Industrial Strategy Development of Core Competence in Pekalongan City

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Abstract

The development of core competencies is expected to increase the competitiveness of national industries, because it the performance becomes measurable and easy to evaluate its development program. Global economic competition has been increasingly right now. The low competitiveness of the industry at international market is still a challenge to the national industry. Industrial development can be done by utilizing the natural resources, and focus on the region competence. This research was conducted to help know the core competence of industry by take case study at Pekalongan City. The first phase is determining regional competence on some existing industrial alternatives. The alternative is obtained based on secondary data collection and using method of Analytic Hierarchy Process (AHP). The results will be in the form of core competencies that can be developed, as a competitiveness in Pekalongan City. Phase two, plans the development strategy using Interpretive Structural Modeling (ISM) method. In designing the core competency, it will done by discussing with experts to get additional analysis about the strategy to be done.

Keywords
Management Strategy, Core Competence, Analytic Hierarchy Process, Interpretive Structural Modelling

1. Introduction

Global economic competition is now increasingly, impact of the global economy that now leads to free trade. Both regional and international levels such as the adoption of AFTA (Asean Free Trade Agreement), and ACFTA (Asean - China Free Trade Agreement) (Nurcahyo, Erlinda , Maemunsyah, Saparudin 2011). The low competitiveness of the industry for international market is still a challenge to the national industry. As stated by the Ministry of Industry of Indonesia, Indonesia's competitiveness declined from 37th rank last year to rank 41 this year from 138 countries (Kemenperind, 2017). There are several factors causing the low competitiveness of national industry, seeing many problems in Indonesia such as inefficiency of government bureaucracy, weak infrastructure, corruption, lack of legal certainty, especially employment and tax incentive regulations, inflation, lack of access to finance for farmers, and the instability of government policy and its implementation (Institutional Science and Technology, DIKTI, 2017).

Industrial development can be done by utilizing locally owned resources, and focusing more on the competencies of a region (Mappigau and Hastan 2012). The approach, according to the Ministry of Industry, is called bottom-up approach, namely through the selection and determination of core competencies that are regional advantages that have competitiveness (Kemenperind, 2007). The development of core competencies of regional industries is expected to increase the competitiveness of national industries because the industrial development is more focused and clear, so the performance becomes scalable and easy to evaluate development program (Kemenperind, 2007).

Knowing the core competencies of a region needs to be done so that the Regional Government can improve the competitiveness of the region by developing the core competencies. (Zich 2007; Jiangwei, 2009, Agha, Alrubaiee, Jamhour, 2011). In practice, there are still programs that are still failing to implement, because the understanding of the core competency concept applied, does not consider the ability of its resources (Mappigau and Hastan 2012). The industrial sector is one of the elements that have an important role as a supplier of local revenue sources in the form of products and services, which can provide progress from an area both in terms of income and culture (Sen and Haq, 2010; Nurcahyo, 2012). There are several sectors of a region that can be used as capital in regional development, such as industry sector, government, raw materials, and resources (Kemenperind, 2007).
Pekalongan City is one of the central economic growth centers in Central Java bordering the Java Sea in the north, Batang City in the east, and Pekalongan City in the south and west. Pekalongan consists of 4 districts, namely West Pekalongan, North Pekalongan, East Pekalongan, and South Pekalongan (BPPD Prov.Jateng, 2013). The city is located on the Pantura line connecting Jakarta-Semarang-Surabaya. Pekalongan is 101 km west of Semarang, or 384 km east of Jakarta. Pekalongan known as batik city nickname, because Pekalongan batik has a distinctive and varied style. Pekalongan City entered the creative city network UNESCO in the category of crafts & folk art in December 2014 (BPPD Prov.Jateng, 2013).

One of the existing industries in Pekalongan is batik industry. Batik Pekalongan is using coastal batik mode that has the most rich in color. As is typical of coastal batik modethe pattern usually naturalist. This is because Pekalongan city is located in the northern coastal area of Java island, so there are many pictures of animals and sea plants on their motives. (Wulandari, 2011). Batik Pekalongan became one of the industrial sectors that built the economy of Pekalongan city, by becoming one of the suppliers of local revenue sources (Sudantoko, 2010).
This research is conducted to help know the core competence of the industry by taking case study on batik industry in Pekalongan City, and make strategy of development planning of batik industry of Pekalongan City so as to give added value in regional economy.

