

DEVELOPMENT OF LOCAL-ECONOMIC-DEVELOPMENT SMALL AND MEDIUM INDUSTRIES (LED-SME) IN EAST JAVA

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Abstract

This paper presents the effects of Indonesian government's developmental efforts of assistance and training performed on the growth of LED-SME business units and business performance. Both parameters of the government's assistance and training were used to analyze the impact to the growth and performance of business unit. To achieve a comprehensive result, samples acquired in this research were about 190 entrepreneurs and managers of LED-SME from East Java. Based on the parameters above, there are five hypotheses made to prove the relationship of the assistance and training to the growth and performance of business units. The structural equation modeling (SEM) was carried out to test the hypotheses. The results have shown that the government's developmental efforts through both assistance and training for the LED-SME were capable on increasing growth and performance of business units. On the other hand, government's developmental efforts through only trainings were incapable of directly affecting growth of LED-SME business units and performance. To improve the business unit and performance, the government needs to implement developmental principles of LED-SME with the basis of utilizing local natural resources and also the communities of LED-SME as main suppliers for their local markets. In addition, preservation and development of local cultural and traditional arts also need to be the government's main concern.

Abstrak

Pengembangan Industri Kecil Menengah Penggerak Ekonomi Daerah (IKM-PED) di Jawa Timur. Penelitian ini mengkaji pengaruh pembinaan pemerintah terhadap IKM-PED melalui pendampingan dan pelatihan terhadap pertumbuhan unit usaha dan kinerja usaha IKM-PED. Penelitian ini mengajukan lima hipotesis dengan jumlah sampel 190 pengusaha dan pengelola IKM-PED diseluruh Jawa Timur. Untuk menguji hipotesis penelitian maka dilakukan analisis Structural Equation Modelling (SEM). Hasil penelitian menemukan bahwa pembinaan pemerintah melalui pendampingan terhadap IKM-PED mampu meningkatkan pertumbuhan unit usaha dan kinerja usaha. Sedangkan pembinaan pemerintah melalui pelatihan ternyata tidak mampu secara langsung berpengaruh terhadap pertumbuhan unit usaha dan kinerja IKM-PED. Pemerintah perlu melaksanakan prinsip-prinsip pengembangan IKM-PED yang didasarkan pada pemanfaatan potensi sumber daya alam andalan lokal daerah, masyarakat IKM-PED setempat dan sebagai pemasok utama pasar lokal. Pelestarian dan pengembangan seni tradisional budaya daerah juga perlu mendapatkan perhatian utama.

Keywords: government's assistance and training, growth and performance of business unit

1. Introduction

Government's policy concepts with regard to development of small industries in Indonesia shifted from generalist policies to the local sectors. In "Orde Baru" era the policies were more concerned to a number of selected sectors or industries group with priorities to develop LED-SMEs. Small and medium industries are grouped into four sub-sectors, namely (1) the local-economic-development small and medium industries

(LED-SME), (2) supporting small and medium industries (3) export-oriented small and medium industries (4) new small and medium industries [1].

Each sub-sector has different characteristics and contribution to the development of small industries in Indonesia, and also to the variety of commodities and scope of development areas. Hence, the present research is limited to the development of local-economic-development small and medium industries. The LED-

SME are industries that produced goods and services using primary materials based on utilization of local natural resources and traditional artworks. Those commodities included in LED-SME are grown and developed in rural areas. Missions and objectives of LED-SME development are to accelerate economic recovery and to drive economic activities throughout regions through people's participation at large, so as to accelerate improvement of social welfare in the region [1].

Development of SMEs was often carried out in the form of assistance and training programs. Development programs for SMEs are based on the dynamic changes of the local community. The policies implementation include: (1) Assistance in terms of improving quality of human resources and management; (2) Assistance regarding improvement of quality and production processes; (3) Assistance with regard to access to information; (4) Assistance in terms of developing business networks; (5) Assistance concerning to access to financial sources, raw materials, and domestic/international markets; (6) Assistance with regard to the relationship between social, culture and humanity to the environment; and (7) Assistance regarding to the strategy and infrastructure expansion [2].

Training programs have important roles in supporting SMEs. Even if the SMEs have strong financial support without any financial controls, in the end they would collapse. On the other hand, SMEs with big market without strategic methods of marketing their products and services would face serious problems in achieving their goals [3]. The changing conditions and situations require training programs for all organizational levels. Public and private organizations, including SMEs, should receive continual and periodical trainings [4]. The training programs are related to the performance of SMEs in terms of survival, profit and rate of sales growth [5].

