



## The Structural Model of Problems and Prioritized Programs to Develop Village Enterprises in Jambi Province

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### Abstract

The number of village enterprises in Jambi Province until 2017 was only 320 of 1,551 villages. Need more village enterprises to be established in order to increase the economic independence of rural areas and their community. However, that is not easy since many existing village enterprises currently experience some difficulties. This study aims to analyze problems faced by village enterprises and programs prioritized to overcome the problems. The research conducted in three different locations that represent western part of Jambi, middle and eastern part of Jambi. Each of them had different core businesses, namely Dusun Dalam of Kerinci Regency (core business is processing of agricultural products), Lubuk Beringin of Bungo Regency (core business is tourism village), and Dataran Kempas of Tanjung Jabung Barat Regency (core business is the production of compost). Data collected by doing observation and focus group discussion and then analyzed by using Interpretative Structural Model (ISM). This study reveals that the main problems concerned with human resources even though they are expressed by stakeholders in each village enterprise with different narratives. Issues concerning capital also arise, but they are not in the top position of all problems faced. The programs they put in priorities are some training in area of leadership, accountancy, marketing, entrepreneurship and others that related to the development of human resources.

Keywords: core business; human resource; self-ruling; village enterprise

### 1. Introduction

The independence of the village community in managing natural resources and production is still low. This is reflected in the higher poverty rate in rural areas compared to urban areas. According to the latest BPS report, despite the decline of poverty in Indonesia, the number of poor people in rural areas remained higher than in urban areas. The percentage of poor people in urban areas in September 2017 was 7.26 percent, down to 7.02 percent in March 2018. While the percentage of poor people in rural areas in September 2017 was 13.47 percent, down to 13.20 percent in March 2018. In March 2018, the number of poor people in urban areas compared to rural areas was 10.14 million: 15.81 million people (BPS Provinsi Jambi, 2017).

Poverty pockets in Jambi Province were also formed in rural areas, whereas as many as 800,719 villagers worked in agricultural sectors (Agriculture, Forestry, Hunting and Fisheries). The number of poor people in Jambi Province in 2016 was 290,810 people, an increase from the year 2013 (281,570 people). However, the proportion of poor people decreased from 8.42% (2013) to 8.4% (2016) (BPS Provinsi Jambi, 2017). Innovation is needed to develop economic independence, but government efforts to push innovation in community are not satisfying. One of the inhibiting factors is too much government intervention that is counterproductive to stimulate creativity and innovation of rural communities to manage

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and run economic machinery in the countryside. The system and mechanism of economic institutions in rural areas do not work effectively while the dependency on government assistance is high; all dim the spirit of independence.

Village Enterprises (VE or BUMDes in *Bahasa*) are expected to encourage village independence. Village Enterprise is regulated in Law Number 6 of 2014 concerning on Villages. Article 87 verse (1) to (3) state that the village can establish a village-owned business entity that is managed with a spirit of kinship and cooperation, and can run a business in the financial and public services following the provision legislation. Village Enterprise is defined as a business entity that entire or part of its capital is owned by the village through direct participation that originates from village assets. The assets are especially separated in order to manage assets, services, and other businesses for the highest welfare of the village community.

The establishment of VE is intended to reduce the role of intermediaries that causes the increase of transaction costs from producers to end consumers. Through this institution, it is expected that every rural producer can enjoy a margin of selling price of products at reasonable production costs and consumers do not have to bear the expensive purchase price. The other roles of village enterprises are to help funding the consumptive and productive needs of the members of community as well as to be the leading distributor to fulfill the needs of nine basic commodities besides village enterprise functions to foster the activities of economic actors in the countryside.

The effective way of village enterprise is by accommodating economic activities of the community in the form of an institution or business entity that is professionally managed but still relies on the original potential (local resources) of the village. Some village enterprises in Jambi Province are not legalized yet through a formal village regulation. Most of the village enterprises were established in 2015 and 2016 in response to having funding from Village Fund (Dana Desa). According to Jawa Post (2017), Central Government continues to increase its allocation, between IDR 600 million to IDR 700 million per village. In 2017, the Village Fund allocation increased to IDR 60 trillion. In 2018 the Village Fund increased to IDR 120 trillion, so it is expected that each village would receive an average budget allocation of IDR 1.4 billion /village.

