

## **Social and Human Capital Development in Village-Owned Enterprises: Implications for Performance Enhancement**

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### **ABSTRACT**

*The count of Village-Owned Enterprises (VOEs) across Indonesia has consistently escalated annually. However, the optimal utilization of VOEs in labor absorption remains unrealized because of suboptimal business performance. Thus, the formulation of a performance-enhancement model for VOEs is imperative. The primary objective of this study was to identify the challenges, propose solutions, and formulate a comprehensive model to improve the performance of VOEs. Data were collected using a mixed methods approach. Data collection used a mixed methods approach through diverse channels including observation, questionnaires, Focus Group Discussions (FGDs), and documentation. The resultant data were subjected to analytical techniques, including descriptive analysis, fishbone diagrams, and Structural Equation Modelling (SEM) for rigorous evaluation. The findings highlight that human resources are the core obstacle contributing to VOE underperformance. Employees regard interpersonal skills as the foremost dimension in cultivating social capital, significantly shaping human capital development. In terms of performance, the variable with the highest agreement was innovation capability. As such, selecting Social Capital and Human Capital as the foundational pillars for the performance improvement model of VOEs in the West Bandung Regency was both fitting and well-founded.*

**Keywords:** performance, Village-Owned Enterprises (VOEs), village, West Bandung Regency

## INTRODUCTION

Over the past decade, the Indonesian government has devoted significant attention to rural development, underscored by the enactment of Law Number 6 of 2014 regarding villages. This legislative measure ushered in a new era of focus and optimism for rural communities pursuing developmental objectives. The chief among these goals is the advancement of the rural populace's well-being, the enhancement of human life quality, and the reduction of poverty. These goals can be achieved by fulfilling fundamental needs, fostering infrastructural progress, harnessing local economic potential, and ensuring the sustainable utilization of natural resources and the environment. The emergence of this law subsequently served as the legal foundation for the allocation of village funds by the government aimed at expediting the development of rural areas.

A key strategy in accelerating rural development has been to establish and operate Village-Owned Enterprises (VOEs). As delineated in Law Number 6 of 2014, a VOE is an enterprise whose capital ownership predominantly rests with the village. This ownership is facilitated through direct participation, leveraging a portion of the village's wealth to manage assets, services, and other commercial activities to enhance the welfare of the village community. Within articles 87-90 of the law state that VOEs are authorized to engage in economic pursuits and public services governed by communal camaraderie and cooperative management ethos. The establishment of VOEs is a deliberate effort by the village administration to tap into its economic resources, leverage financial institutions, and harness the potential of both human and natural resources, all directed towards elevating the well-being of rural populations.

The development of Village-Owned Enterprises (VOEs) has demonstrated a constructive influence on rural communities, engendering community empowerment by harnessing latent resource potential within the village context. Several studies have reported the positive impact of VOE on improving the village economy and welfare of rural communities (Amri, 2015; Arindhawati & Utami, 2021; Caya & Rahayu, 2019). VOE encourages communities to start new businesses based on local potential (Caya & Rahayu, 2019), provides capital sources for community micro-business development (Amri, 2015; Gayo et al., 2020), creates job opportunities (Gayo et al., 2020), and provides PADes donations for the provision of community public facilities (Arindhawati & Utami, 2021; Gayo et al., 2020). This evidence underscores the pivotal role of VOEs in bolstering Indonesia's economic landscape.

However, divergent research findings warrant a more nuanced perspective. Some studies reveal that the impact of VOEs on rural economic growth remains limited, thus necessitating enhanced performance (Aritenang, 2021). Distinct research underscores that the performance of VOEs in terms of service quality, responsiveness, and accountability still leaves room for improvement (Risalah & Eriswanto, 2023). Suboptimal participation rates and deficiencies in human resource capacity impede VOE efficacy (Gayo et al., 2020). In this context, the enhancement of VOE performance is contingent upon augmenting VOE managers' understanding of effective governance mechanisms (Risalah & Eriswanto, 2023). This contention is reinforced by findings suggesting that institutional management practices considerably influence the performance of VOEs (Singgih, 2021). Hence, notwithstanding the favorable contributions of VOEs to the village economy, a comprehensive appraisal necessitates acknowledging areas for the enhancement of VOE performance.

Quantitatively, the landscape of VOEs in Indonesia is noteworthy, with the total number of VOEs reaching 27,180, of which 14,895 were formally incorporated. Simultaneously, Joint VOEs numbered 1,239, with 1,291 formally incorporated (Ministry of Villages Development of Disadvantaged Regions and Transmigration, 2023). The proliferation of VOEs across Indonesia has been a consistent phenomenon, with the data furnished by MoV indicating that the province of West Java is one of the nation's regions with the highest concentration of VOEs.

