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### **Rural Development in The Post-Covid-19 Outbreak; An Empirical Evidence of Indonesian Village-Owned Enterprises (VOE) Stakeholder**

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#### **Abstract**

This study aims to identify stakeholder roles and strategic factors in rural area development through VOE in the post-COVID-19 pandemic era. Matrix of Alliances and Conflicts: Tactics, Objectives, and Recommendations (MACTOR) analysis, are used to answer the research questions. The data was collected using questionnaires and interviews with VOE stakeholders. The empirical findings reveal some factors determining the VOE's achievements. First, the finding evidenced that the Village Consultative Board (BPD), stakeholders that are the most important factor determining the VOE development, was the most important actor in VOE achievement. Second, the study finds also that during the COVID-19 outbreaks the performance of VOE was decreased, due to the weak coordination among stakeholders. Third, VOE development was limited during the COVID-19 pandemic era. This study's uniqueness is expected to be implemented in different areas with identical characteristics since the COVID-19 pandemic is equivalent to economic pressure or socioeconomic emergency. A new approach to stakeholders' involvement to analyze the VOE achievement is provided in this study.

#### **Keywords**

VOE, Actor, Factor, COVID-19 Pandemic

## **Introduction**

Indonesia is a developing country with a broad area of 71,074 villages. The rural area still needs to be developed. The concept of rural development is an action to reduce the gap between rural areas and urban areas caused by traditional production factors and low production capacity (Abreu & Mesias, 2020). The Indonesian government has developed several programs to ease this problem. One of the programs is the establishment of VOE. This establishment aims to develop and mobilize the rural economic sector by optimizing local potential (Kania et al., 2021). VOE is a model of rural development that involves community participation, with 51% of the business capital being owned by the village government through direct participation of separated village wealth and the remaining 49% by the surrounding community (Ridwan, 2014).

Nevertheless, in 2020, from the total number of villages, there are only 51,134 villages were recorded to have established the VOE (Firman, 2021). It means that 28%, or approximately 19,940 villages, have not yet established VOE. This condition appears due to various problems, such as limited human resources, types of business, and community knowledge, causing low community participation (Gunanto, 2016). The potential of the VOE establishment faced a critical challenge due to the Covid-19 outbreaks.

In December 2019, WHO officially reported that the first coronavirus case was discovered in China. This virus has spread rapidly around the world, including Indonesia. The Covid-19 outbreak, a global pandemic, has caused Indonesia's economic growth to drop by -2.1% in 2020 (Arnani, 2020). This condition, then put Indonesia's economic rate to drop as a lower and middle-income country. In addition, the pandemic also has disrupted many sectors, such as business activities, supply chains, low production capacity, and unemployment improvement, which have led to a decline in people's incomes (BAPPENAS, 2020).

The Covid-19 pandemic is also one of the barriers faced in developing VOE in Indonesia. Therefore, the Government Work Plan (RKP) in 2021 is directed to accelerate the development and economic recovery, including VOE development, caused by the Covid-19 outbreak (Muhyiddin & Nugroho, 2021). The importance of optimizing the development of VOE will improve business success and the community's economy, which is part of the strategy to restore the economy through people's welfare improvement.

Theoretically, there are several studies discussed on the issues of VOE, especially focused on identifying success factors, such as the need for an incubation strategy or human resource mentoring in the village (Han, 2020), increasing integration of access to information, infrastructure, market relations, business, and access to capital (Ganguly et al., 2020; Han, 2020), cooperating with the location, institutions, materials, and local identity (Olmedo et al., 2021; Steiner et al., 2021), and product innovation. Apart from the success factors, several studies have also identified actors that play a role in the success of VOE,

such as city district governments as centers of mobilization for other public actors for rural development restructuring programs and persuasion (Chen, 2019), programs that are supervised by the government, controlled by shareholders' shares, and regulated by members (Yu, 2013). Aside from that, there is a great potential for excessive control and interference from several leaders (Rwamigabo, 2017), and a low level of coherence among villagers in rural development efforts is also found (De Rosa & McElwee, 2015).