The village enterprise has to build active management and to guarantee favorable capital turnover. Otherwise, it will potentially lead to a new dependency on government. This is contrary to the initial idea of village enterprise establishment. Another potential risk is the emergence of fraud and depreciation of village funds that will lead to social conflicts and legal problems in the future. Based on this condition, it is important to find out the main obstacles of developing village enterprises in Jambi Province and the most influential programs to develop them according to stakeholders' points of view.

This study aims to analyze problems faced by village enterprises and programs prioritized to overcome the problems. This study is expected to provide new information about the main problems faced by stakeholders of VE and the programs they need to overcome these difficulties. Base on the study result, there will be an interesting discussion about whether the problems felt by the BUMDes actors are aligned with the needs of the programs they express to us. It will give enlightenment about the stakeholders' ability in Jambi Province to assess their own needs in developing VE.

## **2. Methods**

This study was conducted from March to October 2017, using qualitative and modeling approach. The location of the study was chosen purposively with following considerations: 1) locations represented western, middle and eastern part of Jambi Province, and 2) the core business in every village enterprise was different that represented food processing and agriculture (paddy), tourism /community forest and compost production. Three villages selected, namely: Dataran Kempas Village, Sub District of Tebing Tinggi (Tanjung Jabung Barat Regency), Dusun Dalam Village, Sub District of Siulak (Kerinci Regency), and Lubuk Beringin Village, Sub District of Bathin III Ulu (Bungo Regency).

Qualitative data that's generated during this study can be grouped into two categories, namely: (a) observational data and (b) written data. The data were collected through observation, focus group discussion (FGD), and interview with some source persons using questioner of ISM. The selection of source persons was also made on purpose (6 persons in every village enterprise). They represent of: (1) government officer in regency level whose daily work is dealing with village government (we selected them from Village Government Services Office (*Kantor Pemerintah Masyarakat Desa*)); (2) village assistant that's hired by the Ministry of Villages, Disadvantaged Regions, and Transmigration; (3) village head; (4) director of village enterprise; (5) informal community leaders; and (6) youth figure.

In order to find out the obstacles and influential programs to develop village enterprises, the Interpretive Structural Model (ISM) analysis was carried out in this study. Interpretive Structural Model (ISM) method is one computer-based methodology that helps groups identify relationships between ideas and fixed structures to complex issues. The structure model, according to Norberg and Johnson (1979) is a technique that helps to analyze the current situation both the effect for people near and far due to a change in progress. This method can produce information in the form of a structure that will lead to an important understanding of solving a problem. The communicative value of the ISM model lies in the fact that ISM can transform a building model based entirely on feeling intuitive (completely intuitive process) into a model with a more systematic approach that improves communication in diverse (heterogeneous)

groups and parties outside the group (Lendaris, 1981). According to Chandramowli, Transue, and Felder (2011) this method is called interpretive because the inputs of sub-elements to be analyzed are obtained from interviews with experts, group discussions or literature studies. The nature of pairwise comparison relationships between elements is also obtained through this process.

The steps of ISM as follows (Saxena et al., 1990): (1) Identification of elements and sub-elements through brainstorming/FGD; (2) Formulation of contextual relationships; (3) Formulation of a Structural Self Interaction Matrix (SSIM) through expert surveys; (4) Changing the SSIM matrix into the Reachability Matrix /RM Matrix and then becoming a binary matrix; (5) Classification of elements in tiered levels; (6) Canonical Matrix: Grouping elements in the same level; (7) Arranging the matrix Digraph: is a concept derived from the Directional Graph and, a graph of the elements that are interconnected directly at a hierarchical level; and (8) Interpretive Structural Model: ISM is generated by moving all the number of elements with a description of the actual element.

### 3. Result and Discussion

#### 3.1 Problems and Programs in Village Enterprise Maju Jaya of Lubuk Beringin Village

The results of FGD in Village Lubuk Beringin gave us some information about constraints faced by the village enterprise and programs that would be useful to overcome the problems as presented in Table 1.

Table 1: Details of elements and sub-elements of constraints/problems and programs needed for the development of village enterprise in Lubuk Beringin Village

Elements	Sub Elements
Constrains/obstacles	1. The governance of the Village government 2. Conflict of interest between Head of Village Government and Director of VE 3. Transitional village governance 4. Quality of human resources of VE 5. Lack of monitoring 6. The determination process of VE' business branches 7. Business conflicts with other business owners in this village 8. Third-party and individual capital investment
Programs needed	1. Entrepreneurship and business management training 2. Recruitment of VE' managerial members 3. Strengthening regulations to support VE 4. Developing a dialogue with supervising agencies 5. Establishing business licenses 6. Preparation SOPs for establishing a business branch 7. Establishing business networks /partnerships 8. Conducting product standardization 9. Business promotion

Source: Authors' Analysis (2017)

The FGD result will be used to define the relationships between sub-elements in the form of structural self-integration matrix (SSIM) and to build reach accountability matrix (see Table 2). Relations between sub-elements in each element are defined based on the consensus of the interviewees. Relationship between sub-elements is chosen by the respondent from one of the following four types of relationships, namely: V (sub-elements i affects sub-elements j); or A (sub-element j affects sub-elements i) or X (sub-elements i and j affect each other) or O (sub-elements i and j have no relationship).