1.1 Literature Review

Hafeez and Essmail (2007) evaluated the core personal competencies of the organization using the Analythic Hierarchy Process (AHP) approach, and found that although the construction company, the composition of the dominant organizational capability is governed by the contribution of intangible assets. The results of AHP analysis related to personal competence are related to innovative solutions, core organizational competencies, customer focus, and team orientation.

According to Sevkli et.al. (2007) Analythic Hierarchy Process (AHP) was adopted to support decision-making techniques in management research, examples of its application are research conducted by Koh and Tan 2006 AHP applications used in evaluating risk factors in making implementation in enterprise resource planning at the focus of supply chain uncertainty (Sevkli et al., 2007).

ISM is an assessment process undertaken to develop a complex map of relationships between the various elements. The basic idea is to use experienced experts and practical knowledge to elaborate complex systems into multiple sub-systems and build a structural model (Talib, Rahman and Qureshi, 2011). Sahney, Banwet, D.K, and Karune (2010) developed the use of ISM by creating a framework on the administration part of one of the education systems in India.

In research conducted by Mappigau and Hastan (2012), want to know the core competence of strategy on silk weaving product in Wajo Regency area. The result of core competence activities and sustainable source of competitive advantage of silk weaving is the operation activity. In this study, the core competencies of Wajo Regency and its strategy stages have not been determined by using SWOT analysis approach. This research will determine the determination of core competence of a region, in this case is Pekalongan City, by making the development strategy design from core competence area of Pekalongan City.

2. Theoritical Background

2.1 Core Competence

According to Porter strategy is an essential tool for achieving competitive advantage (Porter, 1985). As for Hamel and Prahalad, strategy is an incremental and continuous action and is based on the viewpoint of what is expected for the future of the customer (Hamel, Prahalad, 1995). Core competence is a various skills and technologies that can provide a business success in achieving its goals (Prahalad and Hamel, 1990). Prahalad and

Hamel (1990) argue that there are at least three things that can be applied to identify core competencies within an organization, which can provide potential access to markets, contribute to customers, and be difficult to imitate by business competitors. According to Williams (1992), core competence is a skill owned by a company to enable the company to achieve its goals through the establishment, renewal, renewal and use of resources that lead to sustainable competitive advantage.

By implementing the core competencies of the region, it can provide guidance for the regions more effectively, efficiently, and focus on the potential of regions in improving the competitiveness of products produced which will improve the economy of the region (Agha, Alrubaiee, Jamhour, 2011; Jiangwei, 2009; Zich 2007).

Based on the concept of core competence, nationally Indonesia adapted this concept with SAKA SAKTI (One District / City One Core Competence), or One Village One Product (OVOP). This concept is indispensable for the resources and capabilities possessed by the region directed to create core competencies (Nurcahyo, Erlinda, Maemunsyah, Saparudin, 2011). SAKA SAKTI (One District / City One Core Competence) is a concept developed to establish the competitiveness of a region in order to compete globally. This model focuses on identifying the competencies of an area that considers the region's resources, which include natural resources, human, innovation and creativity. There are two concepts in building core competencies with the SAKA SAKTI approach (One District / City One Core Competence), or One Village One Product (OVOP). The first is to develop local products that have a superior area in typical products, product uniqueness, and product benefits for users. The second is to build the core competence of the region, see the core competencies that have the opportunity to penetrate into the international market so as to make the competitiveness for the region. There are three principles that must be owned by a region in developing a regional superior product if applying the concept of SAKA SAKTI (One District / City One Core Competence), or One Village One Product (OVOP (Triharini, Larasati, R. Susanto, 2014). think locally globally (Local but Global), self-reliance and creativity, and human Resource Development (Triharini, Larasati, R. Susanto, 2014).

2.2 Analytical Hierarchy Process (AHP)

Analytical Hierarchy Process (AHP) is a method to help make decisions developed by Thomas L. Saaty (1980). It is a technique to help decision makers facing multiple decision criteria decomposing complex decision operations into a hierarchical multi-level structure, allowing quantitative and qualitative criteria to be considered and balanced (Hafeez, Essmail, 2007). AHP serves to measure the relative priority of factors and alternatives on a certain scale based on human judgment (Lee et al., 1995; Hafeez et al., 2000).

