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EMPOWERMENT THROUGH CLUSTER APPROACH FOR
IMPROVING COMPETITIVENESS AND PERFORMANCE OF
SMALL AND MEDIUM INDUSTRIES IN CENTRAL JAVA -
INDONESIA

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ABSTRACT

This study aims to (1) identify the strengths, weaknesses, opportunities and threats (SWOT) which faced by small and medium industries (SMI), (2) measure the SMI competitiveness and performance, and (3) describe the empowerment approach to improve the SMI competitiveness and performance. The samples are 394 small and medium entrepreneurs in Central Java - Indonesia which selected by random survey. The SMI competitiveness is measured by the index which is established on Porter's diamond model. This model includes four dimensions. They are the dimension of factor condition, the dimension of demand condition, the dimension of firm strategy structure and rivalry, and the dimension of the supporting industries and related industries. Based on the results of SWOT analysis, SMI has higher opportunity score than threat score and the strength score has lower than weakness score. From the measurement of competitiveness, it is found that SMI has the high competitiveness. The index score is 264.18. The measurement of SMI performance is used by ROI, ROE, and sales growth rates. The results showed the average ROI (20.96%), ROE (25.89%), and sales growth (7.51%). Based on correlation analysis, it is found the SMI competitiveness has positive correlation with the SMI performance significantly. The empowerment approach to improve the SMI competitiveness and performance uses the pattern cluster approach that involves three main actors. They are government, entrepreneurs, and owner of show room and broker.

Fields of Research: contemporary issue in management, entrepreneurship

1. INTRODUCTION

Industry's empowerment is a concept of industrial development that includes the values of economic, social and cultural rights. Empowerment means not only develop

value-added of economy, but also the value-added of social and cultural. So, this concept reflects a development, that is "people-centered, participatory, empowering, and sustainable" (Chambers, 1995). So, the industry's empowerment is a process which has a commitment for professionalism, honesty, unity and cooperation or partnership, as well as the interests of learning to get mutual benefits in the form of horizontal pattern. Empowerment is intended to strengthen industrial competitiveness and industrial performance in the globalization and regional autonomy.

Globalization and decentralization made business competition in the market increasingly. For these conditions, strengthening the industry's competitiveness, especially small and medium industries (SMI) is a strategic step to increase performance. Mayer (1986), SMI is a business industry that has assets up to 5 billion rupiahs except land and buildings, and sales up to 25 billion rupiahs per year. Efforts to strengthen the SMI's competitiveness should take the advantage of all this potential optimally. If the SMI's competitiveness is higher, the performance and SMI's contribution to the economy of the region are also higher.

Based on data of Department of Industry-Central Java region (2009) SMI population reached 644 311 or 99.88 percent of the company's entire industrial population in Central Java in 2008. SMI provide employment about 2,735,299 people or 82.2 percent of all workers in Central Java. Although the quantity of SMI is very large, but the quality SMI capability and the bargaining position still needs to be increased.

The ability and bargaining position of SMI's for managing various productive resources have related to the performance of SMI. Productive resources are included: human resources, financial resources, information, technology, markets, and production factors. The entrepreneurs have to compete with domestic competitors and foreign competitors. For increasing competitive market conditions and globalization, SMI should be competitive and have high performance.

Empowerment programs have done together with the employers, government, and other relevant parties to improve the competitiveness and performance of SMIs in the future. The SMI's empowerment program begins with identifying the various factors (internal and external) to identify its strengths, weakness, opportunities, and threats by the SWOT analysis. Measurement of the SMIs competitiveness and performance need to do as an effort for future development.

Monypenny (2006), the government has obligation to create a conducive business climate for increasing investment. These conditions such as the macro-economic stability, political stability, an efficient and fairly tax system, labor market policies and rules of intellectual property rights.