Table 2: Final Reachability Matrix of Constraints/Obstacles

Description of Sub-element (i-j)	1	2	3	4	5	6	7	8	DP	R
The governance of Village government	1	1	1	1	0	1	1	1	7	2
Conflict of interest between Head of Village Government and Director of VE	2	1	1	1	0	1	1	1	7	2
Transitional village governance	3	1	1	1	0	1	1	1	7	2
Quality of human resources of VE	4	1	1	1	1	1	1	1	8	1
Lack of monitoring	5	1	1	1	0	1	1	1	7	2
Determination process of VE' business branches	6	0	0	0	0	0	1	1	3	3
Business conflicts with other business owner in this village	7	0	0	0	0	0	0	1	2	4
Third party and individual capital investment	8	0	0	0	0	0	0	1	2	4
DP : Driver Power D : Dependence L : Level R : Ranking	D	5	5	5	1	5	6	8		
	L	3	3	3	4	3	2	1		

Source: Authors' Analysis (2017)

Based on this process, and SSIM matrix is formed. ISM's final step is to build a Cross-Reference Multiplication Applied to Classification (MICMAC) Matrix and Partition Reachibility Matrix or to separate sub-elements into different levels to form a visual representation of a system. MICMAC analysis helps to classify the character of a variable in the system and how to manage it. Based on this final RM, a Structured Model Diagram can be arranged as follows.

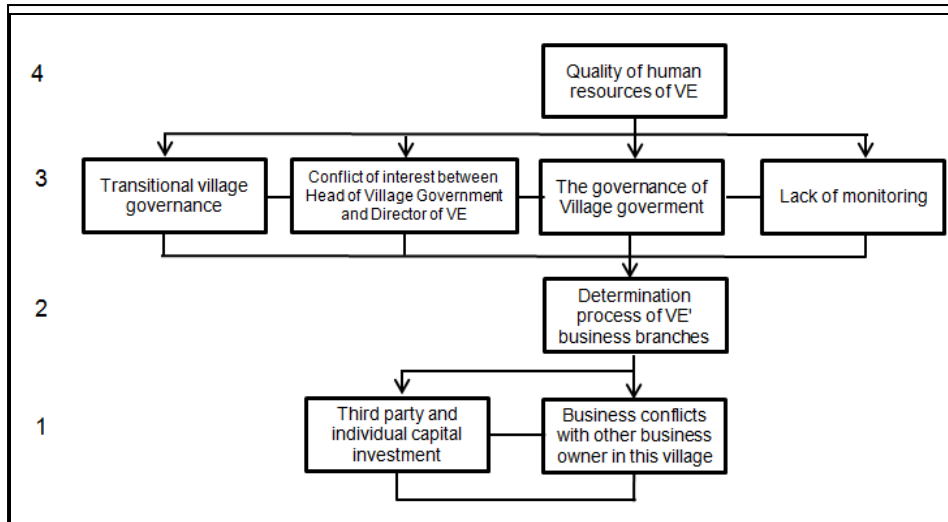


Figure 1. ISM-based model of constraint element in Village Enterprise Maju Jaya (Source: Authors' Analysis, 2017)

From Figure 1, it can be seen that the most influential problem of the village enterprise in this village is the quality of human resources. This sub-element is a free variable. At level 3 there are four sub-elements that are categorized as an unstable sub-element. Any intervention on one of them will affect the other sub-elements. The other sub-elements in level 2 and 1 are categorized as non-free sub-elements.