According to Mishra and Singh (2014), there are three main steps Analytical Hierarchy Process, namely:
The first stage creates a hierarchical form for the problem to a lower decision level. The second stage, at each level of the hierarchical structure is made in numerical form, for comparisons made for decision making. The final stage, calculation and priority setting must be done relative to the weight of hierarchical element elements, including criteria, sub criteria and alternatives.

Assessment results can be evaluated using a Consistency Ratio (CR). CR is one of the important aspects of AHP technique. Before determine the value of the CR, it is necessary to calculate the value of the Consistency Index (CI) of the n x n matrix is created.

$$CI = \frac{(\lambda_{max} - n)}{(n-1)}$$

Where λ_{max} is the maximum Eigenvalues of the matrix values. Consistency Ratio (CR) can be calculated using the formula:

$$CR = \frac{CI}{RI}$$

RI is the random consistency index obtained from a large number of simulations that vary depending on the order of the matrix. Table 2 shows the value of random consistency index (RI) for a sequence of values of the matrix (n) 1 to 10.

Table 1. Random Consistency Index RI Value

n	1	2	3	4	5	6	7	8	9
RI	0	0	0.58	0.90	1.12	1.24	1.32	1.41	1.45

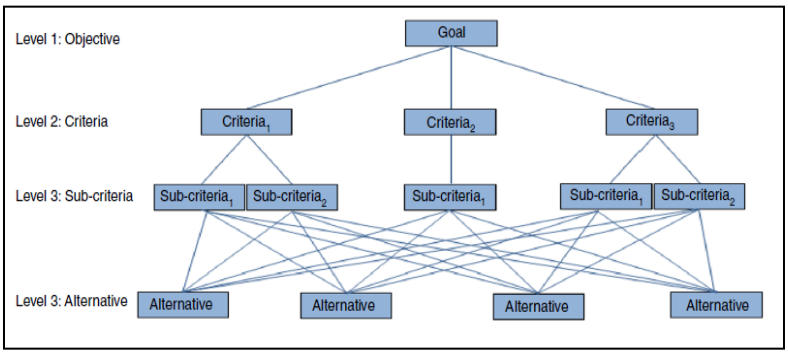

Figure 1. Structure of The AHP Method: Source Hierarchy (Mishra V, Singh, 2014)

Table 2. Importance Rating Scale in AHP

Degree of preference	Definition	Explanation
1	Equally preferred	Two activities contribute equally to the objective
3	Moderately	Experience and judgment slightly favor one activity over another
5	Strongly	Experience and judgment strongly or essentially favor one activity over another
7	Very strongly	An activity is strongly favoured over another and its dominance demonstrated in practice
9	Extremely	The evidence favoring one activity over another is of the highest possible order of affirmation
2,4,6,8	Intermediate values	When compromise is needed

AHP combined both subjective and objective assessment to be integrative framework based on a ratio scale of comparison simple and helps analysts to set the critical aspects of the problem in a hierarchical structure (Shyjith, Ilangkumaran, and Kumanan, 2008). The advantage in using the method of Analytical Hierarchy Process (AHP) are: 1) Can measure the consistency in the assessment of decision maker; 2) Pair wise comparisons allow to lower the load criteria and scores of alternative from the matrix comparison; and 3) AHP can help decision-makers to set criteria and sub criteria on the issue in a hierarchical structure similar to the shape of the family tree.

2.3 Interpretive Sructural Modeling (ISM)

Interpretive Sructural Modeling (ISM) is proposed as a solution methodology for analyzing the interaction between the criteria involved in implementation. ISM is an interactive learning process in which a set of distinct and directly related elements is structured into a comprehensive systematic model (Sasikumar and Haq 2010).
Interpretive Structural Modeling (ISM) was first proposed by J. Warfield in 1973, used in analyzing complex socio-economic systems (Nurcahyo, Erlinda, Maemunsyah, Saparudin, 2011). Interpretive Structural Modeling (ISM) allows individuals or groups to develop complex map relationships between the various elements involved in complex situations.

