

## The Analysis of Village-Owned Enterprises (BUMDes) Management Using Interpretive Structural Modeling: A Case Study at BUMDes Niagara, Bandung Regency

**Author:**

**Agni Grandita Permata Sari**

**Affiliation:**

Governance Institute of Home Affairs, Jl. Raya Bandung-Sumedang KM. 20 Jatinangor,  
Sumedang Regency 45363, **Indonesia**

**e-Mail:**

[agni.grandita@ipdn.ac.id](mailto:agni.grandita@ipdn.ac.id)

**\*Corresponding author**

Agni Grandita Permata Sari  
Governance Institute of Home Affairs (IPDN)  
e-Mail: [agni.grandita@ipdn.ac.id](mailto:agni.grandita@ipdn.ac.id)

Received: April 24 ,2021

Revised : May 04 ,2021

Accepted: May 20 ,2021

Available Online: August 20 ,2021

### **Abstract**

*The Central Government and West Java Province are intensively issuing policies to increase village empowerment, especially since village funds were distributed in 2015. Although these funds have positive implications for increasing the number of BUMDes, in general, the impact of BUMDes has not been too significant for the increase of the village's original income (PADes). West Java Province as a province that is very aggressively launching programs for villages development does not have BUMDes with 'Big' and 'Advanced' status, and only one with 'Mature' status, namely BUMDes Niagara in Bandung Regency. This paper aims to know the management, to identify and to analyze the most influential actors, supporting and inhibiting factors, and the changes expected to improve the management of BUMDes Niagara in Bandung Regency. The method used is qualitative with an inductive approach. Data analysis used the Interpretive Structural Modeling (ISM) method. The results showed that the management of BUMDes Niagara was elitist in that the village head and BUMDes manager played a major role in the development of BUMDes. Furthermore, the constraint analysis shows that the low quality of human resources is the most dominant problem. On the other hand, the factor of village potential and the commitment of the village head are the supporting factors that are most decisive. The above conditions converge on the need for the involvement of other parties, especially the government in providing guidance and assistance to Niagara BUMDes.*

**Keywords:** BUMDes Management, Interpretive Structural Modeling, Village Original Income

## Abstrak

Pemerintah Pusat dan Provinsi Jawa Barat sedang gencar-gencarnya mengeluarkan kebijakan untuk meningkatkan kemandirian desa terutama semenjak dana desa disalurkan tahun 2015. Walaupun dana tersebut berimplikasi positif terhadap meningkatnya jumlah Badan Usaha Milik Desa (BUMDes), secara umum dampak dari BUMDes tersebut belum terlalu signifikan bagi peningkatan Pendapatan Asli Desa. Provinsi Jawa Barat sebagai provinsi yang sangat gencar membentuk program untuk desa sayangnya tidak memiliki BUMDes yang berstatus Besar dan Maju, dan hanya satu yang berstatus Matang, yaitu BUMDes Niagara di Kabupaten Bandung. Tulisan ini bertujuan untuk mengetahui pengelolaan, mengidentifikasi dan menganalisis aktor yang paling berpengaruh, faktor pendukung dan penghambat, dan perubahan yang diharapkan untuk peningkatan pengelolaan BUMDes Niagara di Kabupaten Bandung. Metode yang digunakan adalah kualitatif dengan pendekatan induktif. Analisis data menggunakan metode Interpretive Structural Modelling (ISM). Hasil penelitian menunjukkan bahwa pengelolaan BUMDes Niagara bersifat elitis dimana kepala desa dan pengelola BUMDes sangat berperan dalam pengembangan BUMDes. Selanjutnya analisis kendala menunjukkan rendahnya kualitas sumber daya manusia adalah permasalahan yang paling dominan. Sebaliknya, faktor potensi desa dan komitmen kepala desa merupakan faktor yang mendukung yang paling menentukan. Kondisi di atas mengerucut pada kebutuhan akan keterlibatan pihak lain, terutama pemerintah dalam melakukan pembinaan dan asistensi kepada BUMDes Niagara.

**Kata kunci:** Pengelolaan BUMDes; Interpretive Structural Modelling; Pendapatan Asli Desa

## INTRODUCTION

The village has a strategic role because the village is a forefront institution for the implementation of all government activities in Indonesia (Jurdi, 2019). Historically, the term 'village' was first put forward by Mr. Herman Warner Muntinghe, a Dutch citizen, a member of Raad Van Indie during the British colonial period, who was an assistant to the British Governor General who came to power in 1811 in Indonesia (Nur, 2011). During its development, the position of the village was inseparable from the dynamics of politics and state administration in each regime. The shift is between the two poles, namely the village as an independent community (self-governing

community) and the village as a local self-government institution (Wasistiono, 2019). The village experienced a long setback during the New Order regime because the village only functions as an extension of the central government (Fathudin et al., 2020). At that time, the level of democratization at the village level was really at its lowest point. After the reform was rolled out, the government tried to restore the true 'face of the village' until finally the Law of the Republic of Indonesia Number 6 of 2014 concerning Villages was issued which brought significant changes to the position of villages in Indonesia.

One of the quite important changes is that the state gives respect to the village by recognizing the village's status as an entity that has genuine autonomy. (Phahlevy, 2016). The village finally has the space to regulate and manage its own territory, one of which is to improve its economy based on the initiative of the village community (Zarkasi, 2018).