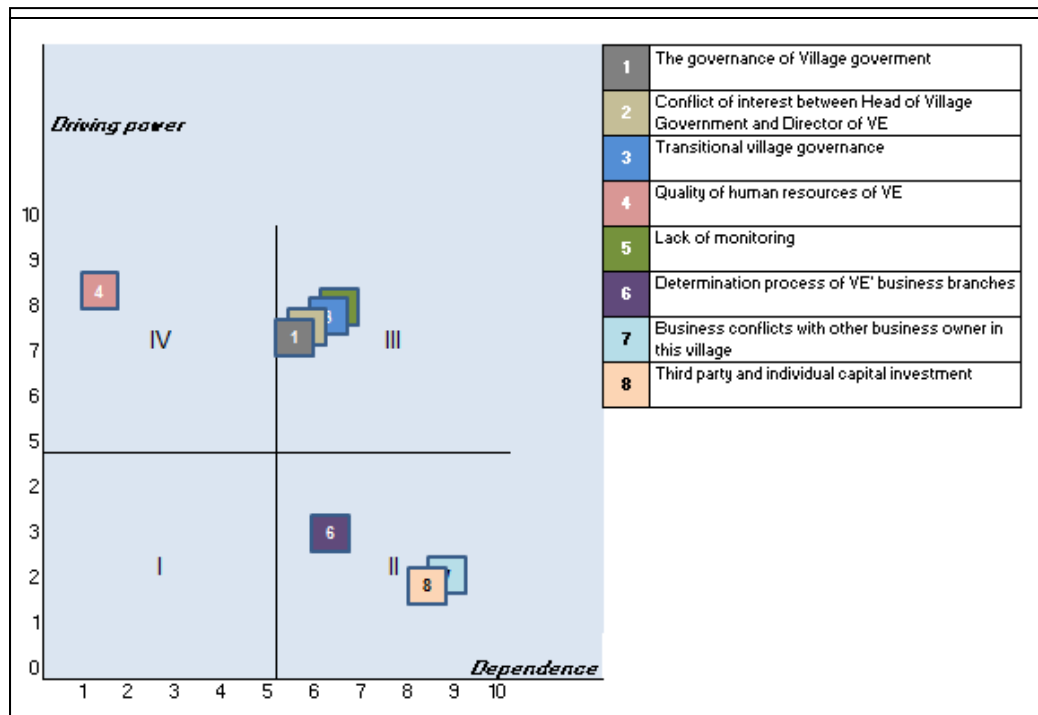


Figure 2. Matrix of Driving Power-Dependence for the sub-elements of constraint in Village Enterprise Maju Jaya (Source: Author's Analysis, 2017)

In Figure 2, we can interpret the character of each sub-element based on its position in the quadrant. According to Lim et al. (2017), this diagram can reveal the strength and weaknesses of each sub-element. There is one sub-element of constraint in quadrant IV (quality of human resources of village enterprises). It means that this problem is so dominant (high driving power and low dependence power), that it must be resolved first before dealing with the other sub-elements of constraint. There are four sub-elements in

quadrant III (high driving power as well as dependence power). These sub-elements must be studied carefully before conducting any action, and according to Lim et al. (2017), all sub-elements in this quadrant are considered top priority. They are unstable, and if there are impacts on these sub-elements, there is an effect on other sub-elements as well as themselves.

Three sub-elements are in quadrant II are categorized as non-free sub-elements. They can be solved after the other problems in quadrant IV and III are handled well. There is no sub-element in quadrant I. If there is any, the sub-elements here can be just ignored because it has no importance to the system or according to Lim et al. (2017), this sub-element is almost disconnected from the system.

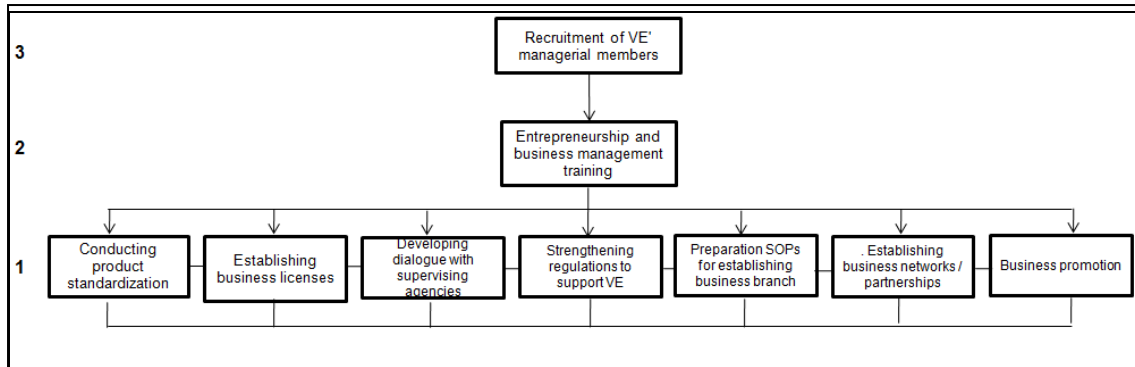


Figure 3. ISM-based model of a program element in Village Enterprise Maju Jaya (Source: Authors' Analysis, 2017)