ISM approach make consideration to the use of the opinion of the experts, using some of the techniques of management such as brain storming or nominal group techniques, to develop a contextual relationships between variables (Kannan Monday et al., 2010) measures the use of methods of ISM are as follows Charan et al., 2008):
1) Set the group implementation of the ISM. Choose a group of people with backgrounds related to research topics, skills and relevant knowledge; 2) Identify and select relevant variables. Over at this stage, to identify the variables that affect the system of learning, on the job performance measures; 3) Self Interaction matrix structure (SSIM) developed. Through the use of a group of experts, the relationship among variables hypothesized. This matrix shows the relationship between the variables of the system under consideration; 4) Determine reachability matrix. Based on reachability matrix of SSIM, developed. Transitive relations contextual is the basic assumptions made in the ISM. If the variable is A variable related to B and B variables related to the variables C, then A variable always relate to the variable; 5) Reachability matrix is decomposed into different levels. Reachability matrix is decomposed to make a structural model. That is, the graph is directed is pulled and transitive link removed.

3. Research Methodology

The first stage of the methodology based on the problems and constraints that exist is to collect the necessary data in research. Data are primary data (questionnaires and interviews), as well as secondary data support. Then after verifying the data, the next step is to process data and data analysis.
To determine the core competence of the three industries in Pekalongan city, conducted by using Analytical Hierarchy Process (AHP) method. Determination of Sector and Sub sectors of Pekalongan City is determined based on secondary data from Central Bureau of Statistics (BPS) of Pekalongan City. Based on the data obtained, it can be determined that the superior sector owned by Pekalongan City is the Processing Industry. The next determination is the superior sub-sector of Pekalongan City. The determination of sub sector is also done based on BPS data, obtained by classification of industrial sub sector owned in Pekalongan City is metal & machinery industry, miscellaneous industry, and agriculture industry.

The next stage of the three sub-sectors of the industry will then be determined the industry that became the regional flagship of Pekalongan City. The determination of this superior industrial sub sector is using AHP (Analythic Hierarchy Process) method. Where the industry sub-sector is an alternative that must be selected based on several criteria. The formation of criteria obtained from the discussion with experts, which also beradasarkan of previous research. Based on Nurcahyo's research, 2012 criteria for choosing core competencies are contributed to the development, social impact and equity of income, availability of human resources, infrastructure, value-added prospects, competitiveness, marketing, locality values, geographic conditions, policy and institutional support . In this study, the processing of five expert opinions as respondents. These experts are some representatives of business owners in Pekalongan City in accordance with the existing Industrial classification. There are 3 levels in the determination of core competencies. The first level is level 0, which is the goal to be achieved, namely choosing core competencies in Pekalongan CIty. The second level is level 1, the selection criteria, namely criteria for choosing core competencies are contributed to the development, social impact and equity of income, availability of human resources, infrastructure, value-added prospects, competitiveness, marketing, locality values, geographic conditions, policy and institutional support. The third level is level 3, the alternative industry in Pekalongan City.

After doing data processing with AHP and got one type of industry, then the next step is to develop the industry by using ISM. In ISM processing, it is necessary to know the related variables. This variable can be known by doing the result of Forum Group Discussion (FGD) discussion with batik entrepreneur Pekalongan City, and also Pekalongan City industrial department, which later can be used as input for influential variable. From the result of the discussion with the batik businessmen of Pekalongan, the result is got 6 variables that is improving the marketing, support from the government, the development of technology, the development of information media for batik, development of labor, and the development of batik models and products. Results of data processing with ISM obtained Framework of batik business development model in Pekalongan City.

The first step in ISM processing is to create Structural Self Interaction Matrix (SSIM), where the variables are made their constextual relationship by making one variable I and variable j. The next step is to make the reachibility matrix (RM) by changing V, A, X and O with numbers 1 and 0. And the last step is to make Canonical Matrix to determine the level through iteration. After no more intersection, then made a model produced by ISM which is a model to solve the problem, in this case the development of batik industry in Pekalongan City. From the model then will be made an implementation strategy according to the level (level) formed.

4. Result and Discussion

Pekalongan City is one of the central economic growth centers in Central Java bordering the Java Sea in the north, Batang City in the east, and Pekalongan City in the south and west. Pekalongan consists of 4 districts, namely West Pekalongan, North Pekalongan, East Pekalongan, and South Pekalongan (BPPD Prov.Jateng, 2013). The economy of Pekalongan City in 2016 has increased compared to the previous year. This is indicated by the growth rate of Gross Regional Domestic Product at constant price of 5.36% from the previous year Rp 6,043 billion in 2015, to Rp 6,367 billion in 2016 (BPS Kota Pekalongan, 2017). The highest growth was in the services sector of 10.28%, but the highest distribution to the economy in Pekalongan City was in the sector of trade of 21.72% from Rp 1,342 billion in 2015 to Rp 1,407 billion in 2016, while the Manufacturing Processing sector amounting to 21.43% from Rp 1,302 billion in 2015 to Rp 1,356 billion in 2016.