The central government through the Ministry of Villages, Development of Disadvantaged Areas, and Transmigration has made various efforts to strengthen villages through rural stimulus programs, with the hope that this stimulus will make the village more independent both in terms of government management and financial. These stimulus programs include the distribution of village funds of Rp1.4 billion per village in stages, and the preparation and development of 5,000 Village-Owned Enterprises (BUMDes) (Hamidi et al., 2015). Through the BUMDes, the village government can open business opportunities for village communities to be independent and later on will also provide opportunities for the village to be economically

independent in accordance with the potential of the village.

The distribution of village funds has increased rapidly from Rp20.8 trillion in 2015 to Rp72 trillion in 2020 (Firman, 2021). The same trend is also with the formation of BUMDes, each year there is an increase in the formation of BUMDes in almost all regions of Indonesia. Until 2020, there were 51,973 BUMDes in Indonesia. When compared with the 2015 data, the number of BUMDes is only 11,945 BUMDes (Ministry of Village, 2020).<sup>1</sup>

The West Java Provincial Government is one of the provinces that has provided many programs for the development of BUMDes. The West Java Province Mid-Term Development Plan 2018-2023 prioritizes village development known as the Village Development Movement (*Gerbang Desa*). Development plans related to the village development movement include: one village one BUMDes/One Village One Company (OVOC), digital villages, village patriots, one CEO one BUMDes, champion family villages, independent prosperous villages, tourist villages, greet residents (*sapa warga*), champion Integrated Healthcare Center

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<sup>1</sup> BUMDes in some extends differs from BUMN or BUMD. BUMDes is defined as Legal entities established by the village and/or together with some villages to manage businesses, utilize assets, develop investment and productivity, provide services, and/or other types of business for the greatest welfare of the Village community (Art. 117 of Law 11/2020 on Cipta Kerja). While the definition of BUMN is a business entities whose capital is wholly or partly owned by the state through direct

participation originating from separated state assets. (Article 1 point 1 of Law 19/2003 on BUMN) and definition of BUMD is the business entities whose capital is wholly or mostly owned by the region (Article 1 point 40 of Law 23/2014 on Local Government). The main difference is that BUMDes is established to create a strengthening of the village economy, while the others which are only profit-oriented, BUMDes has a vision to encourage the improvement of the village economy through its business.

(*posyandu*), and alert car (*mobil siaga*). In addition, West Java Province also provides Rp130 million annually to 5,319 villages in West Java as infrastructure assistance and allocates Rp150 billions of Regional Government Budget (*APBD*) for the Village Community Empowerment Service of West Java Province (Head of Sub-Division for Planning and Reporting of DPM-Desa, West Java Province, private communication, 20 Juli 2020).

However, the number of programs launched by the West Java Provincial Government has not been able to move the village to revive its economy. Out of 5,312 villages in West Java, only 69.5% or 3,695 have BUMDes, 14.1% or 749 villages do not have BUMDes and out of 3,695 of existing BUMDes, 20% are not running (Jubaedah, 2020). Of the total number of villages in West Java Province, namely 5,319 villages, 73% of villages already have BUMDes, while the rest do not yet have BUMDes. Of all the BUMDes, there are still 13% that are inactive (West Java Provincial DPM, 2020). Even the active BUMDes do not contribute significantly to PADes<sup>2</sup>, only 33% of BUMDes contribute to PADes (West Java Provincial DPM, 2020).

Based on BUMDes classification in West Java Province, the majority of BUMDes, which is 96 percent, are included in the BUMDes ‘pilot’ category. There are only a few BUMDes that are in the ‘growing’ category. For the ‘mature’

category, there is only one BUMDes, namely the BUMDes Niagara in Wangisaraga Village, Majalaya District, Bandung Regency. So far, there is no BUMDes in West Java Province that are classified in the ‘advanced’ and ‘big’ category. As an illustration, the following is the grouping of BUMDes.

**Table 1.** BUMDes Classification

Classification	Turn over/ Year (Rp)	No. of employees (person)	PADes contribution (Rp)	Social Assistance (Rp)
Pilot ( <i>rintisan</i> )	0-360m	0-30	0-30m	0-30m
Growing ( <i>berkembang</i> )	361m-4.8bn	30-100	31-400m	30-40m
Mature ( <i>matang</i> )	4.8-12bn	100-200	401m-1.2m	40-120m
Advanced ( <i>maju</i> )	12-60bn	200-400	1,2-6bn	120-600m
Big ( <i>besar</i> )	> 60b	>400	> 6bn	>60m

Source: (Suryanto, 2018)

BUMDes Niagara was founded in 2012 and passed by Village Regulation No. 05/2013. This BUMDes has a turnover of Rp11,286,500,699 and has contributed to PADes of Rp566,687,300 annually. This BUMDes is the only BUMDes that is classified in the ‘mature’ category in West Java Province (West Java Provincial DPM, 2020). This is an irony in the midst of the many programs provided by the government, both at the national, provincial, or district/city levels as previously mentioned.

authority of the Village (Law No.6/2014 on Villages)

<sup>2</sup> Village Original Income (PADes) is an income which comes from the authority of the Village based on the rights of origin and the local scale

Several previous studies have also focused on BUMDes or similar models of social enterprise (Wronka, 2013), who examines the growth of social enterprises in the Silesia region, Poland. Wronka succeeded in obtaining ten variables that contribute to the success of a social enterprise, including: strong leadership, motivation and commitment from employees, a supportive legal/regulatory environment, an attractive and clear innovation concept, management expertise, personal qualities of frontline employees, effective collaboration with the public sector, social capital, local community involvement, and maintaining and distributing accurate financial records. Some qualitative studies also seek to see how the management and supporting and inhibiting factors of BUMDes at the village level, such as research of Ihsan (2018), Ramadana et al., (2010). However, the two studies did not carry out an analysis to rank the factors that had the most influence.

