

The analysis in the previous section attests that the characteristics of the SMMEs samples have a major contribution to support the hypotheses. This fact is entirely relevant with the real condition of the SMMEs, which almost never use capitals from any medium-term or long-term debts from banks. Several reasons of this policy are related to risk averse. The owners of the SMMEs feel comfort with the current growth (size), the internal financing, or the donations which do not necessitate a return. Other factor which makes the owners chary to develop the SMMEs rapidly is an indefinite market share for their home industry products, which affects their price, cost, volume, order, and supply.

In additions, the analysis indicates the effect of the limited published information

**Table 9**  
**The Results of *Odds Ratio* Test (Expected  $\beta$ )**

Independent Variable	<i>Odds Ratio</i>	
	Equation 1	Equation 2
<i>Size</i>	.213	.316
<i>Age</i>	.078	.168
Inf.	.172	.182
Ind.	1.66	1.477

of the SMMEs on their dependence on self-financing, donations or grants. Their dependence on the equities causes a big difficulty for them to promote their business through mass media, thus they have limited markets. The SMMEs sell their products to middlemen. This system creates a monopoly of price and volume by the middlemen, and makes the SMMEs averse to increase their production volume.

As a controlling variable of the relational persistence between the independent variables, industry category does not give a significant effect because it has no influence on the financing decisions of the SMMEs. All SMMEs in every industry sector consistently use internal funds for their operations, which consist of equities, donations, or grants, as long as external capital resources such as medium-term and long-term debts necessitate a return, a thing which they consider very risky. The influence of the industrial type variable on the financing policy of the SMMEs does not affect the relational persistence between the independent variables and the dependent variables. This fact attests that the industrial-type variable (IND) is not a significant consideration for the SMMEs to decide financing types.

### **Microfinance Policy Implication**

It is suggested that government should design the micro loan policy appropriately. The preference of SMMEs for using the internal resources rather than external one has portrayed that micro loan is ineffective. Akyuwen et al., (2010) stated that it is important for microfinance institution to do the re-orientation. Recent practices demonstrate that microfinance institution does not have a particular grand strategy on micro loan policy which covers the distribution of micro loan that must be reached, type of business should be served and the maximum amount of loan should be given. Microfinance should consider doing the market segmentation strategy. This strategy has two advantages; firstly, it avoids high concentration on one type of business within certain stage

which is usually assumed as productive business. The concentration put microfinance in risky situation due to the great loss when crisis or external condition hit the certain segment of business. Secondly, implementing the segmentation is directly making loan portfolio. By designing such portfolio it is expected that the risk will be mitigated especially the default risk. Moreover designing segmentation also avoid microfinance institution from implementing the rule of "one size fits all", hence noticing the unique characteristics of each stages of business.

Despite of segmentation and loan portfolio, it is also suggested that micro loan policy is accompanied by assisting program for SMMEs. The variables that have been used for this research actually represent some of bankable requirements. Assisting SMMEs in terms of enhancing their capability and productivity will create the possibility of being able to be known by the public through the mass media, hence known and trusted by the external capital resources provider.

### **CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATION**

In general, self-financing (equities), donations, and grants are the principal choices of the SMMEs for financing their business. These SMMEs consider it risky to use capitals from external or (debts) that necessitate a periodical return. This makes them limitedly develop. The effect of the SMMEs' dependence on equities (self-financing) is their stagnant development (ever-small size). The self-financing and the small size make them unable to promote themselves in mass media. This fact theoretically supports the argumentation of the *Financial Growth Cycle Model*, which also attests hypotheses 1, 2, and 3 of this research. The factual evidence, which supports the hypotheses, portrays the characteristics of the SMMEs, namely small size, young age, and no information issued to public.

There are three implications concerning the strategies. Firstly, microfinance institution should design a proper market segmen-

tation strategy for each of the bundle of customer. Secondly, it is also important for microfinance institution to form loan portfolio. Lastly, those two technical strategies should be followed by assisting small, medium, and micro enterprises in terms of enhancing capability and productivity.

*Financial Growth Cycle* model uses several independent variables to test the financing strategy of an enterprise. This research aims to test the persistence of the model to the SMMEs. Several independent variables are subjectively designed (based on the researcher's perspective) to suit with the real characteristics of the SMMEs. The results of this research attest the hypotheses. Further research, however, needs to explore more characteristics of SMMEs because the selection of the independent variables of this research is subjective.

To get a more accurate exploration of the independent variables, a research needs a bigger population that may consist of varied types, sizes, ages, and characteristics of SMMEs. Thus, enlarging the research population is necessary, not only in Yogyakarta Special Province, but also in other provinces that have similar SMMEs characteristics.

In additions, it is important for a further research to explore more controlling variables because the relational persistence and the effect of independent variables on dependent variables are necessary to test a theory. This research only uses one controlling variable, namely the dummy of industrial category, which evidently supports the relational persistence among the variables. The robustness of a tested theory is higher when a research uses several controlling variables. The research population only in Yogyakarta Special Province and one of controlling variable are the limitations of this research.

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