Industry in the city of Pekalongan consists of agriculture, industry & energy, and tourism & hotels. Based on the results of the GRP Pekalongan obtained, which has the highest contribution i.e. is the processing industry (21.43%) and trade (21.72%). On the basis of trade in the city of Pekalongan has seen growth every year, the addition of a

number of places of business in the town of Pekalongan is only increased by about 1% to 6%. The addition is not too significant. Total number of businesses in the town of Pekalongan, can be seen in Table 3.

Table 3. Total Business Place in Pekalongan City

Total Business Place	
2015	6,801
2014	6,402
2013	6,311
2012	6,297

The election to find out the core competencies that are owned by the Pekalongan city, selected from the processing industry. In processing industry which is in the city of Pekalongan is divided into three classifications of industries, namely metal machine and chemistry industry, varied industry, and agricultural industry. Number of industrial enterprises in each industry classification each year has increased, an increasing number of companies and the amount of employee. Total corporate and employee in the Pekalongan City can be seen in Table 4.

Tabel.4 Number of Establishment and Person Engaged By Classification of Industries in Pekalongan Municipality

Classification of Industry	Establishment			Employee		
	2014	2015	2016	2014	2015	2016
Metal Machine and Chemistry Industry	552	700	712	2,369	2,728	2,817
Varied Industry	2,025	2,589	2,619	27,495	29,104	30,282
Agricultural Industry	1,795	3,135	3,145	11,284	13,881	14,079

In the data processing needs to be calculated geometric average. The geometric rating used to express the opinions of the respondents is completely independent. Here is the geometric average usage formula:

$$G = \frac{(\text{data1 x data2 x data3 x ..... x data 5})}{(\frac{1}{5})}$$

There are steps taken in completing the calculation using the AHP method. Here are the calculation steps using the AHP method (K. Shyjith, M. Ilangkumaran and S. Kumanan, 2008).

1. Formation of a hierarchical structure. Setting decision criteria is made in a structured form like a goal tree. The first level is level 0, which is the choosing core competencies in Pekalongan City. The second level is level 1, the selection criteria, the criteria for choosing core competencies are contributed to the development, social impact and equity of income, availability of human resources, infrastructure, value-added prospects, competitiveness, marketing, locality values, geographic conditions, policy and institutional support. The third level is level 3, the alternative industry in Pekalongan City.
2. Formation of a comparative assessment.
3. Specifies the priority order. At this stage it produces a ranking matrix for each level of hierarchy. The number of matrices depends on the number of elements at each level. The order of the matrices at each level depends on the number of elements at the lower level. After all matrices have been developed and the resulting comparison is made, the value of Eigen λ_{max} for each matrix can then be calculated. The value λ_{max} max is a parameter to validate in AHP.
4. Measurement of Consistency Ratio (CR) and Consistency Index (CI) of the nxn matrix created.
5. Determining core industry.

Here are the results of AHP data processing, from the comparison of alternatives on each of the criteria being compared:

a. Criteria 1 : contributed to the development
   Findings $value_{max}$ = 3,114; CI = 0,056; RI = 0,58; CR = 0,098
b. Criteria 2 : social impact and equity of income
   Findings $value_{max}$ = 3,066; CI = 0,032; RI = 0,58; CR = 0,056
c. Criteria 3: availability of human resources
   Findings $value_{max}$ = 3,097; CI = 0,048; RI =0,58; CR = 0,083
d. Criteria 4 : infrastructure
   Findings $value_{max}$ = 3,083; CI = 0,041; RI = 0,58; CR = 0,071
e. Criteria 5 : value added prospects
   Findings $value_{max}$ = 3,088; CI = 0,044; RI = 0,58; CR = 0,076

f. Criteria 6 : marketing
   Findings value$_{max}$= 3,074; CI = 0,036; RI = 0,58; CR = 0,063
g. Criteria 7 : competitiveness
   Findings value$_{max}$= 3,087; CI = 0,043; RI = 0,58; CR = 0,074
h. Criteria 8 : locality values
   Findings value$_{max}$= 3,065; CI = 0,032; RI = 0,58; CR = 0,056
i. Criteria 9 : geographic conditions
   Findings value$_{max}$= 3,001; CI = 0,0006; RI = 0,58; CR = 0,001
j. Criteria 10 : policy and institutional support
   Findings value$_{max}$= 3,055; CI = 0,027; RI = 0,58; CR = 0,047