Although there are some previous studies on the VOE issues, research on the barriers and challenges of VOE development during and after the Covid-19 pandemic is still limited. Therefore, this research aims to fill this gap by focusing on the actors involved and their respective roles in developing VOE businesses. The previous studies focused more on factors that determine VOE success development, while the identification of stakeholders' participation was investigated separately. Today, only a few studies analyze the actors and success factors simultaneously. Therefore, this study's objectives consist of several issues that need to be addressed. First, to identify the role of each stakeholder in VOE development in the post-Covid-19 pandemic. Second, investigate the actors' convergence (dependence/influence) and divergence (potential conflict). Third, to measure the determinants of the success of VOE, which are presented in a priority scale for their procurement. This research focuses on Indonesia, with the Special Region of Yogyakarta as the main sample because VOE is a program of the Indonesian government whose formation involves community aspiration and village government to develop rural areas. The Special Region of Yogyakarta is selected as the main sample because of the heterogeneity of the VOE business unit.

This research contributes both conceptually and practically. This research extends the theory to research that focuses on rural development with various variables that drive the success of rural development. In terms of methodology, the contribution of this research can be seen from the MACTOR method implementation in analyzing the actors, identified as research objects through their role in mobilizing village resources so that they affect improved yield, either directly or indirectly. Finally, this research is beneficial for practitioners in the development of VOE to support government programs through the VOE sequence and stakeholders.

## **Literature Review**

### **Rural Development and VOE**

Economic problems and rural development are considered and studied from several disciplines. Specifically, the issues are found in regional economic and rural studies (Tandir, 2016). Bryden's theory explains the perspective on a village's competitive advantage in immovable resources. These factors are social capital, cultural capital, environmental capital, and local wisdom (Bryden & Dawe,

1998). On the other hand, community rural development theory describes a rural development process that brings together and evolves solutions to common problems. This community comes from the village's economic, social, environmental, and cultural existence and development (Maser, 1997).

Furthermore, the modernization theory explains that internal factors in the village, such as illiteracy, agrarian structures, traditional behavior, lack of employment opportunities, low communication of information and infrastructure, are the barriers to rural development. The concept of modernization combines several societal factors that must be reduced and changed to become modern. Therefore, the rural community's development can be measured based on the increase in the living standards of the villagers and the improvement of modern infrastructure and equipment (Adeyemo & Kayode, 2020).

Flora, et al, (1991) explain three requirements for rural areas' economic development, including involvement of local organizations (local government), investment in local resources, and business activities that have to be organized locally in the concept of self-development. Self-development is an economic development activity that does not depend on the availability of large industries but rather on the business of local business actors.

In Indonesia, under national development planning number 6, the Year 2014 Law concerning villages clarified that the development of villages and rural areas aims to upgrade rural communities' welfare society quality and reduce poverty in the village. Development policies will focus on identifying potential and opportunities, directing program movements, and evaluating problems that always arise in rural areas, such as infrastructure, transportation, job opportunities, public services, and urbanization (Blair, et al, 2008).

Rural development is a multi-level, multi-factor, and multi-participant process involving people, resources, the environment, the economy, and society (Wang, et al., 2017). Thus, it can affect the type of interaction between different levels and institutions of the development system due to the level of autonomy at the local level, the administrative procedures applied, and the autonomy of local partnerships in general (Pollermann, et al, 2014)

The VOE concept is an institution or village economic structure that aims to gain profits for the village's real income, promote the village economy, and improve rural communities' welfare. Following the regulations of Law No. 6 of 2014, each village can establish a VOE organized in a spirit of kinship and cooperation by running a business in the economy and public service according to the provisions of the legislation. VOE was established based on an agreement that resulted from Village Meeting Agreement. The results from the management of VOE are provided for business development, empowerment, and assistance to poor rural communities. Service is distributed through grants, social assistance, and revolving fund activities that have been stipulated in the Village Revenue and Expenditure Budget.

In China, VOE is known as Township and Village Enterprises (TVE), whose

ownership rights are owned by villagers and controlled by the township-village government (TVG). Profits obtained from TVE's business units will be distributed to residents and TVG officials. This ownership and the profit-sharing system can be a solution to the welfare problems of villagers (Chang & Wang, 1994). Two actors are participating in the management and development of TVE's expansion in China: local townships and village leaders (H. Chen & Rozelle, 1999). These two business entities in two different countries have the same goal, namely the welfare of rural communities through their facility building efforts, managed and owned by the village. The government has only become a support system to support regulations and capital (Safa & Permadi, 2019).