Training program for SMEs can be carried out by private institutions, government offices, consultants, universities and other institutions. The training areas include: (1) Administration, management and human resources trainings; (2) Production process management and quality development trainings; (3) Applied information technology and electronic media trainings; (4) Financial reporting and taxation trainings; and (5) Research and development trainings. There is a significant relationship of government's assistance through development process and level of business performance by estimating rates of sales and employment. Government's assistance programs should be accompanied by a variety of policies that encouraged growth of business units. The growth of business unit structures aims to upgrade SMEs to be more widespread

or larger and independent. Growth of business units is characterized by: (1) growth in number of business units, (2) amount of investment, (3) amount of production, (4) value of sales, (5) number of workers, and (6) percentage of exportable production [2].

Business performance represents the results of work of a business entity. A decrease in performance is often due to delayed implementation of opportunities and delayed decision-making process [6]. Performance assessments can be done in terms of effectiveness, efficiency, productivity, profitability and equity or fairness. Effectiveness is defined as ability of SMEs to produce goods in accordance with the set standards. Efficiency is defined as the extent to which the available resources are used to produce output at a relatively lower cost. Productivity is related to the measurement of how inputs and resources are used to produce output. Profitability is related to overall measurement of financial efficiency. Equity or fairness is aimed at profitability and relative cost aimed at establishing company or customer satisfaction by providing affordable prices [7].

In 2009, East Java has about 1,194,052 LED-SME business units, with 3,066,590 workers, and the production value for each commodity was IDR 12,255,466,000.00. The business types of LED-SME group consisted of 14 commodities: snacks, natural silks, leather tanning, crude palm oils, natural fertilizers, salt, tiles, agricultural machineries, motorization of fishing vessels, boats of less than 100 GT, traditional agricultural machineries, traditional weaving and plaiting.

With regard to number of business units, absorption of workers in these sectors was relatively small, but the impacts of development to the LED-SME was highly strategic in improving performance and strengthening growth structure of the existing business units, especially in rural areas. Therefore, this research aims to analyze and obtain empirical evidence for government's development policies through programs of assistance and training for LED-SMEs and their effects on growth business structure and performance of the LED-SMEs in East Java.

2. Methods

Development policies through assistance and trainings for LED-SME are expected to increase the growth of business units that would ultimately improve performance of the LED-SME. Based on a number of concepts of LED-SME development policies, there is a close relationship between the development patterns undertaken by the government and its effects on the growth of business units and performance of LED-SMEs.

Research hypotheses:

H₁: Assistance for LED-SME has significant effects on growth of business units.

H₂: Trainings for LED-SME have significant effects on growth of business units.

H₃: Assistance for LED-SME has significant effects on performance.

H₄: Trainings for LED-SME have significant effects on performance.

H₅: Growth of business units has significant effects on performance

Patterns of relationship are shown in the research model of Figure 1.

Data was collected by administering questionnaires to entrepreneurs and managers of the LED-SMEs across East Java. A sample of 190 respondents was used in this study. The number of samples was based on sample size guidelines of 100-200, and number of indicators multiplied by 5-10 [8]. Analysis of structural equation modeling (SEM) was conducted to test the hypotheses. Structural equations expressing causal relationships among variables are:

$$Y_1 = \beta_1 X_1 + \beta_2 X_2 + y_1 \quad (1)$$

$$Y_2 = \beta_1 X_1 + \beta_2 X_2 + Y_1 \quad (2)$$

Equation of measurement model specification that determined indicators capable of measuring latent variables and determining a set of matrices that showed hypothesized correlations are:

$$X_{1,i} = \lambda_i X_1 + e_i, i = 1, \dots, 7 \quad (2)$$

$$X_{2,i} = \lambda_{7+i} X_2 + e_{7+i}, i = 1, \dots, 5 \quad (3)$$

$$Y_{1,i} = \lambda_{12+i} Y_1 + e_{12+i}, i = 1, \dots, 2 \quad (4)$$

$$Y_{2,i} = \lambda_{14+i} Y_2 + e_{14+i}, i = 1, \dots, 5 \quad (5)$$

where:

Y_2 : Performance

Y_1 : Growth of business units

β_1, β_2 : Regression weight

X_1 : Assistance for LED-SME

X_2 : Training for LED-SME

y_1 : Disturbance term

λ : Loading factor

E : error

i : index

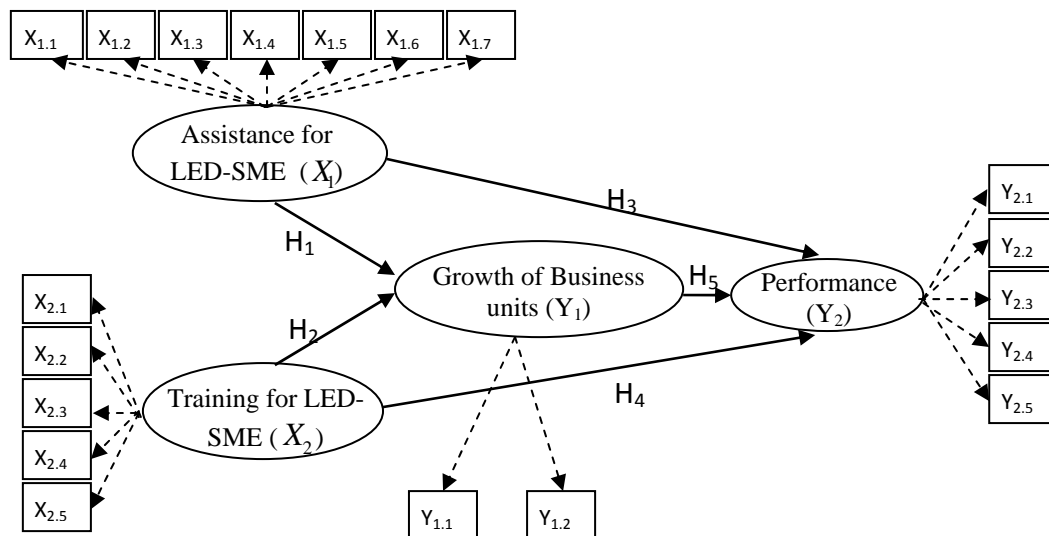


Figure 1. Research Model

Note:

- $X_{1,1}$: Quality of human resources and management
 $X_{1,2}$: Production quality and process
 $X_{1,3}$: Ease of obtaining information
 $X_{1,4}$: Development of business networks
 $X_{1,5}$: Opening of access to financing
 $X_{1,6}$: Socio-cultural and environmental relations
 $X_{1,7}$: Development of infrastructure strategy and business expansion
 $X_{2,1}$: Administration, management and human resources
 $X_{2,2}$: Production processes management and quality development
 $X_{2,3}$: Mastery of applied information technology (IT) and electronic media

- $X_{2,4}$: Preparation of financial statements and taxation
 $X_{2,5}$: Aspects of research and business development
 $Y_{1,1}$: Values of production and sales
 $Y_{1,2}$: Regional marketing
 $Y_{2,1}$: Effectiveness
 $Y_{2,2}$: Efficiency
 $Y_{2,3}$: Productivity
 $Y_{2,4}$: Profitability
 $Y_{2,5}$: Equity or fairness

3. Results and Discussion

Validity and reliability tests of the instrument were performed by confirmatory factor analysis (CFA). Research instruments are said to be valid when GFI > 0.90 and reliable when the value of construct reliability (ρ_{η}) > 0.70. [8]. Results of validity and reliability analysis of research instruments are shown in Table 1. Based on the table, all variables are valid since value of GFI exceeded 0.9 and can be categorized as reliable since the value of construct reliability exceeded 0.7.

Table 1. Results of Validity and Reliability Tests of Instruments

Variable	GFI	Construct Reliability
Assistance (x_1)	0.990	0.742
Training (x_2)	0.983	0.771
Growth of business unit (y_1)	1.000	0.745
Performance (y_2)	0.992	0.758

Source: Data processed

Results of SEM analysis and hypothesis testing.

Theoretical models of conceptual framework of the study are considered ideal when they are supported by empirical data. Results of fit tests in order to determine whether the overall hypothesized models are supported by empirical data are given in Table 2. The results show that the seven criteria shown in the table indicate that the models are good, and they are appropriate for use as a basis for hypothesis testing. Hypotheses were tested by *t*-test on each effect path partially. Results of testing hypothesis of inter-variable direct effects are given in Figure 2 and Table 3.