The result analysis of program needed to develop Village Enterprise in Lubuk Beringin, it can be seen in Figure 3 whereas sub-element "Recruitment of village enterprise' managerial members" is considered by the respondents as the most influential program's sub-elements, followed by sub-element "Entrepreneurship and business management training." Both are free variables and the residual of the system. As many as seven sub-elements are arranged at level 1 and categorized as unstable sub-elements. They must be carefully handled since they will affect each other as an impact of intervention or action.

### 3.2 Problems and Programs in Village Enterprise Maju Jaya of Lubuk Beringin Village

From Figure 4 it can be seen that the problems in developing village enterprise here are the management of Village Enterprise is not transparent and Managerial Village Enterprise/leadership problems. These two sub-elements are the remains of the system and called free variables. The same character also applies for sub-element "financial transparency" although its hierarchy in level 3.

The relationship between the sub-elements in level 2 is unstable. Every action on a sub-element can have an impact on other sub-elements, and feedback increases the impact. Hence these sub-elements must be studied carefully while sub-elements in level 1 (conflict between village government's management) are categorized as non-free sub-element.

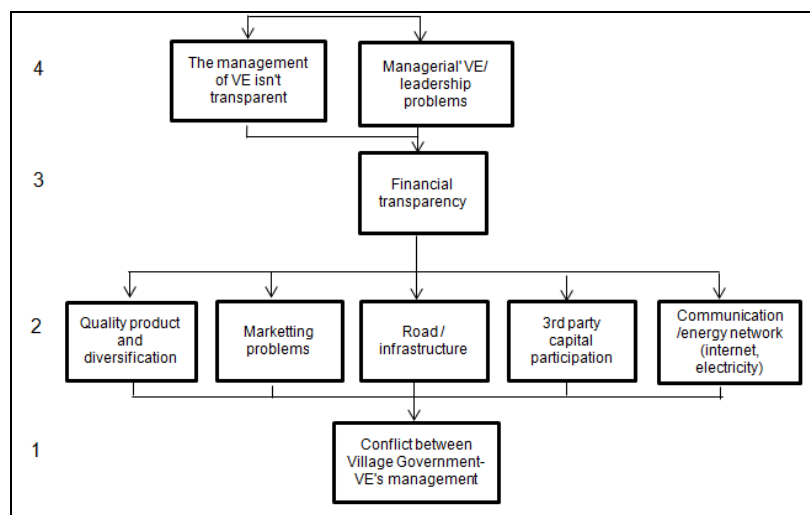


Figure 4. ISM-based model of a program element in Village Enterprise Maju Jaya (Source: Authors' Analysis, 2017)

In Figure 5, at level 4, there are four sub-elements that are considered by the respondents as the most influential programs and one sub-element in level 3. Those sub-elements are categorized as a free

variable, and they are the residual of the system. While in level 2 there are two sub-elements that is considered as unstable, so they must be handled carefully because intervention on a sub-element can influence other sub-elements. The four sub-elements in level 1 are categorized as non-free sub-elements.