### **VOE and the Roles of Rural Development Actors**

Many actors, social movements, and state apparatus are actively shaping rural development (Ploeg, 2015). Rural development is a multi-level, multi-factor, and multi-participant process, which means that the actors at the rural level are quite diverse. The multi-participant process in village development involves several actors from the government, village commissions, villagers, cooperation with village economic actors, financial institutions, and non-governmental organizations (Wang, et al., 2017). Therefore, these VOE programs need actors who understand rural development and local characteristics and have a vision of building a village economy. These actors generally have different perspectives, visions for the future, broad networks, and enthusiasm for change and rural development (Ploeg, et al, 2015).

Several actors play a role in village development, including the government, the private sector, the general public, academia, and the media. Actors in rural development are usually divided into two groups, namely institutional actors and private actors. Institutional actors consist of government institutions and community associations that focus on rural development movements. In comparison, private actors consist of social entrepreneurs and community leaders (Esparcia, et al, 2015). The government acts as a regulator, monitor, and assessor of development and is the party implementing integration between programs at various levels, both at the regional and central levels.

The institutional development of VOE must be supervised under several village community groups that focus on developing VOE and government institutions from the village government to the provincial level. The community plays a role through active participation by providing input or ideas about the needs needed by the community. This can be done by forming a community that aims to synergize existing programs with existing programs at the government level (Dwinugraha, 2017).

Meanwhile, the role of individual actors includes that of private sector actors. These actors play a role in helping the government provide stimulus through innovations created by the private sector. The innovation was then adopted and used widely. The private sector also contributes to providing

stimulus, both material and non-material. What can be done by individual actors is related to the provision of capital and cooperation or collaboration between government programs and those proposed by the private sector or individual actors so that broad benefits can be obtained. In addition, the media also plays a role in supporting the development of VOE by socializing and promoting the program to the broader community (Kirana, et al, 2020).

**VOE in the Special Region of Yogyakarta and Its Development Challenges during the Covid-19 Pandemic**

The Covid-19 pandemic has caused severe problems for the global economy’s health and disrupted business continuity in various business sectors, including VOE (Pratiwi & Novianty, 2020). In Indonesia, the regulation has been implemented to suppress the spread of the virus through social restrictions. However, this policy significantly impacts the economic sector (Ubi, et al, 2020). In the short and medium-term, restrictions on community movement (lockdown) bring impact on logistics problems, labor shortages, and demand, so that 80% of MSMEs and VOE close their operations (Dai et al., 2021).

The government's target of establishing a VOE in Indonesia is no exception to be impacted due to Covid-19. This condition also occurs in the Special Region of Yogyakarta. According to BPS, in 2020, 60 villages (15%) in Yogyakarta still have not established VOE. Gunung Kidul Regency has the most VOE, which is 123 units as of April 30, 2020. However, there are still 21 villages (15%) that have not established VOE. Meanwhile, in Sleman Regency, of the 86 villages, there are still 24 villages (25%) that have not yet established VOE. Similar conditions also occur in Bantul Regency, were out of a total of 75 villages, 15 (20%) of them have not yet established VOE. On the other hand, in Kulon Progo Regency, all villages have been established the VOE. This means that the number of existing VOE reaches 87 units.

**Table 1.** VOE in the Special Region of Yogyakarta

No	Regency	Districts	Villages	VOE	VOE that has not been established	VOE impacted by Covid-19
1	Kulon Progo	12	87	87	0	39
2	Bantul	17	75	60	15	5
3	Gunung Kidul	18	144	123	21	18
4	Sleman	17	86	62	24	1
		64	392	332	60	63

**Source: (KPW P3MD DIY, 2020)**

Based on the report on the performance of regional assistant consultants in 2020 in Yogyakarta, it was reported that currently there are 63 VOE affected by Covid-19. Business units that are closed include tourism, lodging, swimming pools, cafes, and restaurants. Other options for business units that can survive but have to reduce working hours are rental service units, photocopying or office

stationery, processing/production, and savings and loans. In contrast, those that can still survive are clean water treatment units and commodities trading.

## **Methods**

### **Research Design**

This study aims to identify the role of each actor in the development of VOE by using a combination of qualitative and quantitative analysis. The data will be analyzed using the MACTOR method. MACTOR was introduced by Godet (1991) to provide a better analytical method by utilizing the informational added value contained in the actor's strategy table (M. Godet, 1979; Fetoui et al., 2021).