Central Java is one of the provinces in Indonesia that has a variety of SMI. The most entrepreneurs pursue as principal job and the main source of income for everyday life. SMI's Products in Central Java is not only known by the local market / regional, but also already known in many national markets and in international markets. Finally, the aims of this paper is to identify (1) the strengths, weaknesses, opportunities, and threats for SMEs in Central Java, (2) the status of the competitiveness and performance, and (3) empowerment efforts to improve competitiveness and performance of the SMI.

2. LITERATURE REVIEW

2.1. Concepts of Cluster and Centra

Clusters interpreted as the economic center in an area contains group of companies, which characterized by growth of entrepreneurs with advanced technology, growth of production specialization processes on companies and interrelated economic activities and support each other. Centra interpreted as the center business activity at the location or certain areas, where businesses actors use raw materials or similar materials, produce the same or similar products as well as have the developing prospect into clusters (Taufiq, 2004). In the growth clusters, they have support services activities such as research and development institutions.

Development of centras would be an important part of an effort towards empowering SMIs form to clusters. For prospective centras, they will need providers of business activity such as raw materials, marketing, research and development, quality control, and others as a form of a cluster. In the centers development approach an integrated with financial services through cooperation and management consultation services, the expected pattern of empowerment SMIs can be driving the growth of various activities business in an area towards cluster growth. Taufiq (2004), the ideal cluster model is synergy of some SMI business activities that are interrelated in terms of production processes which involve SMIs in the upstream to downstream sectors, as well as business services that are developed by SMIs as supporting business activities in the cluster.

Based on the Oxford English Dictionary, empowerment has two definitions: (1) is a process that provides or transfer part of power, strength or ability to someone to be more empowered, and (2) is a process to stimulate, encourage or motivate a person to have the ability to determine what is the choice of his life. Based on them, the concept of empowerment as antithetical for the development model and the model is less wealth for people.

Ife (1995), empowerment also means providing people with resources, opportunities, knowledge and skills to enhance their capacity to determine their own future, and to participate and influence their communities life. So, empowerment is the manifestation of the development SMI which have ability empowerment of human resources.

The empowerment of SMI contains economic values, social and cultural rights. Economic value embodied in the SMI's empowerment, such as increasing income, family welfare, and survival of their business. Social value in empowering aspects of SMI is shown by the increase in the dignity and social status of entrepreneurs, initially as a worker and then became a entrepreneurs who owned by themselves. The cultural values are shown by the courage, fighting spirit, hard work, creativity, productivity and the willingness to learn.

2.2. The patterns of industrial cluster approach

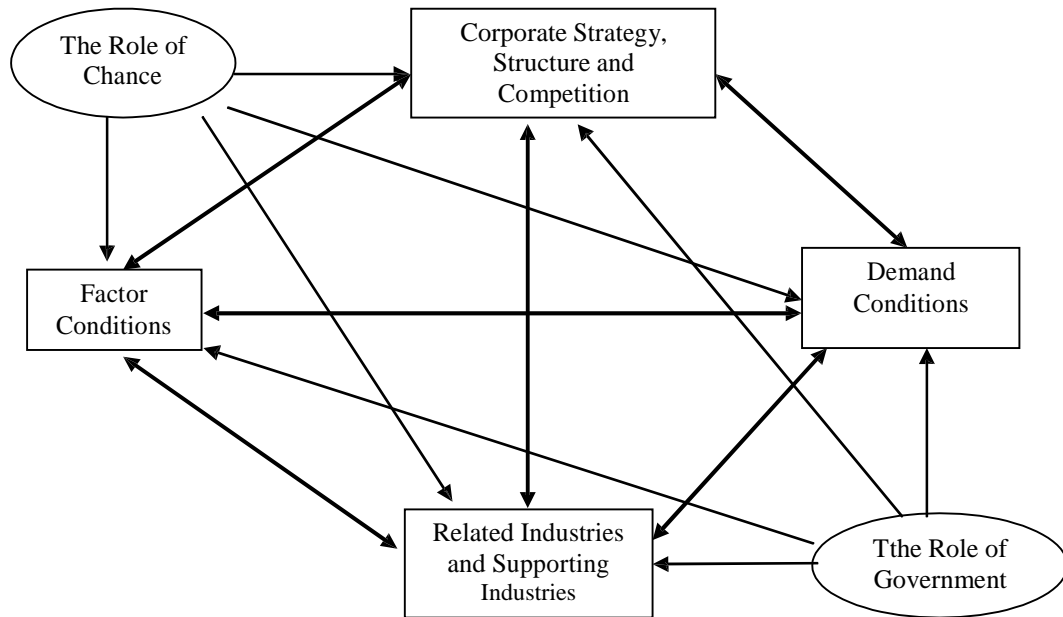
The SMI's empowerment should be adjusted to industrial development policies. Its mean, the SMI's empowerment should be associated with increasing access to sources