This paper has novelty in terms of the focus of the study. The research was conducted to study BUMDes that were already 'mature', but has big potential to be 'advanced' and 'big' BUMDes, to see their causes and opportunities so that they could increase their status. Thus, it is hoped that West Java Province will have BUMDes with 'advanced' and 'big' status so that they can become a model for other BUMDes. In addition, in term of data analysis methods, in

contrast to most other qualitative studies, this study uses the Interpretive Structural Modeling method which seeks to see the relationship between elements and the degree of urgency so that they can be handled better.

Thus, this paper aims to determine the management of the Niagara BUMDes in Bandung Regency. Furthermore, this paper also seeks to identify and analyze the most influential actors, supporting and inhibiting factors, and changes that are expected to improve the management of BUMDes Niagara in Bandung Regency. Finally, this paper also seeks to provide suggestions for improving the management of the Niagara BUMDes in Bandung Regency.

## METHODS

This research is a qualitative research with an inductive approach. To find out the existing conditions of BUMDes Niagara management, interviews were conducted with five selected key informants at the PMD Bandung Regency Office, village officials, BUMDes managers, and the surrounding community.<sup>3</sup> Apart from that, secondary data was also collected consisting of village monograph data, Memorandum of Association/Articles of Association (AD/ART) of BUMDes, BUMDes routine reports, and Susenas data. Meanwhile, to determine the most influential actors, supporting and inhibiting factors, and expected changes to improve BUMDes management, in-depth interviews were carried out at the

village/BUMDes level and distribution of Interpretive Structural Modeling (ISM) questionnaires.

The ISM method is a software-based analysis method that is useful to identify the relationship between ideas and fixed structures on complex issues (Yusuf, 2020). Initially, the method introduced by John N. Warfield in 1973. This method is a descriptive modeling technique which is a structuring tool for a direct relationship (Sianipar, 2012). It is called interpretive because the elements used as input for analysis are obtained from interviews with experts, group discussions, or through literature reviews (Chandramowli, 2011). This paper use the SM-PROFESSIONAL 2.0 software

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<sup>3</sup> The selected key informants are Aning Suci Ningsih (Head of Village Community Economic Empowerment of Bandung Regency), Neneng

Santiani (Director of BUMDes Niagara), Saepul Hidayat (Secretary of BUMDes Niagara), and Iis Nina Kartina (Secretary of Wangisagara Village)

## RESULT AND DISCUSSION

### A. Management of BUMDes Niagara, Wangisagara Village, Bandung Regency

BUMDes Niagara is a BUMDes in Wangisagara Village, Majalaya District, Bandung Regency. Geographically, the north is bordered by Padamulya Village, Majalaya District, the east is bordered by Karya Laksana Village, Ibun District, the south by Nagrak Village, Paseh District and to the west it is bordered by Neglasari Village, Majalaya District. The area of this village is 195 Ha. This village has a population of 14,455 people. The distance from the village to the sub-district capital is 4 km and takes 30 minutes, to the district capital as far as 31 km with a travel time of 2.5 hours and the provincial capital is 34 km (Wangisagara Village, 2020).

The history of the establishment of BUMDes Niagara in this village began in 1999. On that year, Wangisagara Village received a grant from the Disadvantaged Village Infrastructure Development Program (P3DT) of Rp150,000,000. At that time, the village government headed by Mr. Darya and community leaders took the initiative to build a village market from this aid. In 1999 a village market was built on carik land located at RT 02 RW 07. The first construction was built 3 booths consisting of 48 stalls with a size of 3x4 meters. In 2000, it was continued with the establishment of three additional

booths totaling 76 stalls measuring 2.5m x 3m. Apart from permanent stalls, there are also 45 street stalls occupying empty land between the existing stalls. This village market also operated in 2000. In its early years, the market was operated by four employees, consist of: head of market, head of administration section, head of retribution section, and head of kiosk marketing section (Wangisagara Village, 2020).

The formation of BUMDes Niagara started from Bandung Regency Regional Regulation Number 13 of 2000 concerning Village Income and Wealth Sources. Article 2 The regulation states that one of the sources of village income is the village's original income, one of which comes from village assets. Village assets consist of village treasury lands, village markets, BUMdes, village barns, public baths and tourist objects managed by the village, village buildings, village forests, fishing grounds in rivers, village roads and other village property. Based on this regional regulation, at the initiative of the Wangisagara Village government and the Village Consultative Body (BPD), in 2002 the Wangisagara Village Regulation Number 6 of 2002 concerning the formation of Village-Owned Enterprises (BUMDes) was issued. Since then, the management of the village market has automatically been under the Niagara BUMDes. The following is a table of business in the village market sector at the Niagara BUMDes:

**Table 2.** Village Market Business at the Niagara BUMDes

Land Ownership Status Village	Manager	Large				Potential Amount				Number of visitors	
		Building (m <sup>2</sup> )	Land (m <sup>2</sup> )	Los	Stall	Sidewalk vendors	Street vendor	Parking	Restroom	Active	Not active
Carik village	BUMDes Niagara	2,800	3,290	8	138	66	65	3	4	248	-

Source: (BUMDes Niagara, 2020)

Based on the table above, it can be seen that the number of assets managed by the Niagara BUMDes has increased very rapidly when compared to the market assets managed for the first time in 1999, namely: 3 stalls and 48 kiosks.