In MACTOR analysis, actors are identified as the research object entities whose role is to mobilize existing resources to affect the results directly or indirectly through their influence on other actors. In MACTOR analysis, data is collected from a workshop or experts whose opinions can be justified (Godet, 2000). ). The first step in actor analysis is mapping the relevant and potential actors. The post-covid-19 VOE development analysis analyzed several actors, such as the Director of Advanced VOE, Youth Organizations, Village Consultative Board (BPD), Village Government, Village Local Assistants (PLD), Village Economic Empowerment Experts (TA.PED), Village Community Empowerment Service (PMD), Regional Assistance Consultants (KPW), and academics in economics.

### **Population and Sample**

Sampling is the process of selecting a few cases to investigate in detail to understand a larger group of cases. Most, but not all, empirical studies use sampling. Depending on the survey, the method used for sampling may differ. Most studies on sampling emphasize sampling in quantitative research and include both applied mathematics and quantitative examples. According to Neumann (2014), the population is an abstract idea of a large group of cases in which researchers extract samples and generalize the results of the samples. The sample consists of a small number of cases, but researchers select from a large pool and generalize to the population. Data is obtained from questionnaires and in-depth interviews with 9 VOE, and 60 Stakeholders. Therefore, it can be seen that this study uses combination techniques, which are qualitative through its sampling and quantitative through the use of MACTOR for data analysis. The qualitative data are gathered from the stakeholders.

## **Results and Discussion**

### **The Matrix of Direct and Indirect Influences (MDII)**

The MDII analysis aims to determine the extent of each actor's direct and

indirect influence on the other actors. The following are the results of the MDII test:

**Table 2.** Matrix of Direct and Indirect Influences

MDII	BUMDES	YOUTH	BPD	KADES	PLD	TA.PED	PMD	KPW	ACADEMICS	Ii
BUMDES	25	16	23	27	27	24	24	19	17	177
YOUTH	23	17	22	24	24	22	22	17	18	172
BPD	26	17	23	28	27	24	24	20	17	183
KADES	23	17	22	24	23	22	21	16	18	162
PLD	18	14	19	19	19	17	18	15	15	135
TA.PED	24	16	22	26	25	22	23	17	16	169
PMD	23	17	22	24	24	22	22	17	18	167
KPW	23	16	21	25	24	21	22	16	15	167
ACADEMICS	25	14	22	26	25	23	25	20	16	180
Di	185	127	173	199	199	175	179	141	134	1512

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Resource: Processed

From the results of the MDII table, Indirect Influences (*Ii*) show a direct and indirect effect. Meanwhile, the Direct Influences (*Di*) indicator shows the degree of direct and indirect dependence (Fauzi, 2019). Based on the test, the BPD actor has the most significant factor that has an Indirect influence on the VOE development, presented by the score of *Ii* at 183. This result posits that the BPD through village meetings has a powerful direct and indirect impact on the establishment and development of VOE in the post-COVID-19 pandemic era. Law No. 6 the Year 2014 explains that the BPD represents the village population-based on regional representation and women's democratically chosen representation. BPD has a role in discussing and agreeing on the Draft Village Regulation with the Village Head, accommodating and sharing village community aspirations, and supervising the village head's performance. The BPD and the village government elements of the village community conduct village deliberations to determine strategic issues in village government implementation. One of these strategic issues is VOE establishment, a form of management and disposal of village assets that can be used to develop VOE.

The highest level of Direct Influence (*Di*) was achieved by the PLD and the Village Government (KADES) with a *Di* score of 199. This result explains that the PLD and the Village Government (KADES) are the two actors that have the highest dependency on BPD policies to carry out VOE development programs. Based on village minister regulation number 18 the Year 2019, PLD is a professional assistant regulated to provide facilitation, education, mediation, and advocacy to VOE in their working areas in the village. In addition to mentoring and developing VOE, PLD has also been tasked with assisting the village in the administration of village governance, village cooperation, and local village-scale development. Following the findings in the field and calculations from the



MACTOR test, the PLD and the Village Government depend on the results of the BPD agreement in determining the implementation of the Village Government and the development of VOE.