of financing, market access, capacity building of human resources / entrepreneurship, and regulatory reform. SMI business support system should be built through expansion of financing sources and market development through business partnerships.

There are four approach patterns in the SMI's empowerment (1) the pattern of Bank relationships with groups, (2) the pattern of clusters, (3) the pattern of business partnership, and (4) patterns of the Business Development Services / Provider or BDSP. The pattern of Bank relationships with groups is a pattern of financial services being introduced and provided by Indonesian Bank (BI) to the banking and real sectors to develop a financial relationship between banks and micro businesses. Cluster pattern is a pattern of investment for development of industrial cluster-based SMI group that optimize the relationship between employers in expanding employment opportunities, utilization of local resources, and marketing. The pattern of business partnerships is the business cooperation pattern between small industrial with medium and large industries, accompanied by coaching and development by medium and large industries with due regard to the principle of mutual need, mutually reinforcing and mutually beneficial. The BDSP patterns are a pattern of giving business development services performed by external agencies in charge of solving problems faced by SMI's and provide business development services. <http://usaha-umkm.blog.com/2008/02/29/pola-pendekatan-pemberdayaan-umkm/> → 27 May 2010

The focus of the study is the cluster approach pattern. The pattern of industrial cluster approach is related to the theory of competitiveness. This theory is comprehensive to assess a cluster, because it's seeing all of the important aspects that affect to an industry cluster. This theory developed by Porter and used to analyze the maritime cluster in Norway, oil and gas industry cluster in Houston, the cluster of medical equipment in Minnesota (Porter 2000), and the wine cluster in California and Australia (Porter 2003). Porter (2006) also uses cluster approach in order to provide suggestions for improving industrial competitiveness in Indonesia.

Porter (2003), competitiveness is formed by the interaction of several factors mentioned as a factor "diamond". Diamond formed by (1) factor conditions, (2) demand conditions, (3) related industries and supporting industries, and (4) corporate strategy, structure and competition. Porter also introduced two other factors that relate indirectly through: (1) the role of chance and (2) the role of government. These factors dynamically affect the company's competitive position in a State or region. To understand the competitiveness theory of Porter's diamond model can be shown by Figure 2.1.



Source : Cho DS, Moon HC. 2003

Figure 2.1
Diamond Porter Model

3. DATA AND METHODOLOGY

The object of this research is SMI manufacturing sector in Central Java, because this sector has been known as determinants of economic growth in a region. The populations of this study are all manufacturing companies included in the category of SMI manufacturing sector in Central Java. This sample research is part entrepreneur manufacturing sector in Central Java that use raw materials and local labor and included in the SMI category. The sample research obtained by purposive sampling technique.

The samples are 394 respondents. The sample size is adequate. Due to determine the sample size Roscoe (1975) gives guidance (a) in any research, the sample size of about 30 to 500; (2) if the factors used in many studies, the sample size of at least 10 times the number of factors, (3) if the sample will be divided into several parts, then the minimum sample size of 30 for each section as needed.

The data used primary and secondary data. Data collected by survey method using questionnaire distributed directly to 500 entrepreneur as respondents. From the total questionnaires distributed, 427 questionnaires were returned, so the rate of return of 85.4%. but only 394 questionnaires could be analyzed, because of incomplete data. The secondary data used to generate research issues and to support the research. Secondary data took from government agencies (BPS, Department of Industry in Central Java) and various publications, including the number of SMI, labor, and others.