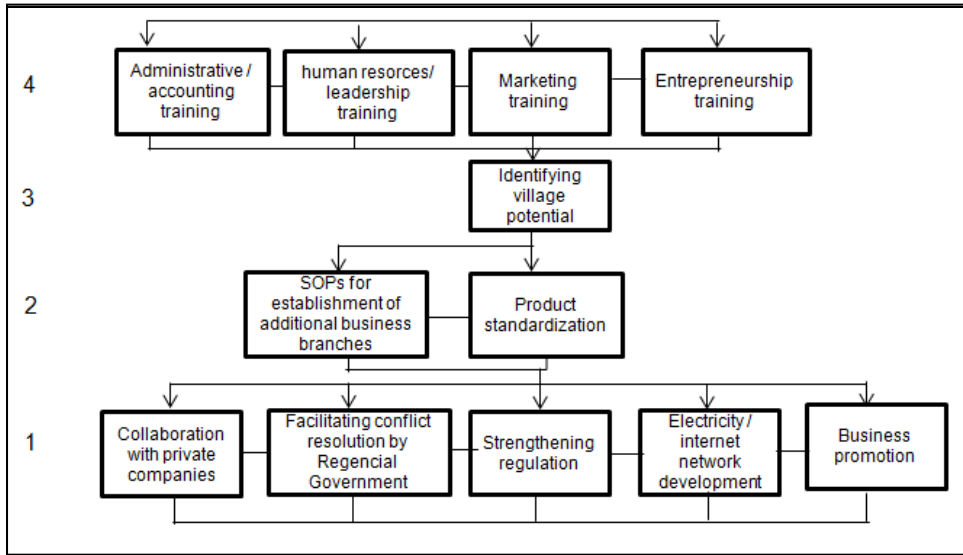


Figure 5. ISM-based model of a program element in Village Enterprises Karya Dermawan (Source: Authors' Analysis, 2017)

### 3.3 Problems and Programs in Village Enterprise Gerbang Nusantara of Dataran Kempas Village Kab. Tanjabbar

Figure 6 below shows the most influential problems on the development of village enterprises in this village; they are the legalization of village enterprise managerial and Problems of VE' human resources /managerial, followed by other obstacles as seen at level 2 and level 1. Two elements at level 3 are free variables, while five elements at level 2 are categorized as unstable sub-elements and must be handled carefully. One sub-element in level 1 is categorized as a non-free sub-element.

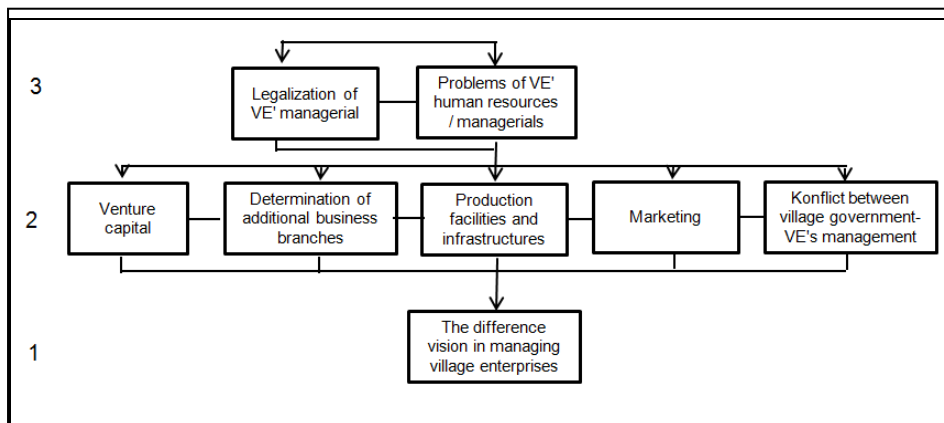


Figure 6. ISM-based model of constraint element in Village Enterprises Gerbang Nusantara (Source: Authors' Analysis, 2017)

In Figure 7, it can be seen that the rank or level of program sub-elements. At level 4, there are the two most influential sub-elements (Socialization of functions and benefits of village enterprise as well as Recruitment of village enterprises managerial members and followed by its legalization) that are categorized as free variable while at level 3 there are three sub-elements. They are unstable sub-elements. At level 2 there is one sub-element (business promotion) and one sub-element at level 1 (strengthening supervising by government agency). Both are non-free sub-elements.

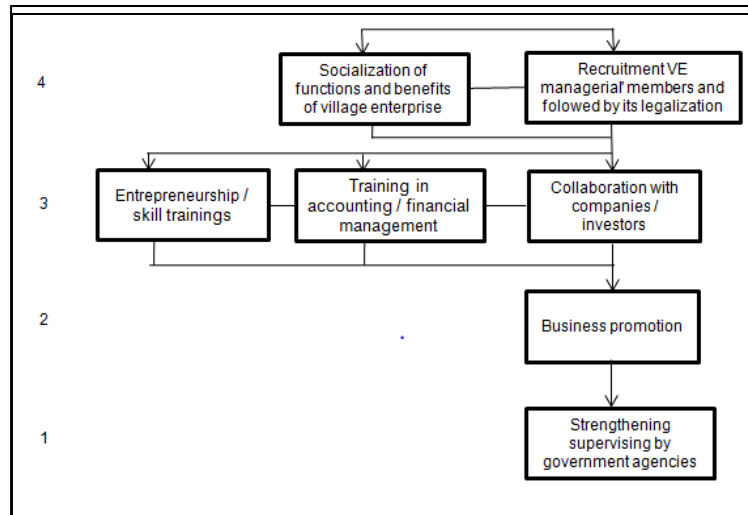


Figure 7. Diagram Model of Structured Program Element in Village Enterprises Gerbang Nusantara (Source: Authors' Analysis, 2017)