In 2016, the BUMDes business sector increased. The enterprise started savings and loan business. This business was legalized in notarial deed number AHU-0076327.AH.014.07 of 2016. Its business activities include facilitating and accommodating people who want to save their money in BUMDesa and make loans. There are 2 types of credit provided by savings and loan businesses, namely working capital loans and consumptive loans. Capital

credit is intended for productive activities such as trade credit, agricultural credit, livestock credit, Niagara Market trade credit, transportation service credit, foreign trade credit. Consumptive loans are intended for education, health or other household needs. For savings, consists of 3 types of savings, namely principal savings, namely principal savings that are paid for each credit realization of 2%, voluntary savings, namely savings that can be made by customers at any time and at any time during working hours and special time deposits, namely deposits in BUMDes Niagara with a saving period of no more than one year and at least six months. The following is the development of the savings and loan business at BUMDes Niagara:

**Table 3.** Development of Savings and Loans Business at BUMDes Niagara

	Year					
	2015	2016	2017	2018	2019	2020
Development of Savings	3,578,128	21,778,894	96,577,978	169,352,235	278,447,012	260,540,604
Development Credit	96,806.300	326,798,60	433,371,700	805,233,600	1,056,788,400	1,191,238,200
Number of members (persons)	23	87	127	196	253	291

Source: (BUMDes Niagara, 2020)



The table 3 indicates the development of savings and loans business that has increased quite rapidly in six years. All experienced an increase except for the amount of deposits from 2019 and 2020.

One year later, the enterprise expanded business in trading of alkaline water purification machines "Kangen Water" and the production of home industry products such as shoes and bags. For the drinking water purification machine business, BUMDes collaborates with PT Energic Indonesia. The collaboration with this company began in 2017. In the cooperation agreement, BUMDes Niagara only acts as distributor of Kangen Water machines for the Wangisagara Village area and its surroundings. However, this cooperation is limited to the purchase of water purification machines by BUMDes to distributors and BUMDes profits are only obtained from commissions on machine sales. This cooperation is not supported by a written cooperation agreement by both parties.

In addition, there is cooperation with the MSME group of sandals and bag craftsmen. Cooperation in this field is also limited to a simple and unwritten agreement in the form of providing capital to craftsmen to produce shoes and BUMDes rights to own a brand.

Since its establishment, the Niagara BUMDes profit and contribution to PADes have fluctuated. From 2008 to

2020 the total net profit and contribution to PADes always increased every year. In 2020, the net profit of BUMDes Niagara has reached Rp. 1,825,747,926 from a total turnover of Rp. 11,711,633,351 with a contribution to PADes of Rp. 785,071,608.

#### **B. The Most Influential Actors, Supporting and Inhibiting Factors, and The Changes Expected to Improve The Management of Bumdes Niagara in Bandung Regency**

Identification and determination of the institutions/ actors involved, constraints/ problems, supporting factors, and activities needed for changes related to the management of the Niagara BUMDes are carried out through a brainstorming process with parties designated as respondents to gather ideas. These parties are stakeholders who are related and have a direct relationship with BUMDes, starting from the Head of the Village Community Economic Empowerment Division DPMD Bandung Regency, Chairman of BUMDes Niagara, Secretary of BUMDes Niagara, and Secretary of Wangisagara Village. Based on the results of the brainstorming with these respondents, the elements of influencing actors, supporting and inhibiting factors were obtained, and the changes expected to improve the management of BUMDes Niagara in Bandung Regency, as shown in Table 3.

**Table 3.** Details of Elements and Sub Elements of Institutions/Actors Involved, Supporting Factors, Inhibiting Factors, and Activities Needed to Improve Management of BUMDes Niagara

No.	Element	Sub Element
1.	Institutions / actors involved in the management of BUMDes	<ol style="list-style-type: none"> <li>1. Village head</li> <li>2. BUMDes Manager</li> <li>3. Public figure</li> <li>4. Religious / customary figures</li> <li>5. Youth organization</li> <li>6. BPD</li> <li>7. Private companies</li> <li>8. Banking</li> <li>9. Provincial PMD Office</li> <li>10. District PMD Office</li> <li>11. PDDT Village Ministry</li> <li>12. Village Assistant</li> </ol>
2.	Supporting Factors in the management of BUMDes	<ol style="list-style-type: none"> <li>1. Village potential</li> <li>2. Product Marketing / Market access</li> <li>3. Sociology of village community culture</li> <li>4. Village head and BUMDes management policies</li> <li>5. The commitment of the village head in advancing the village economy</li> <li>6. Support from BPD, LPM and the community</li> <li>7. Qualified human resources</li> <li>8. Regulations that accommodate BUMDes to be more advanced</li> </ol>
3.	Inhibiting factors in the management of BUMDes	<ol style="list-style-type: none"> <li>1. Village Head Politics</li> <li>2. Human Resources</li> <li>3. Technology</li> <li>4. Lack of transparency in the management of BUMDes</li> <li>5. Differences in perceptions between BUMDes managers and village heads</li> <li>6. Lack of information on cooperation with other parties</li> </ol>