The research instruments made by modifying the questionnaire Rooyen (2000). The modified elements include: (1) exclude the materials cost and labor cost elements on

the dimension of factor conditions, (2) add to the target market and market access elements on the dimensions of demand conditions, (3) add to the product innovation element the dimension of strategy structure and competition, (4) add to the role of some institutions or companies elements (eg, transportation, media, information, financial, material suppliers, and financial) on the dimensions of the supporting industry and related industries.

The measurement of variables uses the ratio scale, interval scale, and the Likert scale. The questionnaire begins with doing a pilot test to ensure that the questionnaire used as a research instrument. Researchers conducted a pilot test of the 20 small companies, as well as 15 medium-sized companies. Factor analysis uses to ensure that all elements of the four dimensions of competitiveness used as a research instrument. The result of the pilot test states that the value of loading factor for each element of competitiveness is greater than 0.50. It means a questionnaire designed as research instruments.

After the data were collected, then it analyze through several stages:

1. To identify strengths, weaknesses, opportunities and threats faced by SMI's by using SWOT analysis.
2. To determine the eigen value as the weight of each element and dimension of the competitiveness of all companies examined using factor analysis.
3. To determine the competitiveness index to find out how the status of SMI competitiveness. Determination of the competitiveness index using the following formula:

$$\bar{C}_1 = \frac{1}{n} \sum_i \sum_j \sum_k W_{ij} \cdot Z_{ijk} \quad (\text{Wiyadi, 2008})$$

\bar{C}_1 = Average SMI competitiveness index

W_{ij} = Weighted value of the competitiveness of the element i at dimension j.

i = 1, 2,

j = 1, 2, 4

k = 1, 2, n

n = 400

$$\sum_i \sum_j W_{ijk} = \sum_j W_{jk} = 1$$

$$Z_{ijk} = \frac{X_{ijk} - \min(X_{ijk})}{\text{Max}(X_{ijk}) - \text{Min}(X_{ijk})} \quad (\text{Saaty 1980; UNDP 2002})$$

$$Z_{ijk} = \frac{X_{ijk} - \min(X_{ijk})}{\text{Max}(X_{ijk}) - \text{Min}(X_{ijk})}$$

Z_{ijk} = Result of the normalization value of the element i competitiveness, the dimension j, k company

X_{ijk} = The competitiveness value of the element i, j dimension, k company normalized

4. To describe a model of empowerment as efforts to increase SMI competitiveness and performance by using descriptive analysis.

4. FINDINGS AND DISCUSSION

The SMI's existence in Indonesia has a strategic role, especially in employment. To become the backbone of the rise of the real sector in the region, the SMI should be

empowered well. The SMI empowerment efforts are intended to enhance competitiveness in the globalization and free markets era. However, the most SMIs are still facing various problems, for examples: technology, capital, management, marketing, access to banking and environmental problems. The complexity of these problems led to the performance of SMIs is very small compared with large industries (Anshori, 2005). So, the SMI development policies need to be reevaluated in order to accelerate regional economic development, enhance competitiveness and performance of the SMI.

The process of analysis in this study through four stages: (1) analysis of strengths, weaknesses, opportunities, and threats, or known as SWOT analysis, (2) measuring the SMI's competitiveness by using an index based on the framework of Porter's diamond model, (3) describing an effort to empower SMIs to increase competitiveness and performance.

4.1. SWOT Analysis

The empowering of SMIs starts from identify or diagnose a variety of internal factors and external factors. Internal factors consist of structure, culture and resources dimensional. External factors consist of the competitors, communities, and government dimensions (Wheelen and Hunger, 1986). This identification technique called SWOT analysis.

4.1.1. Internal Factor Analysis

The results of identification to strengths and weaknesses, weighting, rating, and scoring are state in the table Internal Factor Evaluation Matrix (MEFI). Various key factors scores describe the strengths and weaknesses of each factor and then it compared with their average.