### Map of Influences and Dependences between Actors

The next test is to see the influence and dependence among actors which can be seen based on the quadrant location of each actor. The distribution of actors is divided into four quadrants. Quadrant 1 is an actor with low influence and dependence. Quadrant 2 is an actor with high influence and dependence. Quadrant 3 is an actor with low influence and high dependence. Quadrant 4 is an actor with low influence and low dependence. The following is a quadrant distribution of actors:

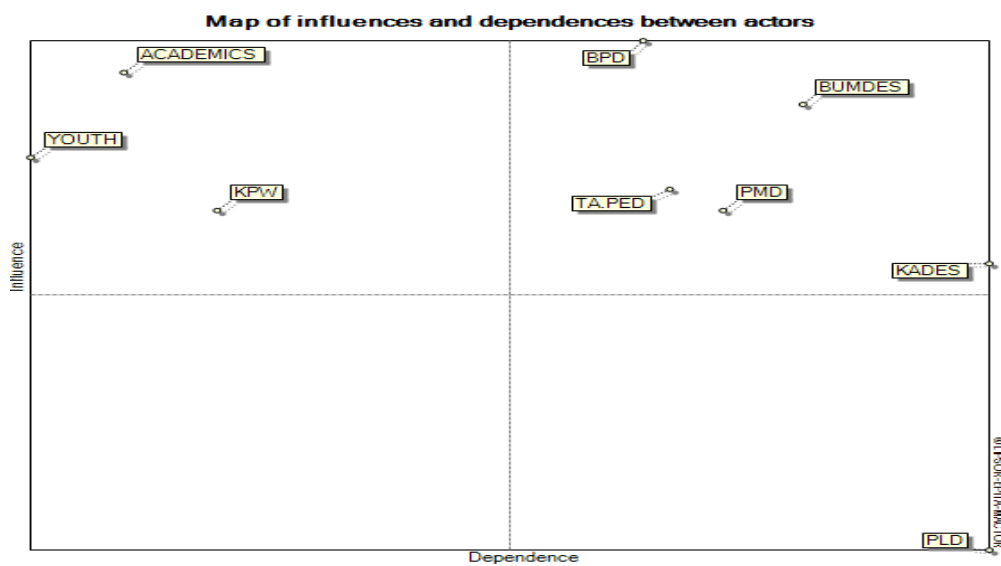


Figure 1. Quadrant of Actor

The results show that the actors in quadrant 1 are Academics, Youth Organizations, and KPWs. The results in the field reveal that the involvement of these three actors has no effect and depends directly on the development of VOE. This insignificant is caused by academics only relying on theoretical plains not applicable in VOE. At the same time, Youth Organizations do not cooperate with the village government, and even some sources mention it as a barrier. KPW is a professional assistant whose work field is in the province, which can cause insignificant effects because the coordination line is too far away.

Actors in quadrant 2 are the main actors in this study, such as BPD, VOE, TA.PED, PMD, and Headman. Following the findings in the field, these five actors actively coordinate and evaluate the performance of VOE. Following Sleman Regent Regulation No. 83 of the year 2016, the PMD is the implementing element of government affairs in the field of community and village empowerment, led by the Head of the Service, who is responsible to the Regent through the Regional Secretary, one of whose functions is the implementation, service, guidance, and

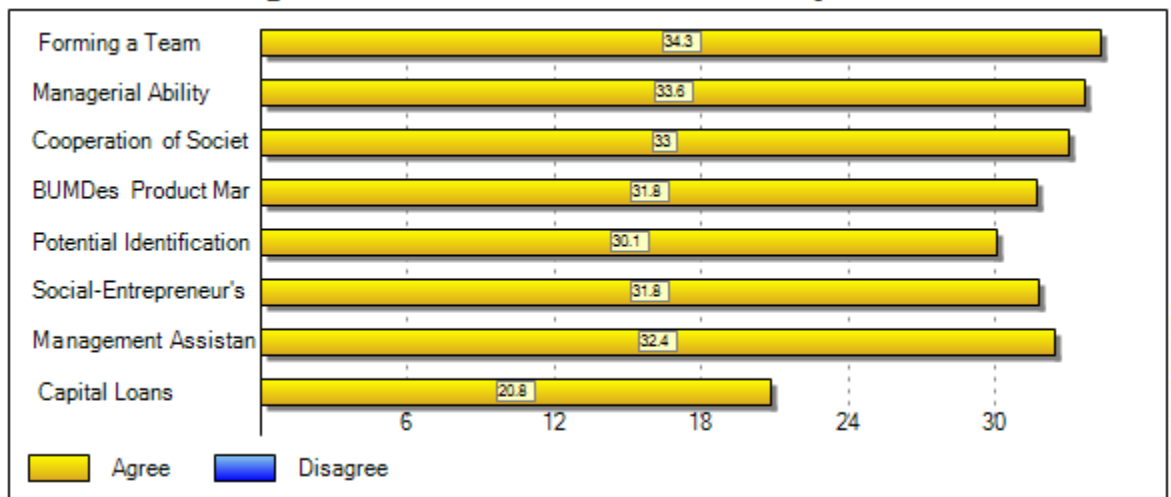
control of government affairs in the field of community and village empowerment, which includes VOE. Meanwhile, TA.PED is a reGENCY or regional city government facilitation related to the socialization of village regulation, two of whose main tasks are establishing and developing VOE. Actors in quadrant three reveal that they have no influence but are highly dependent on other actors, who are PLD. As explained in the findings in the MDII test, PLD is dependent on and as the implementer of policies from the BPD as a decision-maker on the direction of VOE development. Furthermore, this study reveals no actors in quadrant 4, whereas those with no effect and no dependence in this quadrant.