### 3.4 Discussion

In terms of constraints, there are similarities among the three village enterprises. They face the problem of quality of human resources as the biggest or most substantial obstacle though each of them expresses it with different narratives/expressions. The narrative used by the source persons as follows: Problems of VE' human resources /managerial (Village Enterprise Gerbang Nusantara), Managerial's VE/leadership problems (in Village Enterprise Karya Dermawan) and Quality of human resources of VE (Village Enterprise Maju Jaya). According to Susilo dan Purnamasari (2016), who conducted research in Village Enterprise Hanyukupi in Ponjong Village and Village Enterprise Sejahtera in Bleberan Village of Gunungkidul Regency, this happened because the recruitment of VE's managerial was not through a transparent process. Besides, the village enterprise did not empower the surrounding community. VE's manager hired employees from outside the village, and those employees had permanent jobs, so village enterprise business was not their primary focus. That would be much better if the managers of VE call university graduate that originate from their village to come back home and work for VE. According to Zhang et al. (2018), the direct driving force of rural economic reconstruction can be affected by rural elites who return to their homeland to start a business. Besides human resource matter, technology innovation, resource endowments and government support also contribute to this process.

Discussing the management of village enterprise, Article (6) of Minister of Home Affairs Regulation No. 39/2010 not mention the privilege of local community to be recruited as the manager/staff of village enterprise. Based on this regulation, the requirement that must be fulfilled as follows: (a) experienced or professional management; (b). get management guidance; (c). received internal and external supervision; (d). adheres to the principles of transparency, accountability, trustworthiness, and rationality; and (e). serving the needs of the community well and fairly. This means that everyone (from outside or inside that village) has the same opportunity to work as director or staff of village enterprise as long as he/she is capable and getting mandate from the Village Consultative Body (Badan Permusyawaratan Desa), except the Bylaw (in Bahasa: *Anggaran Rumah Tangga*) of village enterprise restricts the outsider to be the manager (or staff) of village enterprise. In three VE, which are studied there is no open recruitment of manager/staff of VE. They are elected based on village discussion (*musyawarah desa*) and most affected by the preference of the village's elites. Open recruitment and transparent process should be applied to get the best candidate for manager/staff of VE. However that is not yet realized (Susilo dan Purnamasari, 2016). Open recruitment can reduce conflict as well as safe democracy. Base on the research of Faturahman (2018) in Tiremenggall Village Sub District Dukun of Gresik Regency, open recruitment of village officials and direct supervision by the community are important elements in maintaining the life of democracy.

In these three village enterprises, the role of Village Head is utterly dominant. This relates to the Village Fund that has been invested in the village enterprise which is under his supervision and his traditional role as a respectful figure. Not wonder if the election of director of village enterprise quite often bases on Village Head's preference. In one side, that may benefit the village enterprise since they get full support from the village head but it is also risky of abused power (collusion, corruption, and nepotism acts). According to Li et al. (2019), rural elites are crucial actors in the transformational development of successful villages. Base on their research in China, integration and coordination of internal and external driving forces, participation, negotiation, and cooperation among key actors and the formation and development of rural networks are the important elements for the success village development. The dominance of Village Head potentially ruins the health of VE since no one dares to argue his opinion. The role of balancer should be played by the Rural Representative Body (*Badan Perwakilan Desa*). However that is not visible in three VE that we studied. According to Cahyono (2016), the Rural Representative

Body is too confident and claim themselves as aspiration bearer of villagers, yet they fail to fight the villagers' voice.

The current village enterprise's capital generally comes from the Village Fund. They began to build cooperation with other parties such as the banking sector, private companies, and universities, however, caused by limited skill or training and lack of improvement in management, the development of village enterprises is slow. There is no third party capital participation yet but from the viewpoint of the resource persons that is not the biggest problem (as can be seen in Figure 4 where the constraint of third party capital is at level 2 or not as important as the obstacles in levels 4 and 3). The management of human resources and business skills of the village enterprise are more important to be addressed in advance. The participation of the community to invest in VE is none, perhaps they are not convinced the village enterprises can return the capital they invest.