Table 1. Internal Factor Evaluation Matrix (IFEM)

No	Key Internal Factors	Weight	Rating	Score
	Strengths (S)			
1	Adequate availability of local raw materials	0,08	2	0,16
2	Sufficient availability of production facilities and Infrastructure	0,09	3	0,27
3	Adequate human resources skills and potential for Development	0,07	3	0,21
4	Positive image of the institution	0,06	2	0,12
5	Available capital support from government	0,05	3	0,15
6	Jumlah tenaga kerja memadai Adequate number of workers	0,09	3	0,27
7	SMI directory created by Disperindag for promotion and marketing available	0,06	3	0,18
	Amount	0,50		1,36
	Weaknesses (W)			
1	Technological production capabilities are still relatively low	0,10	2	0,20
2	The most raw materials are imported from other regions or impor	0,08	3	0,24

3	Lack of access to information, institutional capital, technology, price and market	0,09	3	0,27
4	Limitations of distribution networks and in some areas is still less standards	0,07	2	0,14
5	Financial accounting system is bad	0,07	3	0,21
6	The most of SMIs are still implementing management systems and traditional family	0,09	3	0,27
	Amount	0,50		1,33
	Total	1,00		2,69

Table 1 shows the strength score (1.36) is higher compared with the weakness score (1.33) and total score is 2.69 or above average scores (lowest score is 1.0 and the highest score is 4.0). It means that the SMI in Central Java is internally strong.

4.1.2. External Factor Analysis

The results of various key factors identification that describe opportunities and threats, weight, rating, and scores are stated in the External Factors Evaluation Matrix table (MEFE). The various key factors scores for external opportunities and threats, each score is counted and then compared with the average.

Table 2. External Factor Evaluation Matrix (EFEM)

No	Key External Factors	Weight	Rating	Score
	Opportunities (O)			
1	The geographical location area of Central Java Province is strategic location	0,05	4	0,20
2	Management of natural resources is still wide	0,05	2	0,10
3	Government and local government attention to the development SMI is considerable	0,07	3	0,21
4	Opportunities to cooperate with other parties is wide.	0,06	3	0,18
5	The total population in Central Java Province is large	0,04	3	0,12
6	There is support for increasing competitiveness through strengthening the production technology capacity	0,09	2	0,18
7	The management information development system is relatively affordable	0,06	3	0,18
8	The potential market of local and export is still Wide	0,08	4	0,32
	Amount	0,50		1,49
	Threats (T)			
1	The condition national economy is relatively stable and it impact on regional economic development	0,08	3	0,24
2	The SMI data is uncomplete	0,08	2	0,16
3	The impact of globalization results in the foreign products	0,09	3	0,27
4	There are no networking supplier - SMI - Consumers	0,08	2	0,16
5	Some of the raw materials is still depend on	0,08	2	0,16

	Import			
6	Some areas are still vulnerable to disasters such as floods and landslides	0,09	3	0,27
	Amount	0,50		1,26
	Total	1,00		2,75

Table 2 shows, that the score (1.49) is higher than the threat score (1.26) and total score is 2.75 or more than average scores (lowest score is 1.0 and the highest is 4.0). It means the SMIs in Central Java respond positive for the opportunities and threats. In other thing, IKM strategies effectively exploit opportunities and minimize potential negative effects from external threats.

4.2. Measurement of SMI"s Competitiveness and Performance

The determination of the SMIs competitiveness use an index based on the framework of Porter's diamond model. The values of the index describe the status of the SMI competitiveness. The result of competitiveness index can be shown in the following table.