No.	Element	Sub Element
		<ol style="list-style-type: none"> <li>7. Lack of knowledge, skills in marketing products and networks</li> <li>8. Lack of support from the city / district government in developing BUMDes human resources</li> <li>9. Lack of knowledge and understanding of the community about BUMDes</li> <li>10. Limited capital</li> </ol>
4.	Changes that are expected to improve the management of BUMDes	<ol style="list-style-type: none"> <li>1. Socialization of the functions, benefits, and importance of BUMDes</li> <li>2. Cooperation with companies / investors</li> <li>3. BUMDes management recruitment that is transparent, independent and open to the public</li> <li>4. Training for BUMDes managers whether it is training for financial managers, marketing, entrepreneurship, business management, leadership and others</li> <li>5. Business promotion</li> <li>6. Strengthening guidance by government agencies</li> <li>7. Strengthening regulations and synchronizing regulations related to BUMDes</li> <li>8. Identification of village potential</li> <li>9. Facilitating internet network development</li> <li>10. Creating a partnership business network</li> <li>11. Facilitating conflict handling by the district government</li> <li>12. Making SOPs and policies related to the sustainability and progress of BUMDes</li> </ol>

Source: compiled by the author, 2021

**1. Element of institutions / actors involved in the management of the Niagara BUMDes**

Symbols V, A, X, O in the SSIM matrix are translated into several notations V (1,0), A (0,1), X (1,1) and O (0,0) so that the initial reachability matrix is formed. Then, this matrix is checked for its transitivity rule to form a final Reachability matrix as shown in Table 4 Then the binary reachability matrix shows the driving power and dependence power for each sub-element.

**Table 4.** Final Reachability Matrix for Institutions/Actors involved in Management of the BUMDes Niagara

	1	2	3	4	5	6	7	8	9	10	11	12	DP	R
1	1	1	1	1	1	1	1	1	1	1	1	1	12	1
2	1	1	1	1	1	1	1	1	1	1	1	1	12	1
3	0	0	1	1	1	0	1	1	1	1	1	1	9	3
4	0	0	0	1	1	0	1	1	1	1	1	1	8	4
5	0	0	0	0	1	0	1	0	0	0	0	1	3	7
6	0	0	1	1	1	1	1	1	1	1	1	1	10	2
7	0	0	0	0	0	0	1	0	0	0	0	1	2	8
8	0	0	0	0	1	0	1	1	1	1	1	1	7	5
9	0	0	1	1	1	1	1	1	1	0	0	1	8	4
10	0	0	1	1	1	1	1	1	1	1	1	1	10	2
11	0	0	1	1	1	1	1	1	0	1	1	1	9	3
12	0	0	0	0	1	1	1	1	1	0	0	1	6	6
D	2	2	7	8	11	7	12	10	10	7	8	12		
L	6	6	5	4	2	5	1	3	3	5	4	1		

Respondents: Aning Suci Ningsih, Neneng Santiani, Saepul Hidayat, Iis Nina Kartina  
 DP: Driven Power  
 D: Dependence  
 L: Level (Hierarchy)  
 R: Ranking

After forming the final reachability matrix (final RM), a MICMAC analysis is then compiled to determine the position of each sub-element in the quadrant. The results of the MICMAC analysis are illustrated in Figure 1 below.

**Figure 1.** MICMAC Analysis Results for Influential Institutional Elements / Actors in Management of the BUMDes Niagara

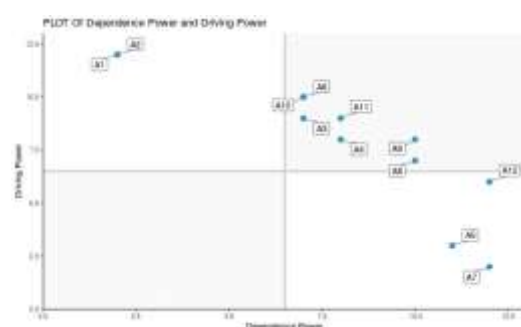


Figure 1 above shows the position distribution of each sub-element in the four quadrants. Quadrant I (autonomous) has a weak DP and D is also weak. In general, the sub elements in this area have no effect or at least have little influence with other sub elements. In this context, no sub elements are in quadrant I.

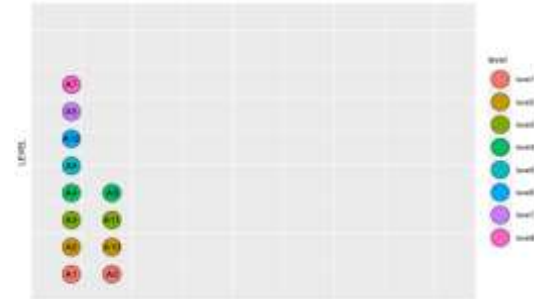
Furthermore, quadrant II (dependent) shows a weak DP but a strong D. Every sub element in this area is a sub element that depends on other sub elements. In this context, private companies, village assistants, and youth organizations are in this area. The handling of these three institutions / actors is carried out after the handling of the other sub-elements has been carried out.

Meanwhile, the sub-elements in quadrant III (linkage) have strong DP and D values which are also strong. This indicates that the relationship between the sub-elements in this area is very high so that an action on one of the sub-elements will have an effect on the other sub-elements. For that, handling of the sub elements in this area must be careful. The majority of the sub-elements are in this quadrant, namely: community leaders, religious/customary figures, BPD, banking, provincial PMD offices, district PMD offices, and PDTT village ministries.