Table 2. Test Results of Goodness of Fit of Overall Models

Criteria	Cut-off value	Result of model	Description
Chi-square	Minimum	316.315	Good
<i>p</i> -value	≥ 0.05	0.120	Good
CMIN/DF	≤ 2.00	1.138	Good
GFI	≥ 0.90	0.918	Good
AGFI	≥ 0.90	0.894	Less good
TLI	≥ 0.95	0.971	Good
CFI	≥ 0.95	0.966	Good
RMSEA	≤ 0.08	0.027	Good

Source: Data processed

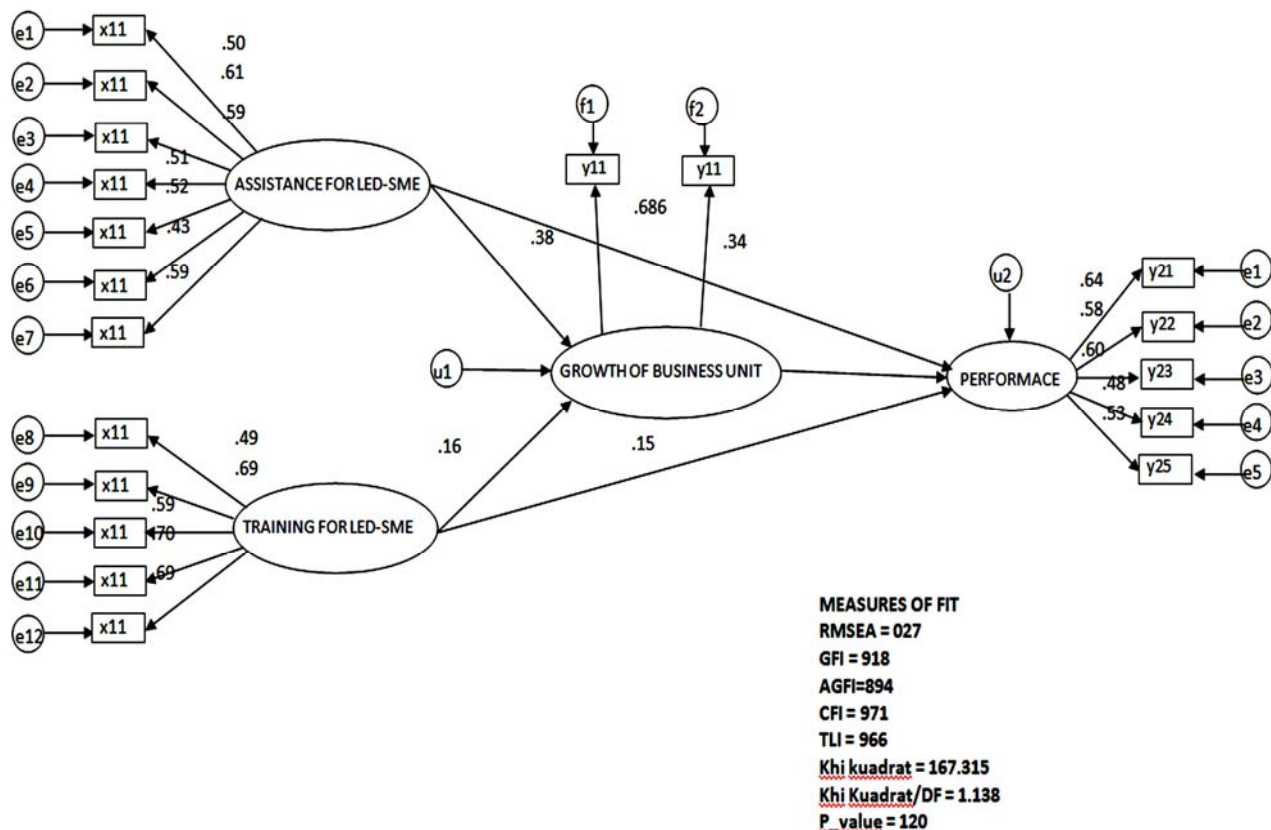


Figure 2. Path Diagram of Hypothesis Testing Results

Table 3. Results of Testing of Direct Effect Hypothesis

Independent variables	Dependent variables	Path coefficient	<i>p</i> -value	Description
Assistance (X_1)	Growth of business unit (Y_1)	0.476	---	Significant
Training (X_2)	Growth of business unit (Y_1)	0.164	0.103	Insignificant
Assistance (X_1)	Performance (Y_2)	0.341	0.005	Significant
Training (X_2)	Performance (Y_2)	0.146	0.104	Insignificant
Growth of business unit(Y_1)	Performance (Y_2)	0.456	0.002	Significant