Based on the results of data processing with AHP method, it can be selected superior industry in Pekalongan City with the following priority order:

Tabel 5. Total Priority of Industrial Classification (AHP results)

Classification of Industry	Total Priority
Metal Machine and Chemistry Industry	0.082
Varied Industry	**0.668**
Agricultural Industry	0.249

The results of data processing using AHP method indicate that which has the highest priority value is varied industry with a weight value of 0.668, then the industry becomes the core competence of Pekalongan City. One part of multifarious industry which has the highest contribution is Pekalongan batik industry. BPS data of 2016 shows, the contribution of manufacturing industry sector to PDRB Kota Pekalongan based on the applicable price of 21.67 percent or Rp1, 5 trillion with a growth rate of 6.23 percent. Meanwhile, the number of workers in the manufacturing industry reached 55,159 people and most of them work in batik industry. So the design strategy that will be made is the development strategy of Pekalongan batik industry.

From the result of the discussion with the batik businessmen of Pekalongan, there is 6 variables that is improving the marketing, support from the government, the development of technology, the development of information media for batik, development of labor, and the development of batik models and products. From the results of processing by using the ISM method, obtained the results of the design sequence stretegi development on the industry that can be done by the development in the city of Pekalongan.

The first step in ISM processing is to create Structural Self Interaction Matrix (SSIM), where the variables are made their constextual relationship by making one variable I and variable j.

Table 6. Structural Self Interaction Matrix (SSIM)

No	Variable	6	5	4	3	2
1	Improving the marketing strategy of batik Pekalongan	V	A	A	A	A
2	Development of information media for batik	V	A	A	A	
3	Development of technology	V	A	X		
4	Support from the government	V	A			
5	Development of batik models and products	V				
6	Development of Labor					

The next step is to make the reachibility matrix (RM) by changing V, A, X and O with numbers 1 and 0.

Table 7. Reachibility Matrix (RM)

No	Variable	1	2	3	4	5	6	Driver Power
1	Improving the marketing strategy of batik Pekalongan	1	0	0	0	0	1	2
2	Development of information media for batik	1	1	0	0	0	1	3
3	Development of technology	1	1	1	1	0	1	5
4	Support from the government	1	1	1	1	0	1	5
5	Development of batik models and products	1	1	1	1	1	1	6
6	Development of Labor	0	0	0	0	0	1	1

The last step is to make Canonical Matrix to determine the level through iteration. After no more intersection, then made a model produced by ISM which is a model to solve the problem, in this case the development of batik industry in Pekalongan City. From the model then will be made an implementation strategy according to the level (level) formed.

Table 11. Canonical Matrix Result

Iteration 1

Variables	Reachability	Antecedent	Intersection	Level
1	1,6	1,2,3,4,5,	1	
2	1,2,6	2,3,4,5	2	
3	1,2,3,4,6	3,4,5	3,4	
4	1,2,3,4,6	3,4,5	3,4	
5	1,2,3,4,5,6	5	5	
6	6	1,2,3,4,5,6	6	1

Iteration 2

Variables	Reachability	Antecedent	Intersection	Level
1	1	1,2,3,4,5	1	2
2	1,2	2,3,4,5	2	
3	1,2,3,4	3,4,5	3,4	
4	1,2,3,4,	3,4,5	3,4	
5	1,2,3,4,5	5	5	
6				

Iteration 3

Variables	Reachability	Antecedent	Intersection	Level
1				
2	2	2,3,4,5	2	3
3	2,3,4	3,4,5	3,4	
4	2,3,4	3,4,5	3,4	
5	2,3,4,5	5	5	
6				

Iteration 4

Variables	Reachability	Antecedent	Intersection	Level
1				
2				
3	3,4	3,4,5	3,4	
4	3,4	3,4,5	3,4	
5	3,4,5	5	5	4
6				