Meanwhile, quadrant IV (independent) has a strong DP value but a weak D value. This sub-element has a weak relationship with other sub-elements but is very crucial for the success of BUMDes management. In this context, Village Heads and BUMDes Managers are in this quadrant.

After the MICMAC analysis, a Structural Model diagram is drawn up for the institutions/actors involved. In the diagram below, the institutions/actors are arranged starting from the actors with the most influence on each other at the top to the institutions / actors that are not very significant in influencing at the bottom.

**Figure 2.** Structure Model Diagram of Influential Institution / Actor Elements in Management of BUMDes Niagara



Based on Figure 2, it can be seen that at level-1 there is a Village Head and BUMDes Manager. At level-2 are the BPD and the District PMD Office. Then, at level-3 are Community Figures and the Kemendes PDTT. Meanwhile, religious/customary leaders and the provincial People and Village Empowerment Office are at level-4. Then the next four levels in a row, namely: Banking, Village Facilitators, Youth Organizations and private companies. Based on this figure, the key actors who are influential in the management of the Niagara BUMDes are *the Village Head and BUMDes Manager*.

## 2. Inhibiting Factors in the Management of BUMDes Niagara

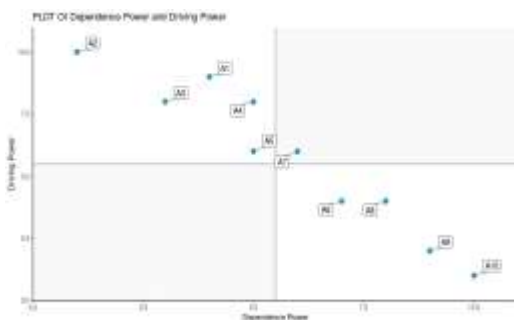
The following is the final RM matrix of the inhibiting factors in the management of the BUMDes Niagara.

**Table 5.** Final Constraints / Problems Reachability Matrix management of the Niagara BUMDes

	1	2	3	4	5	6	7	8	9	10	DP	R
1	1	0	1	1	1	1	1	1	1	1	9	2
2	1	1	1	1	1	1	1	1	1	1	10	1
3	0	0	1	1	1	1	1	1	1	1	8	3
4	1	0	0	1	1	1	1	1	1	1	8	3
5	0	0	0	0	1	1	1	1	1	1	6	4
6	0	0	0	0	0	1	0	1	1	1	4	5
7	1	0	0	0	0	1	1	1	1	1	6	4
8	0	0	0	1	0	0	0	1	1	1	4	5
9	0	0	0	0	0	0	0	0	1	1	2	6
10	0	0	0	0	0	0	0	0	0	1	1	7
D	4	1	3	5	5	7	6	8	9	10		
L	7	9	8	6	6	4	5	3	2	1		

Meanwhile, the results of the MICMAC analysis are illustrated in Figure 3 below.

**Figure 3.** MICMAC Analysis Results for Elements of Constraints / Problems in Management of the Niagara BUMDes

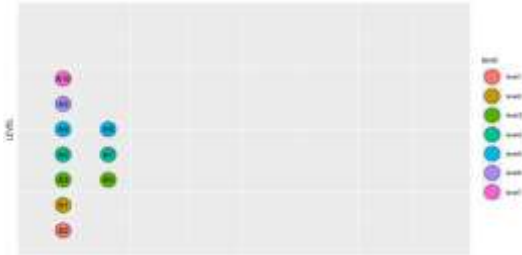


Based on the Figure 3 above, there are five constraint sub-elements that

are in quadrant IV, meaning that the five sub-elements are the most dominant problems and must be resolved first before solving the other sub-elements. The five obstacles are human resources, technology, village head politics, lack of transparency in the management of BUMDes, and different perceptions between BUMDes managers and village heads. Meanwhile, in quadrant III there is one constraint sub-element, namely a lack of knowledge, skills in marketing products and networks. Handling these constraints is also very important but must be careful because it will affect other sub-elements of the constraints. Then in quadrant II there are four sub-elements, namely: Lack of information on cooperation with other parties, Support from city / district governments in developing BUMDes human resources, Lack of knowledge and understanding of the community about BUMDes, and limited capital. Handling these sub elements must also be done carefully because they affect other sub elements but are handled after the other sub elements are handled. Meanwhile, there are no sub elements that are in quadrant I.

The following is a Structural Model Diagram of the Constraints / Problems in the management of the Niagara BUMDes, as follows.

**Figure 4.** Structural Model Diagram of Constraints / Problems Management of the Niagara BUMDes



Based on Figure 4, it can be seen that at level-1 there are sub-elements of human resources. At level 2 is the politics of the village head. Then, at level 3 is technology and lack of transparency in the management of BUMDes. At level-4 is the difference of perceptions between BUMDes managers and village heads, and Lack of knowledge, skills in marketing products and networks. Meanwhile, the constraints of lack of information on cooperation with other parties, and support from city/ district local governments in BUMDes HR development are at the level -5. Then the next two levels are successive, namely: lack of knowledge and understanding of the community about BUMDes, and capital constraints. Based on this figure, the key constraints that affect the management of BUMDes Niagara are the problems of human resources and the politics of the village head.

### 3. Supporting Factors in Management of BUMDes Niagara

The following is the final RM matrix of Supporting Factors in Management of Niagara BUMDes.