The results show that Hypothesis 1, stating that assistance for LED-SME has significant effects on growth of business unit, was accepted. Path coefficient analysis of direct effects gave a value of 0.6 with *p*-value of < 0.001 . These results of the present study support two theories proposed by Lassem [9] and Liman [10]. LED-SMEs with government's assistance in management, engineering and financial support in production expedited their production goals. LED-SME government's assistance would be adaptable and responsive to their strategic production and capable in supporting operational management. Assistance was capable of producing different results in the growth of business units, compared to LED-SMEs without assistance. The above theoretical and research results provide an illustration of the role of government's development efforts through assistance for LED-SMEs in increasing growth of LED-SME business units.

Hypothesis 2, stating that training for LED-SMEs have significant effects on growth of business units, was rejected. Path coefficient analysis of direct effects gave a value of 0.164 with *p*-value of 0.103; hence, variable of training for LED-SME had no significant effect on growth of business units. These results contradict the two theories proposed by Suparmoko [11] and Mangkuprawira [12]. Training is not only seen as a temporary learning, but a process of continuous learning and productivity that would ultimately enhance growth of business units. LED-SME entrepreneurs who have attended training should have capability of managing business, becoming innovators by saving capital and labor, reducing production cost, increasing demand, employing a better organization form and opening new markets.

However, it was not the case with this study. Subsequent to attending training programs conducted by the government, growth of LED-SME business units did not automatically enhance the growth of business units. This was due to the partial or unsustainable training programs. The development programs should be long-term, so that they could be carried out continuously and sustainably. Another factor contributing to the negative

effect of training was that the development programs through LED-SME training that have always been associated with political issues, such as community economic issues or other political issues.

Hypothesis 3, stating that assistance for LED-SME has significant effects on performance, was accepted. Path coefficient analysis of direct effects gave a value of 0.341 with *p*-value of 0.005. Performance of LED-SMEs is expected to increase through assistance for LED-SME. The assistance programs were expected to overcome obstacles faced by LED-SME entrepreneurs, in terms of technical skills, managerial capability, unfavorable business climate, capital distress, difficulties in promotion and marketing, so that LED-SME performance could be improved [13]. Success of government's assistance programs have provided positive impacts on the development of business units. Growth and development of LED-SME meant an increase in demand for output, production volume, labor and existence of investment opportunities. An increase in operating profits encouraged interests and investment capabilities in terms of purchasing new machinery and equipment, so that the LED-SMEs could work more efficiently and effectively, which in turn positively affecting LED-SME business performance [14].

Hypothesis 4, stating that trainings for LED-SME have significant effects on performance, was rejected. Path coefficient analysis of direct effects gave a value of 0.146 with *p*-value of 0.104; hence, variable of LED-SME trainings had no significant effect on growth of business units. The results support a work by Moeljadi, which states that trainings have negative effects on business performance. This is due to the mistakes on the setting goals of the training, lack of appropriate curriculum, misidentifications of needs by participants, inadequate capacities and capabilities of training institutions, poorly equipped implementation of training patterns and inadequate teaching and learning media [15].

These results, however, contradict the works by Tan and Torrington, Chiu *et al.*, Mathis and Jackson, which state that trainings can improve entrepreneurs' knowledge,

skills and behavior. These are helpful in completing works faster with more efficient raw materials, longer life cycle of engine, lower level of work accidents, and low production costs that are capable of improving overall performance [16], [17], [18]. Results of this study are also in contrast to the Human Capital theory, stating that an individual could improve their incomes through education and training. Any addition to one unit of education and training would enhance employability, skills and incomes, which in turn capable of improving business performance [19]. Government's investment in training cost for LED-SME represents long-term investment of time and money, the results of which would again be seen in an increase in LED-SME operating income. It would be able to improve national economic growth. This explains the results that brief trainings are unable to improve LED-SME performance since training programs could not be felt directly in a short period of time. It takes time for LED-SME entrepreneurs to apply training materials.