The West Bandung Regency, situated in West Java Province, is characterized by many resource-rich villages. The economic growth of this region is robust, partly because of the shift from agrarian-based

livelihoods to an industrial orientation. Similarly, the development of Village-Owned Enterprises (VOEs) in this area has increased. According to the data, the count of VOEs in West Bandung Regency surged from 147 in 2020 to 152 in 2021 and further to 164 in 2022 (Government West Java provincial, 2023). Nonetheless, despite the increase in VOEs, they have yet to address unemployment issues in the area substantially. Although the number of unemployed people in the West Bandung Regency decreased from 89,202 in August 2021 to 78,920 in August 2022, the Open Unemployment Rate (TPT) remains relatively high at 9.63 per cent. It shows that around nine people are unemployed for every 100 people in the labor force (BPS West Bandung regency, 2022).

Previous studies have revealed misalignments in the performance of VOEs in the West Bandung Regency (Rahmawati, 2020). Performance is the result of work quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him (Mangkunegara, 2013). Factors that affect performance consist of ability and motivation, which are highly dependent on the capital owned by an employee. Human ability plays a crucial role in influencing organizational performance, because it is closely related to intellectual assets (Yuliarmi et al., 2021). The ability of human capital to apply knowledge to their work will give a company an advantage and contribute to business continuity (Basri et al., 2021). The components of human capital, according to the Organization for Economic Cooperation and Development (OECD) in 2001, include communication skills, numerical abilities, intrapersonal abilities, interpersonal abilities, and other abilities. In addition to human capital, social capital plays a role in driving organizational performance. In addition to knowledge and skills, social capital is a part of human capital (Ancok, 2003). The presence of social capital is an important condition for creating effective and efficient governance (Aritenang, 2021). Social capital deals with the attributes of social structures such as networks, norms, and beliefs that enable mutually beneficial coordination and cooperation (Yuliarmi et al., 2021).

Based on the theories discussed earlier, it is evident that the performance of organizations depends on the conditions of both human capital and social capital. Despite efforts to leverage technology to accelerate Village-Owned Enterprises (VOEs), limited human resource competence and experience remain significant hurdles (Marsus & Naini, 2020). Consequently, there is a pressing need for further studies aimed at enhancing the VOE performance. This study addresses this gap by exploring a performance improvement model tailored to VOEs in the West Bandung Regency. By identifying existing issues and proposing practical solutions, this study contributes valuable insights to policymakers, practitioners, and researchers involved in rural development and economic empowerment efforts. Moreover, the proposed performance improvement model outlined in this study serves as a strategic roadmap for stakeholders, facilitating the harnessing of the economic potential, job creation, and community well-being of rural areas.

## **METHODS**

This study analyzes the influence of social and human capital on VOE performance in the West Bandung Regency. The location of the study was intentionally determined (purposive), which is how to take the research area by considering the known reasons for the area (Singarimbun, 1991). The selection of West Bandung Regency based on the consideration that this regency has natural and economic potential that contributes significantly to regional and national economic development. Some possibilities include mining, plantations, animal husbandry, food crops, purple horticulture, and natural potential, which are promising for tourist objects. In addition, various superior products are produced in West Bandung Regency, including handicrafts with essential ingredients such as bamboo, fish bones, crocodile skin, and different types of processed foods that make typical foods. However, many of these potentials have not been managed by many VOEs in West Bandung Regency, which have been established for a long time, and the existing VOEs have not contributed significantly enough to the absorption of labor in West Bandung Regency.



**Figure 1.** Map of West Bandung

The variables in this study were performance, Social Capital, and Human Capital. Referring to (Dokko, 2004), performance variables are dependent variables with indicators, including productivity and innovation power. The indicators for social capital in this study are the structural, relational, and cognitive dimensions (Nahapiet & Ghoshal, 1998). The structural dimension refers to connectivity patterns among actors, while the relational dimension pertains to assets generated through relationships, akin to behavioral embeddedness. The cognitive dimension encompasses shared representations and interpretations among parties (Nahapiet & Ghoshal, 1998). As a public good, it is not privately owned by its beneficiaries and tends to be inadequately supplied by private agents, necessitating its emergence as a by-product of various social interactions. It is characterized by portability across diverse social contexts (Putnam, 1993). Furthermore, empirical evidence highlights the direct correlation between social capital and enhanced output, resulting in the increased productivity of other resources, such as human and physical capital (Grootaert & Bastelaer, 2002). The definition of human capital in this study encompasses a range of key skills and attributes that are essential for individuals' productivity and success. These include communication (listening, speaking, reading, writing, and foreign language proficiency), numeracy, intrapersonal skills (motivation, self-discipline, and ethical judgment), interpersonal skills (teamwork and leadership), proficiency in information technology, tacit knowledge, problem-solving abilities, and physical dexterity. These components collectively contribute to individuals' capacity for success across various personal, professional, and societal contexts (OECD, 2001).

Human resources are the determining factors for VOE performance. Therefore, the performance improvement model in Village BUM is allegedly influenced by two variables related to human resources: human Capital and Social Capital. The three variables were then tested for direct and indirect influences using Structural Equation Modeling (SEM) with a Partial Least Square (PLS) approach. With this model, it is hoped that the factors that affect the performance of VOE can be determined so that it can be used as a benchmark for developing VOE in the future.