These results are related to research conducted by Merta et al. (2018) which reveal that the government has a major role as a regulator, facilitator, and executor. Thus, the government referred to here, namely BPD, VOE, TA.PED, PMD, and the village headman will collaborate in monitoring village developments that have been jointly determined. Then, analyze the development of VOE which aims to find out and understand the facilities and infrastructure needed, and preparation of training to increase community capacity as needed. Youth Organizations and KPW are part of the community that must cooperate with stakeholders from the government, as well as academics who play more roles in research and teaching so that the role of academics is more in criticizing the development of VOE more objectively (Mertha, et al, 2018).

### Actors Objectives Relationship

This section will explain an actor's position on each factor and the proposed goal.

**Histogram of actor's mobilisation towards its objectives 3MAO**



**Figure 2**

The number of agreements reveals that none of them has a negative value (number of disagreements), which means that all actors accept all strategic objectives. Furthermore, the degree of mobilization is sorted, which explains the order of importance of the proposed strategic objectives as follows: Forming a team is in first place with 34.3 points, followed by managerial ability with 33.6

points, cooperation of society with 33.0, management assistants with 32.0 points, social entrepreneurs and product marketing VOE with a score of 31.8, potential identification with a score of 30.1 and the minor score is capital loans with a score of 20.8.

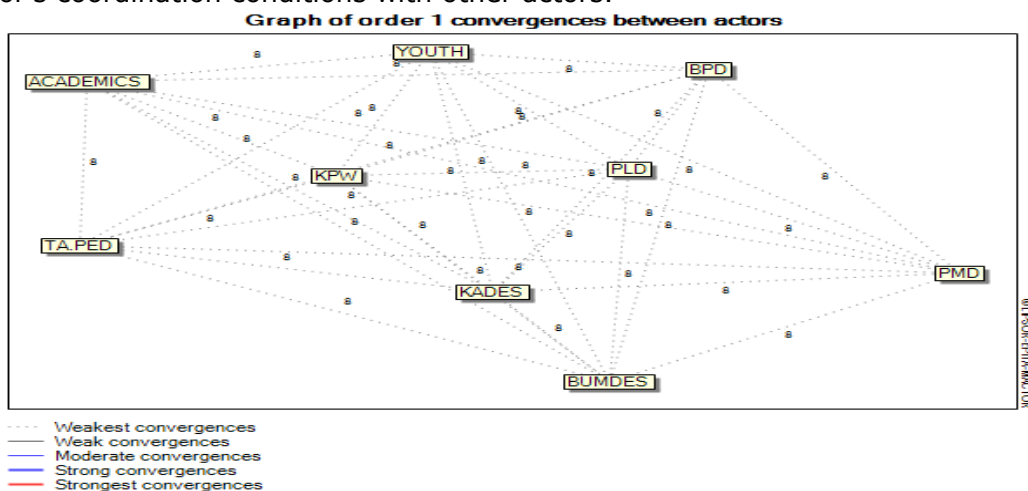
Team formation and managerial ability are strategic goals with the highest score, which indicates the level of interest in the development of VOE. In line with the findings in the field, in the context of developing VOE post-Covid-19, a solid team is needed with a broad and far-sighted view of business and business units. This finding is followed by the need for the internal management of VOE to organize and fix the VOE management.