In this research, there were several factors that cause trainings for LED-SME to have no significant effect on performance: (1) quality of training programs required improvement; (2) inappropriate competence of instructors; (3) trainings not on target; (4) inadequate instructional media; (5) trainees' lack of motivation; (6) longer time for SMEs to change or adjust. Instructor's competence and quality of training programs should be supported by several indicators, i.e., topics and training materials should be in accordance with participants needs; methods of training (learning and teaching system) used should be acceptable to participants, continuous curriculum and field applicability. Training as delivered by the government to LED-SME entrepreneurs have been unable to rapidly change their behaviors towards becoming better business owners, and the trainings were given with inadequate instructors' competence, quality programs, provision of equipment and instructional media. All of those factors have caused LED-SME performance, as measured by indicators of increased value of production and sales and marketing areas, to slow development.

Hypothesis 5, stating that growth of business units significantly affects performance, was accepted. Path coefficient analysis of direct effects gave a value of 0.456 with p -value of 0.002. Results of this study are supported by the works of Tambunan [14], Hema and Garry [20], and Doran [21], which state that an increase in operating profit as a result of LED-SME development provides positive impacts on the development of business units. Development policies are expected to increase growth of business units that would ultimately improve LED-SME performance. Growth of business units, as measured by an increase in production value and marketing area, is needed to improve business turnover of LED-SME, resulting in increased operating

income and ultimately improving LED-SME business performance.

Development of LED-SME. Not all LED-SMEs could grow and thrive; rather, many of them have been out of business. However, it had no considerable impacts on Indonesian economy due to its relatively small scale and number of labor. With respect to effects of government policies, there are two different viewpoints. The first one, states that government's development policies contribute to the growth of LED-SME business units and performance [22]; the second one states that not all of development policies contribute to the growth of LED-SME business units and performance [15]. In this research, government's development policies were examined according to the two viewpoints of assistance and trainings for LED-SME.

Results of the research on LED-SME indicate that government's development efforts through assistance for LED-SME were able to provide great benefits so as to increase growth of LED-SME business units and business performance. However, on the contrary, government's development efforts through trainings were not able to directly affect growth of LED-SME business units and performance. The government needs to implement principles of planning and development of training for LED-SME that are expected to enhance the growth of LED-SME business units and performance, namely: (1) the materials of training must be delivered systematically, gradually, and continuously; (2) the stages should be in line with objectives to be achieved; (3) trainers should be able to motivate and deploy responses associated with a series of training materials; (4) there should be reinforcement to increase and generate positive responses from participants; (5) concept of behavior formation should be used.

There are several agencies involved in the development of LED-SMEs at central, provincial and district or municipal levels. Involvement of many agencies potentially created overlaps in the development of LED-SMEs, necessitating synergy and the same political will. The government needs to implement principles of LED-SME development based on (1) utilization of natural resources of local mainstay, and have the local communities of LED-SMEs as main suppliers of local markets; (2) an increase in income and welfare of communities and regions; (3) expansion of employment opportunities (unemployment reduction); (4) preservation and development of traditional arts and local culture; and (5) directions to supply local markets. The local governments should be encouraged to develop programs in bottom-up manner on the basis of study of regional economic potentials and market prospects of each region. Local governments should be able to identify centers of LED-SME with potentials to grow and thrive based on local, regional and export markets.

4. Conclusions

Government's development efforts through assistance for LED-SMEs were able to provide great benefits so as to increase growth of business units and business performance. LED-SMEs that have received assistance would have a new production factor in management, engineering and financial that could facilitate business activities. The assistance programs were expected to overcome obstacles faced by LED-SME entrepreneurs in terms of low levels of technical skills, managerial capabilities, unfavorable business climate, capital distress, difficulties in promotion and marketing. Meanwhile, government's development efforts through training were not able to directly affect growth of LED-SME business units and performance. Trainings were not only seen as a momentary learning, but as a process of continuous learning and productivity that would ultimately enhance growth of business units. Programs of SME development through training for LED-SME should not be linked to political issues or jargons of the ruling parties, such as community economic issues or other political issues.

Based on the analysis and discussion, a number suggestions can be given: (1) for the purpose of the study, it is expected to extend further to the entire territory of Indonesia. Conducting research to the entire territory of Indonesia will encounter the social, economic and cultural patterns that are likely to form different behaviors. (2) Further research could also develop a model to extend the study variables in order to obtain results that are more complex.

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