**Table 6.** Supporting Factors Final Reachability Matrix Management of the Niagara BUMDes

	1	2	3	4	5	6	7	8	DP	R
1	1	1	1	1	0	1	1	1	7	1
2	0	1	0	0	0	0	1	1	3	5
3	0	1	1	0	0	1	1	1	5	3
4	0	1	1	1	0	1	1	1	6	2
5	1	1	1	1	1	0	1	1	7	1
6	0	1	0	0	1	1	1	1	5	3
7	1	1	1	1	0	1	1	1	7	1
8	1	1	1	0	0	0	0	1	4	4
D	4	8	6	4	2	5	7	8		
L	5	1	3	5	6	4	2	1		

Respondents: Aning Suci Ningsih, Neneng Santiani, Saepul Hidayat, Iis Nina Kartina

DP: Driven Power

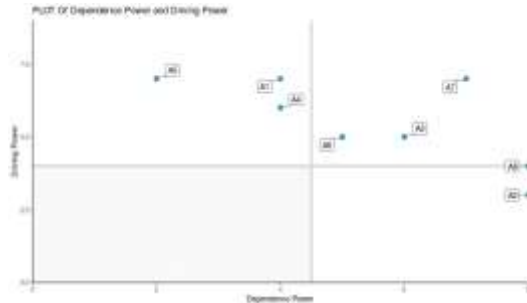
D: Dependence

L: Level (Hierarchy)

R: Ranking

The results of the MICMAC analysis are illustrated in Figure 5 below.

**Figure 5.** MICMAC Analysis Results for Supporting Factor Elements in Management of Niagara BUMDes



Based on Figure 5, it can be seen that the sub-elements of the village head's commitment to advancing the village economy, village potential, and policies of village heads and BUMDes managers are the strongest supporting factors in BUMDes management because they are in quadrant IV. Then in quadrant III there are three sub elements, namely: Support from BPD, LPM and the community, sociology of village culture, and qualified human resources. Meanwhile, in quadrant II there are two sub-elements, namely Product Marketing/Market Access and Regulations that accommodate BUMDes to be more advanced. Although these two sub-elements are not urgent to be handled immediately, they have a high dependence on other sub-elements.

Based on this analysis, a Structural Model Diagram of the Supporting Factors in the Management of Niagara BUMDes is compiled, as follows.

**Figure 6.** Structural Model Diagram of Supporting Factors in Management of the Niagara BUMDes



Based on Figure 6, it can be seen that at level-1 there are sub-elements of village potential, commitment of the village head in advancing the village economy, and qualified human resources. At level-2 is the policy of the village head and BUMDes manager. Then, at level-3 is the sociological culture of the village community and the sub-elements of support from the BPD, LPM and the community. At level-4 is a regulation that accommodates BUMDes to be more advanced. Meanwhile, Product Marketing / Market access is at level-5. Based on this figure, the key supporting factors that influence the management of BUMDes Niagara are the village potential, the commitment of the village head in advancing the village economy, and qualified human resources.

#### 4. Changes expected for Changes related to Management of Niagara BUMDes

The following is the final RM matrix of the expected Change in Management of the Niagara BUMDes.

**Table 7.** Final Reachability Matrix Expected changes for Management of BUMDes Niagara

	1	2	3	4	5	6	7	8	9	10	11	12	13	DP	R
1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	7
2	1	1	1	0	1	1	1	1	1	1	1	1	1	12	2
3	1	0	1	0	0	0	0	0	1	1	1	1	1	7	6
4	1	1	1	1	1	1	1	1	1	1	1	1	1	13	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	13	1
6	1	0	1	0	0	1	1	0	1	0	1	1	1	8	5
7	1	1	1	0	0	1	1	0	1	1	1	1	1	10	3
8	1	1	1	1	1	1	1	1	1	1	1	1	1	13	1
9	1	1	0	0	0	1	1	0	1	1	1	1	1	9	4
10	1	1	1	1	1	1	1	1	1	1	1	1	1	13	1
11	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
12	1	1	1	0	0	1	1	0	0	0	1	1	0	7	6
13	1	1	1	0	0	1	1	0	1	0	1	1	1	9	4
D	12	9	10	4	5	10	10	5	10	8	12	11	10		
L	1	4	3	7	6	3	3	6	3	5	1	2	3		

Respondents: Aning Suci Ningsih, Neneng Santiani, Saepul Hidayat, Iis Nina Kartina

DP: Driven Power

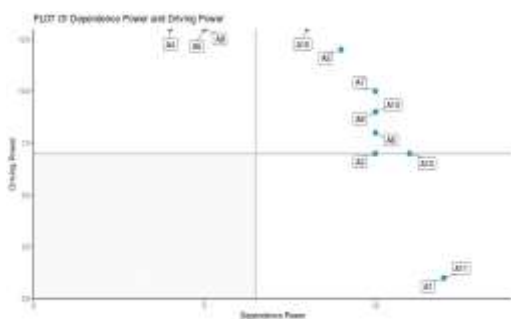
D: Dependence

L: Level (Hierarchy)

R: Ranking

The results of the MICMAC analysis are illustrated in Figure 7 below.