Regarding the eight strategic objectives proposed to the informants, potential identification and capital loans came in last place with a score of 30.1 and 20.8, respectively. The findings from informants explained that the success of VOE does not always depend on the potential that exists in the village, although it cannot be denied that this is important, because this can be resolved when VOE is led by someone who has a social entrepreneur spirit. Then, having those spirits can create or find opportunities in the village. As for capital loans, the informants assumed that village assets and village funds were still sufficient in financing the VOE development program. Hence, there was no need for additional funds or loans from third parties.

Based on research by Muhammad et al. (2021), one of the weaknesses of VOE is a less professional capacity management apparatus. Specialized training would be needed, such as in management, financial management and accountability, and marketing. Therefore, well-organized VOE management is needed for the sustainability of the VOE business and business units.

### Convergence and Divergence Analysis

Convergence analysis aims to analyze the condition of the influence and dependence of each actor on other actors. Convergence can also explain each actor's coordination conditions with other actors.



**Figure 3.** Convergences Analysis

MACTOR analysis results show that all actors have very weak convergence. It means that coordination between institutions in developing VOE after the Covid-19 pandemic is inadequate. The result suggests that weak coordination is due to some actors still considering VOE as an economic business unit owned by the Village Government. Several institutions in the village area usually perceive this, such as youth organizations. Meanwhile, other coordinating institutions above it become unable to move when the Village considers the establishment and development of VOE to be unessential.

Divergence analysis aims to investigate the divergence between actors. The divergence between actors includes three orders. The first order identifies the number of potential conflicts between actors. The second order describes the relationship between actors and goals for their preferences with the intensity of the conflict. The third order has a weighted value that shows each pair's intensity of the conflict.

MACTOR divergence analysis of first-order to third-order results focuses on one convergence goal. This result explains the absence of potential conflicts between actors. Following the research findings, there is no potential for problems between actors. This finding reinforces the convergent analysis that the absence of conflict is due to the absence of interaction or coordination between actors. It can be explained that each actor does not make maximum efforts to coordinate VOE development.

## **Discussions**

The Indonesian government issued Law No. 6 the Year 2014 discussing villages, which regulates rural development to improve the welfare and quality of life of rural communities. Setiawan (2019) explains that efforts to reduce the gap between villages and cities are made by accelerating the development of independent villages and building local economic linkages between villages and cities through rural areas development. VOE is one of the instruments to optimize its role as a legal local economic institution at the village level to improve the welfare and income of rural communities.

In Constitution No. 4, the Year 2015 has defined VOE as a business entity whose capital is mainly owned by the village with direct participation from separated village assets and the village community's capital participation. VOE establishment aims to improve village economy, maximize community efforts to manage village potential, create opportunities and employment opportunities, and upgrade community welfare by increasing village community income and real village income by forming business units according to village potential.

The COVID-19 pandemic at the end of 2019 impacted small business units and VOE, caused financial problems, supply stock disruptions, decreased demand and decreased sales and profits. In addition, it was recorded that more than 83% of business units were unprepared to deal with this disaster and did not have a strategy to deal with disasters (Shafi, et al., 2020). The pandemic outbreak also

stopped the operation in 80% of small business units is due to citizen movement restriction by the government, causing no demand for products or services, especially those engaged in tourism (Dai, et al., 2021).

Based on a performance report from the KPW in Yogyakarta from 2015 to 2020, there were 332 VOEs, which means 85% of the total number of villages, while during the Covid-19 pandemic 63 VOEs experienced a significant impact on various business units. Several closed business units include tourism, lodging, swimming pools, cafes, and restaurants. Business units that are open but reduce their working hours include rental service units, photocopying or office stationery, processing or production, and savings and loans. In comparison, the VOE business units that still survive are clean water treatment and commodities.

VOE affected amid the pandemic are mainly due to the lack of strategic planning used and the weak guidance of stakeholders related to the problems being encountered. VOE guidance and assistance include several actors who must be involved, multi-level, multi-factory, and multi-participant (Wang, et al., 2017). Supervising from stakeholders is needed namely government, societies, and village officials (Dwinugraha, 2017). The synergy of support and involvement of all VOE stakeholders is the most significant factor in dealing with the Covid-19 pandemic shock. The village government becomes the operational supervisor of VOE to ensure that VOE implementation is following Regional Regulations and Laws that have been determined by the village board (Kania, et al., 2021).