Table 3: Results of the SMI competitiveness index in Central Java

No.	Dimensions and Elements of Industrial Competitiveness	Competitiveness Index
I.	Dimensions of Condition Factor	73,66
1.	Cost per unit of product	5,60
2.	Source of Raw Materials	14,30
3.	Source of Capital	4,57
4.	Source of Labor	14,53
5.	Location	16,58
6.	Knowledge	6,63
7.	Technology	11,43
II.	Dimensions of Demand Conditions	69,17
1.	Target Market	31,07
2.	Market Access	17,29
3.	Sales Growth	20,80
III.	Dimensions of Corporate Strategy and Structure of Competition	61,25
1.	Product Adaptation	8,37
2.	Flexibility	8,43
3.	Competitive strategy	13,70
4.	Managerial Ability	5,29
5.	Threat of new entrants	12,77
6.	Product Innovations	12,69
IV.	Dimensions of Supporting and Related Industries	59,61
1.	Financial Institutions	14,20
2.	Transportation Service Company	10,98
3.	Providers of Raw Materials	13,12
4.	Marketing Intermediaries	9,33
5.	Information companies	11,98
	Total Dimension	264,18

Source: Primary Data 2009. processed

Based on the table 3, the SMIs competitiveness in Central Java has a high index value (264.18). While in the dimension ratings, the highest competitiveness index value is

dimension of condition factors, that is equal to 73.66. It happens because most of the SMI uses raw materials and local labor, technology or appropriate type of equipment, and located outside the city. Nevertheless the competitiveness index value is low. The costs per unit of product (5.60); sources of capital (4.57) and knowledge (6.63). This problem occurs because the scale of production is low, most employers use a mix of capital itself, the amount of capital is very limited, and formal education level of entrepreneurs is low. Therefore, to improve cost efficiency per unit of product, the company needs to (1) purchase materials jointly with other companies through a cooperative, (2) encourage employers to get the higher education, and (3) improve scale production based on market demand opportunities.

Among all of the dimensions, the dimensions of supported and related industries have the lowest competitiveness index is 59.61. This is due to elements of marketing intermediaries have a low competitiveness index (9.33). The low of marketing intermediary elements competitiveness caused by the most employers distribute their products directly to the consumers. In case, the directly distribution of their products made their distribution cost are inefficient and the ability to reach consumers is very limited. Thus, the SMI should cooperate with the intermediary to improve competitiveness in the market.

The competitiveness index value of adaptation, flexibility, and managerial ability elements on the dimensions of corporate strategy and structure of competition is low. This is due to the level of experience, type of equipment used, and the level of formal education possessed entrepreneurs is relatively low. In order to get the high SMIs competitiveness and performance, the employer must be responsive to any changes, use a multifunctional type of equipment, and improve the quality of self through a program of formal education or training.

Furthermore, the measurement of the SMIs performance based on return on investment (ROI), return on equity (ROE), and the sales growth rate. The performance measurement results that the average ROI is 20.96%, ROE is 25.90%, and sales growth is 7.51%. Thus, It means that the SMIs performance in Central Java is good and consistent with the high level of competitiveness. To determine the relationship between SMI performance variables, this research uses Pearson correlation as below:

Table 4. Pearson Correlations

		TUMPAS	ROE1	ROI
TUMPAS	Pearson Correlation	1	,484**	,464**
	Sig. (2-tailed)	.	,000	,000
	N	394	394	394
ROE1	Pearson Correlation	,484**	1	,727**
	Sig. (2-tailed)	,000	.	,000
	N	394	394	394
ROI	Pearson Correlation	,464**	,727**	1
	Sig. (2-tailed)	,000	,000	.
	N	394	394	394

** . Correlation is significant at the 0.01 level (2-tailed).

From table 4 can be analyzed the relationship or correlation between the components of SMI performance. The results indicate the existence of correlation between variables of SMI performance. It can be shown by the number of sig. (2-tailed) less than 0.000. Component Matrix uses to know, how much the relationship between variables of SMIs performance in Central Java. The result using Component Matrix Table as follows:

Table 5: Component Matrix

	Component
TUMPAS	,746
ROI	,882
ROE	,890

Extraction Method: Principal Component Analysis.

a 1 components extracted.