**Figure 7.** MICMAC Analysis Results for Elements of Expected Change related to the Management of the Niagara BUMDes



From Figure 7, it can be seen that the most dominant sub-elements are in quadrant IV, namely training for BUMDes managers, be it financial management training, marketing, entrepreneurship, business management, leadership and others, business promotion, and village potential identification. These sub elements must take precedence. Meanwhile, the majority of the sub-elements, namely the eight required activities, are in quadrant III. The character of the sub-elements in this quadrant is unstable, so it needs to be careful in handling it. Whereas in quadrant II there are two sub-elements that have high dependence but are not prioritized in their handling, namely the sub-elements of socialization of functions, benefits, the importance of BUMDes, and facilitation of conflict management by the district government.

Based on the diagram, a Structural Model Diagram of Activities Required for Change related to Management of BUMDes Niagara is prepared, as follows.

**Figure 8.** Model diagram of the structure of the expected changes related to the Management of the Niagara BUMDes





Based on Figure 8, it appears that the sub-elements that are at level-1 are training for BUMDes managers, be it training for financial managers, marketing, entrepreneurship, business management, leadership and others, business promotion, identification of village potential, and making partnership business networks. Then at level-2 is cooperation with companies / investors, at level-3 is strengthening of regulations and synchronization of regulations related to BUMDes, then at level-4 is facilitation of internet network development and making business licenses. Meanwhile at level-5 is strengthening guidance by government agencies. At level 6 is the Recruitment of BUMDes management that is transparent, independent and open to the public, and the making of SOPs and policies related to the sustainability and progress of BUMDes. Meanwhile, the two sub-elements that are at the last level are the socialization of functions, benefits, the importance of the existence of BUMDes, and facilitation of conflict management by the district government. Based on this figure, the activities needed that are influential in managing BUMDes Niagara are training for BUMDes managers, be it training for financial managers, marketing, entrepreneurship, business management, leadership and others, business promotion, identification of village potential, and creation of partnership business networks.

### C. Discussion on the Results of the ISM Analysis

Based on the results of the analysis above, it can be understood that the existing conditions of management of the Niagara BUMDes have shown growth both in terms of business and BUMDes income. However, if it is seen from the results of the analysis of the dominant actors in the management of BUMDes, it is very limited. The most dominant actors are village heads and BUMDes managers. This analysis is also in line with the results of interviews and observations, it is known that the performance of BUMDes is very dependent on the leadership figures of the village head and BUMDes managers, especially the director. This is not a problem for now because there is good leadership between the village and the BUMDes. However, it needs to be anticipated when there is a change in management where there is often a mismatch between the BUMDes manager and the village head resulting in difficulty making decisions. Another actor, such as village assistants (*pendamping desa*), private sector, the Ministry of Villages, Development of Disadvantaged Areas, and Transmigration and the People, and Villages Empowerment Office of West Java Province are not very influential. This indicates that the government program has not been significantly felt by BUMDes.

Furthermore, it is seen from the inhibiting factors, the results of the ISM analysis show that the human resource factor is the factor that most needs to be

considered, namely the human resources and politics of the village head. From interviews and observations it was also found that there were no special requirements for recruitment of employees. Recruitment is based on whoever signs up and is subjectively deemed able to work. It is not uncommon for employees to be hired as a result of recommendations from the village head or other officials. The village head's influence is also quite large in determining the direction of the Niagara BUMDes.

Furthermore, the third is the ISM analysis of the supporting factors for BUMDes management. The results show that Village potential and the commitment of the village head in advancing the village economy are determining factors. Wangisagara Village has considerable potential and has been exploited such as a strategic location for village markets, community banking needs are benefited by establishing savings and loan businesses, community needs for healthy drinking water are met by the sale of water purification machines, and a potential market and a large number of craftsmen. used as a marketer for these products.

Finally, the results of the related ISM analysis The expected changes in the management of BUMDes Niagara shows four things, namely: Training for BUMDes managers, be it training for financial managers, marketing, entrepreneurship, business management, leadership and others,

business promotion, identification of village potential, and creation of partnership business networks. The results of the ISM analysis are also in line with the results of the ISM analysis regarding the actors who have been influencing the BUMDes, namely the strong role of village heads and BUMDes managers. Meanwhile, other actors such as village assistants, district / city governments, provincial governments, and ministries, including banking institutions and companies are not very influential. This has resulted in the minimal intervention of these actors, one of which is in developing human resources, mentoring business promotion, identifying village potentials, and networking of partnerships. Based on interviews and observations, it was also found that the marketing network for BUMDes products and the community was mostly still on a local scale.

## CONCLUSION

Based on the description above, it can be concluded that the management of the Niagara BUMDes is not very effective. Although it is the only BUMDes that is included in the 'mature' category in West Java Province, there are still many notes for improvement, as seen from the aspect of the actors involved which are still elitist in the village head and BUMDes manager. Meanwhile, the role of the upper level village government and the private sector is not very significant. Then in the inhibiting factor, human resource problems are the most influential. On

the other side, on the supporting factors, the village potential and the commitment of the village head in advancing the village economy are decisive factors. This condition correlates with the results of the analysis that various activities are still needed to improve the quality of human resources and other assistance such as business promotion, identification of business potential, and partnership networks. The government needs to pay attention to some of the above aspects by providing guidance and facilitation to BUMDes Niagara.

#### ACKNOWLEDGMENT

The author would like to thank the informants from the Community and Village Empowerment Offices of Bandung Regency, village apparatus of Wangisagara, staffs of BUMDes Niagara, villagers of Wangisagara, and all those who contribute in the study.

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