The realization of VOE assistance and restructuring realization in Yogyakarta after the Covid-19 pandemic is very dependent on the collective work of all policymakers (Chen et al., 2019). Including strategic plans or factors along with the Covid-19 pandemic must also be prepared as a step to survive and develop (Pratiwi & Novianty, 2020). This study aims to identify the actors and their respective roles in the post-covid-19 VOE development program and use the MACTOR analysis tool to identify strategic plans or factors in dealing with the pandemic. This research was conducted in Yogyakarta, involving nine actors from academics, regulators, practitioners, and communities identified as having a role in BUMDes development.

Based on the MDII, the BPD has the highest Li value of 183, which means it has a direct and substantial impact on the management and development of VOE, while the actor has the highest dependence with a score of  $Di = 199$  is the PLD. The following finding is that the main actors in the development of VOE after COVID-19 are BPD, VOE, TA.PED, PMD, and Village Government. The five actors have a line of coordination and close relationships. The relationship or cooperation of the five actors is the key to success in VOE development after Covid 19.

Based on the theory, rural development is a multi-level, multi-factor, and multi-participant process, including population, resources, environment, economy, and society (Wang et al., 2017). In line with the research conducted by (Yunardi et al., 2019), the results of this study indicate that the actors who have

a powerful influence are the government. They are key actors who can work together because they have the same goal: maintaining natural resources for village communities. The role of the village head must be the leading actor in facilitating the objectives of the VOE. In addition, the government plays a role as an actor who must bridge the function of environmental sustainability that will ensure the sustainability of natural resources. In contrast, academic actors play a role in educating the parties regarding the objectives of VOE both directly and indirectly to all actors.

The other finding in this study is that all of the proposed strategic objectives are responded to by the positive scores from all actors or stakeholders, which means that all strategic factors are approved to be implemented. Meanwhile, objective strategic factors are assessed through a priority scale by analyzing actors' objective relationships. Forming a team and managerial ability showed the highest score, which means that the activity is absolute and must exist in the post-covid-19 VOE development effort. In contrast, the lowest score is capital loans and potential identification. This last finding (.....) follows Bryden's theory which explains that the competitive advantages of the village are in the form of social capital, cultural capital, environmental capital, and local wisdom (Bryden & Dawe, 1998). The potential based on in-depth interviews in the field can be explored and created when the VOE institution is led by a director and manager who has an entrepreneurial spirit or social entrepreneurship.

### **Conclusion and Recommendation**

Through MACTOR stakeholder analysis, BPD was proven to have an essential involvement and role in optimizing VOE performance during the Covid-19 pandemic. In line with the Ministry of Home Affairs Regulation Number 110 in 2016 concerning the Village Consultative Board, the BPD has an essential task, starting from exploring community aspirations to evaluating reports on the implementation of village apparatus performance. On the other side, the stakeholder analysis also found another important actor, such as VOE, TA.PED, PMD, and Village Government. Therefore, the coordination of these five actors plays a significant role in the quality of VOE performance.

Each actor in this study has their respective roles, which are interconnected and coordinated, either directly or indirectly. By investigating the role of actors and their coordination pathways in VOE development, this study contributes to the literature by providing dimensions of coordination pathways, roles, and strategic goals that must be carried out in the post-covid-19 era. In addition, this research also contributes to the literature on the actors involved in the development of VOE, supporting the government in making regulatory policies. The results of this study are certainly beneficial as a reference and evaluation of the VOE development program. Weak coordination between actors needs to be responded to with a transparent system and supervision providing a solid team framework and professional VOE management to accelerate the

success of VOE in the development of rural areas post-covid-19.

In addition, this study evidenced that all actors agreed that the eight factors or strategic plans proposed had determined the most on VOE development. The study reveals that a solid team is the most important factor for the success of VOE in developing rural areas. On the other hand, capital loans and village potential are insignificant factors. This research also reveals the weak coordination between actors, which this condition is potentially reducing the VOE success rate.

This research has some limitations in the scope of its case study. The nature of the case that cannot be generalized to other cases allows the findings of different results. To achieve a more comprehensive research roadmap, it is necessary to investigate further research with cases covering a broader area with other regions in Indonesia, including studies in other developing countries. Further research can also focus on the VOE Director as the highest internal leader in the management of VOE and the criteria and competencies that must be possessed for post-covid-19 VOE development.

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