Source: data processed SPSS.16.00

From the table 5, the component of return on equity (ROE) is the most effect factor on the SMI performance. All of variables have effected on the SMI performance. Based on the findings, the research uses the workers to improve SMI's performance. Return on Equity (ROE) shows the most dominant variable in shaping the SMI performance. Another variables need evaluation and improvement of services, so the service quality at retail hypermarkets was received well by consumers.

4.3. The SMI Empowerment To Increase Competitiveness and Performance.

Generally, the characteristic of SMIs are small-scale, labor-intensive, based on local resources, and has various limitations. To improve SMIs competitiveness and performance have to choose a development and advantage strategy. One of integrated approach is build a related businesses network. This approach is known as the centra, where several SMI conduct similar business activities. The centra is the center of business activity in certain areas, where business people use the same raw materials or facilities, to produce the same or similar product and have prospects to be developed into clusters.

The development of SMI centra becomes an important part for empowering SMI clusters. In accordance with the development and the needs of business activity in the centra, a new business with various ranges of businesses that support the activity centra will be developed. For prospective centra, it needs business activities in the raw material suppliers, marketing, research and development, quality control, capital, and others as a form of a cluster.

The efforts to increase the SMIs competitiveness and performance in the centra is necessary to develop various business scope, but still linked into a cluster. For example: at the centra can be developed batik industry that related with other businesses such as textile, clothing industry, trading center of batik, batik cloth industry of souvenirs and others. So, the cluster can be interpreted as an economic

center as known by the growth and development of businesses uses advanced technology, specialization of production processes, interrelated and mutually supportive economic activities.

The most clusters in Indonesia is SMI centra which concentrated at the same location and has grown quite long. The SMI centra reflect a simple cluster and growth naturally without government intervention. Generally, clusters are developing in rural and traditional activities and carried out by generations of their parents.

The approach taken by industrial cluster or centra, associated with the trend of increasing competition from individual pattern to collective competition pattern toward national and global competitiveness. In the cluster approach, a group of interrelated SMI and operate in the same areas have the ability to growth.

Industrial based on cluster has been able to penetrate export markets, get the added value, absorb large labor, and responsive for the utilization of technological innovations. The ideal cluster models have synergies in various business activities in terms of production processes, and business services developed by the SMI as supporting business activities in the cluster. Various constraints faced in empowering SMI which includes human resources, capital, technology and marketing.

This research was conducted in the region of Central Java province. For SMI empowering, local government and financial institutions have more empowered. The SMI empowering is done through increased productivity and efficiency the product processing by replacing production equipment with the modern production equipment. Government aid is an effort to improve the quality and quantity of leading products and potential products in Central Java.

Based on the results of the analysis, the main actors who have a role in encouraging SMIs are:

1. Entrepreneurs.

They try to empower themselves to maintain their business development. They started the business with their experience, skills and savings from their income as a worker at another company. The initial capital comes entirely from his own employers, while for the capital, it is from profits of business development and partnerships with other parties. For example: A provider of raw materials, showroom owners, traders, brokers, and other financial institutions.

2. Government and relevant agencies.

The government needs to provide counseling, training and business guidance to entrepreneurs intensively. In addition, the government also provides capital assistance, equipment, raw material procurement, and market access for SMIs to enhance the ability and independent. The Real forms of empowerment done by the Government of Central Java province, are: (a) to guarantee legal for empowerment of SMIs in order to the strong and independent SMI; (b) evaluate the effectiveness of the distribution of the People's Business Credit (KUR) or capital assistance to entrepreneurs for collaboration between SMI with BRI Bank and Jateng Bank; (c)

promote entrepreneurship and develop the incentive systems related to aspects of licensing, access to capital, taxation, and market information, (d) evaluate the effectiveness of technology assistance, and production for raw materials supply, counseling and training as well as involvement of entrepreneurs in comparative studies, (e) evaluate the effectiveness of assistance for promotional marketing and distribution through trade fairs at the local, regional, national, or international.