Among three village enterprises, only one VE that got additional capital from Corporate Social Responsibility (CSR) fund of a national private company while the other two VE is still struggling to get another source of funding. In future, the competition among VE to sell their products and to get investors will be very hard since many villages have the same superior commodity. Only village or Village Enterprises that can transform and response quickly toward the demand of market will survive. According to Pudianti et al. (2016) Government can help the development of rural areas that show good ability to transform. Such kind of village can be identified by doing a visual analysis to look at some elements that indicate the power of survival. It could be seen by checking the availability of the culture inherent within the community. Hutabarat dan Pandin (2014) says that small and medium enterprises in Indonesia face two main problems, financial and non-financial (organizational management). There is imbalance between available and accessible funds, no systematic approach to funding, high transaction costs, the complexity of credit procedures that are not comparable with the small value of loans, lack of access to official funding sources, and many of these businesses are not yet bankable. Many institutions that are established and supported by local government failed to develop because of the manager incapable of managing the fund. One example was what happened in *Kepulauan Riau* (Kepri Province), a program named P3DK (An Acceleration of Development Village Program). The program was designed to empower the local people to develop infrastructure and economic development at village level. This program was conducted from 2006 to 2011, where each village was allocated fund as many as IDR 500 million. This program failed to improve the economy in rural areas because of lack of people's intention to return the loan and no punishment to those who did not return the loan. It was recommended to revise the loan system (Matridi et al., 2015). According to Prasetyo (2016), community participation in VE activities is low because community knowledge about VE program is not sufficient. The pattern of fund utilization of VE is more on the physical development of the village while the contribution to community empowerment is still not optimal due to several constraints especially the limitation of VE budget

In terms of programs needed, the resource persons generally believe that programs related to human resources and their quality improvement are more important than other programs. Those programs are the recruitment of village enterprise managers, marketing training, human resources /leadership training, administrative /accounting training, and entrepreneurship training. According to Purnamasari et al. (2016), lack of human resources capability to run financial management and lack of information about the establishment of village enterprises are some of the problems found in their study in Warungbambu Village, East Karawang District, Karawang Regency.

Organization development, according to Zahra dan George (2002) is strongly influenced by the ability or absorption capacity. Absorptive Capacity is the ability of a company to recognize the value of new external information, assimilate it and apply it to reach goals. Absorptive capacity as a dynamic capacity embedded in company routines and processes, which drives organizational change and evolution. Established absorption capacities have four dimensions, grouped into two main categories: potential capacity (knowledge acquisition and assimilation) and awareness capacity (transformation and exploitation of knowledge). Using the concept above, Zahra and George (2002) develop a model of expansion of absorption capacity, which highlights new determinants and new results related to the development of company competitiveness. They maintain that prior knowledge, which is equivalent to company experience, is important for developing absorption capacity, but they emphasize other factors, such as the source of internal knowledge and external knowledge equally. As a new model of business in rural areas, the development of a village enterprise that can improve the welfare of its members requires the skill and sharpness of the business intuition. Both abilities are not gifted, but they must be learned and honed. According to Ausrod et al. (2017), business models must adjust and shape the context in which they are located. A new form of business can design a business model from the bottom up while adapting and shaping the context in which the business operates. The business model is not merely a final purpose but can also function as a tool. Managers may not have chosen the best business model at first, but this temporary business model can be deployed to strengthen the company and its ecosystem. Because specifically designed interim business models can facilitate the formation of business ecosystems, then they can be used to get more knowledge about specific conditions. According to Adawiyah (2018), one of the most important strategies for developing VE is education and training activity. Education is provided in the form of assistance to VE's administrators with materials of management and learning application programs. Training is prioritized for the Manager of VE and then he shares the results of training to other staff. The training is also directed to the public in order to increase public knowledge about VE and its various activities. This strategy will strengthen aspect of social capital namely community participation.



#### 4. Conclusion

The main problems faced by three village enterprises are concerning on human resources matters. It seems that the stakeholders realize it, and they agree to put all programs related to the improvement of human resource skills in the high priority (marketing training, human resources /leadership training, administrative/accounting training, and entrepreneurship training). This finding shows us that the stakeholders in village enterprises are smart enough to assess themselves (their weaknesses and how to overcome the problems). Issues concerning capital also arise, but they are not in the top position of all problems faced. For the time being, VE can operate quite well with the support of the Village Fund, and it is too hasty to expect villagers to invest since the VE performance is not convinced yet.

The role of elites in the village, such as Village Head may affect VE in either a positive or negative way. Too much intervention of Village Head may lead to a conflict among VE management. On the contrary, he cannot be too indifferent since he has to oversee village funds invested in VE.

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