Iteration 5

Variables	Reachability	Antecedent	Intersection	Level
1				
2				
3	3,4	3,4	3,4	5
4	3,4	3,4	3,4	5
5				
6				

The sequence of strategies that can be done in developing batik industry in Pekalongan City based on data processing using ISM method is the first stage of development of technology and development of information media for batik. At this stage can be done the latest technology development to help the process of making batik to make it easier for business actors in doing Pekalongan batik production. The development of information media for batik products also needs to be done to batik Pekalongan better known by the wider community, so as to increase awareness on batik products in Pekalongan City. In the second stage of development of batik product in Pekalongan City. At this stage, Pekalongan batik entrepreneurs need to continue to do new development of batik products, in order to improve the competitiveness of batik products Pekalongan, so as to achieve excellence will batik products. The third stage is to get support from the local government. Local government needs to take part in helping batik industry in Pekalongan to give opportunity for business people to more easily develop their products, and have protection and support from government. The fourth stage is improving marketing strategy of Pekalongan batik. The marketing strategy of Pekalongan batik products also needs to be done so that the products can compete as well as excel compared with batik products from other regions. The fifth stage is to do development of labor. Human resources also need to be considered so that they can participate can develop so as to increase the competence of the human resources.

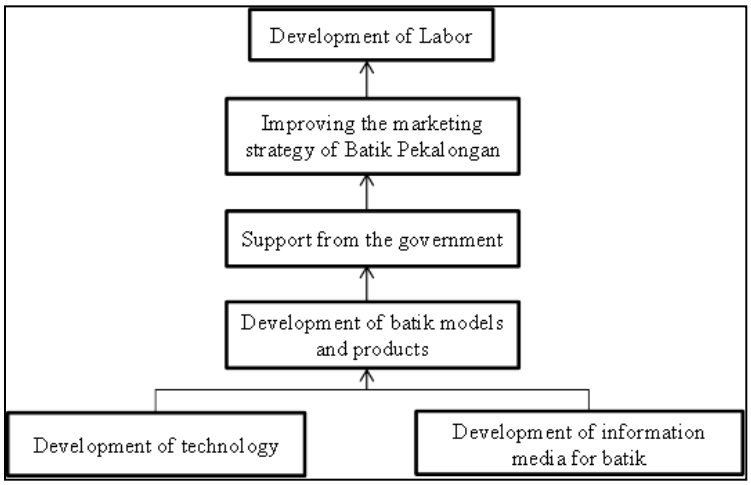

Figure 2. The Strategy Sequence of Development Batik Pekalongan (ISM Result)

5. Conclusion and Recommendation

Core competence is determined from the largest PDRB, which is the largest contributor in economic activity Pekalongan City. Determination of core industrial competence in Pekalongan City is done by using Analytical Hierarcy Process method). There are 3 levels in the determination of core competencies. The first level is level 0, which is the goal to be achieved, namely choosing core competencies. The second level is level 1, the selection criteria. Criteria for choosing core competencies are contributions to regional development, social impact and equity of income, availability of human resources, infrastructure, value-added prospects, competitiveness, marketing, locality values, geographic conditions, policy and institutional support. The last level is level 2, which is an alternative industrial sector to be selected. The industrial sector that is used as an alternative option is based on the industry sector which has the highest distribution, namely the Trade Industry, and the Processing industry. The election to find out the core competencies that are owned by the Pekalongan city, selected from the processing industry. In processing industry which is in the city of Pekalongan is divided into three classifications of industries, namely metal machine and chemistry industry, varied industry, and agricultural industry.

The results of data processing using AHP method indicate that which has the highest priority value is varied industry with a weight value of 0.668, then the industry becomes the core competence of Pekalongan City. One part of multifarious industry which has the highest contribution is Pekalongan batik industry. Based on the result of the discussion with the batik businessmen of Pekalongan, there is 6 variables that is improving the marketing, support from the government, the development of technology, the development of information media for batik, development of labor, and the development of batik models and products.

The recommendations for further research are to get more insight not only from the existing industry side but also from local government, as well as other experts as inputs for the design and determination of strategies. The recommendation for future research is need for further research into the design of an industry strategy on the basis of core competence. Requires application of core competencies in other regions or industries.

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