3. Suppliers, showroom owners, and brokers.

The most of SMI entrepreneurs need to grant credit facilities and guarantees payment by the availability of raw material suppliers. In addition, showroom owners and brokers should be role in marketing and inform the variety products to consumers. Entrepreneur relationship with suppliers, showroom owners, and broker produce a trade pattern partnership model. While the relationship with SMI produce a production patterns partnership model.

4. Non-Governmental Organizations and University

The employers must cooperate with Non-governmental organizations (NGOs) to obtain business advocacy and mentoring. They have to collaborate with universities to obtain coaching, business consulting, business mentoring, and research.

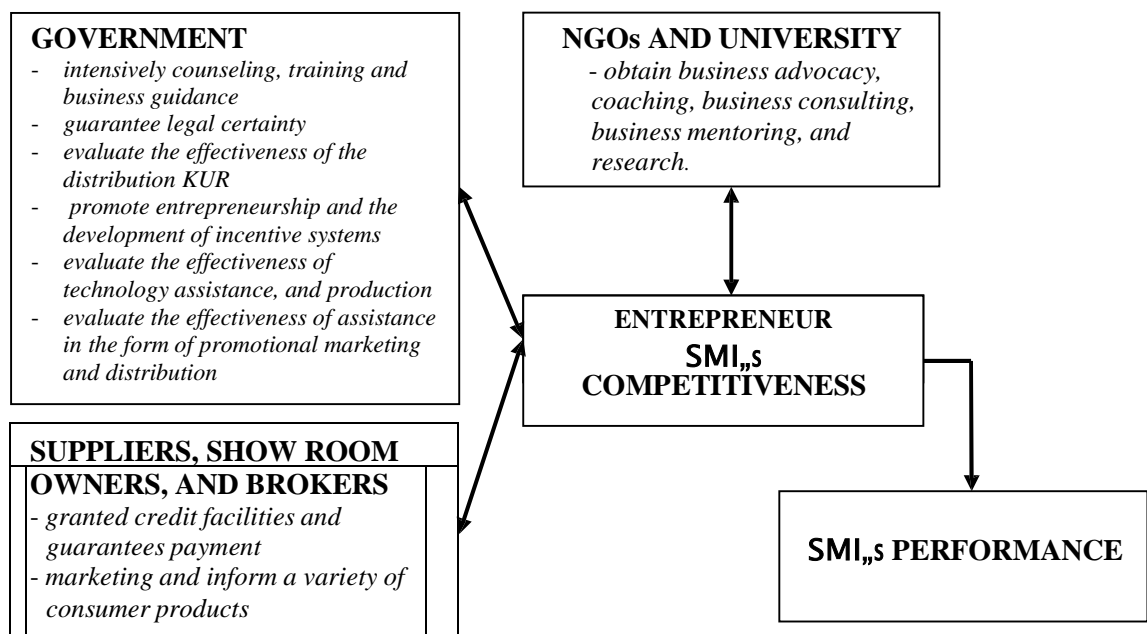


Figure 2.2
Empowerment of SMIs by Cluster Approach

5. CONCLUSIONS AND IMPLICATIONS

Based on the analysis, IKM in Central Java has a high competitiveness and performance. There is significant relationship between variables of SMI performance in Central Java. These variables are sales growth, return on investment (ROI), and a return on equity (ROE) which forming the main component of the SMI performance.

The most dominant variables which forming the performance of SMI is return on equity (ROE).

Industrial cluster is an institutional approach which has the advantage to synergize the strengths of the various sectors. Cluster system is an alternative option as the institutional model to improve competitiveness and performance of SMIs. Reliability of industrial cluster system has been tested in several countries to develop their competitiveness and performance of SMIs.

The existence of the centra is developed into clusters imbrico. The centra have a long industry chain, the strong links, and the wide market network can develop into clusters. The various steps for SMI empowerment are: (1) SMI development; (2) provision of finance schemes and improving the quality of microfinance services, (3) providing incentives and SMI guidance; and (4) improving the quality of SMI and build collective efficiency for SMI entrepreneurs.

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