The next stage is formulating problems and solutions based on research findings with related parties using fishbone diagram analysis. The results provide several managerial implications that can be used as inputs to improve VOE performance.

This study focuses on a model for improving VOE performance based on social and human capital. In this study, we examined the influence of variables in the form of a model. Research has focused on

the role of intra- and extra-industrial networks as one of the elements forming Social Capital, which can prove that social capital is a mediating medium that strengthens the relationship between entrepreneurial orientation and performance (Stam & Elfring, 2008). Therefore, this model demonstrates that human capital directly affects performance and Social Capital as a moderating variable. The research hypotheses are as follows:

1. H0: Social capital has no direct influence on human capital.  
H1: Social capital directly influences human capital.
2. H0: Social Capital has no direct influence on VOE performance  
H1: Social capital directly influences VOE performance
3. H0: Social Capital has no indirect effect on VOE performance.  
H1: Social capital indirectly influences VOE performance.
4. H0: Human Capital has no direct influence on VOE performance  
H1: Human capital directly influences VOE performance.

The population in this study was VOEs located in the West Bandung Regency. For better data quality, the requirements for VOEs that can be used as a sample in this study are as follows: VOE is actively operating, has at least three workers, and actively participates in training from related agencies. Based on data from the West Bandung Regency, 130 VOEs were identified. The sample calculation used the Cochran formula with a confidence level of 90%, confidence interval of 21%, and population proportion of 50%, as follows:

$$n' = \frac{n}{1 + \frac{z^2 \times \hat{p}(1-\hat{p})}{\epsilon^2 N}} = \frac{130}{1 + \frac{1,96^2 \times 0,5(1-0,5)}{0,1^2 \times 130}} = 14 \dots\dots\dots (1)$$

Where:

z = z value

ε = margin of error

N = population size

$\hat{p}$  = proportion of population

The sampling technique used in this study uses purposive sampling techniques, namely the deliberate selection of samples following the required sample requirements. Using this sampling method, data were obtained from 15 VOEs in the West Bandung Regency.

Primary and secondary data were used in this study. Primary data were obtained through observations, questionnaires, FGD, and documentation. Meanwhile, secondary data are obtained from various literature sources, such as documents and articles from the Internet, which are relevant to the discussion of this research. Secondary data included VOE profiles, VOE AD/ART, VOE reports, books, previous research, and others.

Instrument tests were conducted to determine the accuracy of the questionnaires. The tests used are Validity and reliability tests were conducted. Validity comes from word validity, which refers to the extent to which a measuring instrument accurately performs its size function (Azwar, 1986). Validity tests are used to measure a questionnaire's validity (Ghozali, 2009). A questionnaire is said to be valid if the questions can reveal something that it will measure. In this study, the validity of the questionnaire was tested using SPSS 23 software. The respondents to this validity test were 30 VOE employees from 15 VOEs. A study is valid if it correlates highly with an item's total score. Conditionally, the value of r calculates > r table (0.32).

Reliability comes from word reliability. Reliability refers to the understanding that the instruments used in research to obtain information can be trusted as data collection tools and can reveal actual information in the field (Sitinjak & Sugiarto, 2006). Reliability is the consistency of a set of measurements or a series of measuring instruments. Measurements from the same instrument (tests

with retests) yielded the same results. Reliability tests on the questionnaires were conducted using SPSS 23 software. The respondents to this reliability test were 30 VOE employees from 15 VOEs.

The data analysis methods used in this study were as follows:

**Descriptive Analysis.** Descriptive analysis is a method used to analyze the VOE profile in Bandung Regency. The shape of VOE that will be examined is based on data on business type, number of employees, employee competence, business turnover, and future business development plans, which are listed in the questionnaire.

**Fishbone Diagram.** A fishbone diagram is a structured approach that allows a more detailed analysis to determine the causes of a problem, discrepancies, and gaps (Nasution, 2001). Fishbone analysis is carried out in several steps, namely, identifying problems in VOE, determining the leading cause of the problem (main problem target), and setting improvement targets.

**Structural Equation Modelling (SEM).** Structural Equation Modeling (SEM) is a multivariate statistical analysis technique that allows researchers to examine direct and indirect influences between complex variables, both recursive and non-recursive, to obtain a comprehensive picture of a model (Ghozali, 2005). Unlike ordinary multivariate analysis (multiple regression and factor analysis), SEM analysis can simultaneously perform structural model testing (relationship test between latent variables) and measurement models (test the relationship between indicator variables and latent variables) to test measurement errors and perform factor analysis simultaneously with hypothesis testing.

In the SEM analysis, measurements were conducted on two (2) constructs: latent and manifest variables. Latent variables in SEM cannot be measured directly; therefore, observations of latent variables are made through the effects of manifest variables. Manifest modifiers are measurable indicators (Ghozali, 2005). In the SEM model, latent variables based on their functions are divided into two (2): exogenous and endogenous variables. An exogenous variable cannot be influenced by other variables (independent variables in the regression models). In contrast, endogenous variables can affect other variables. Ghozali (2005) also states that in the SEM model, endogenous variables can act as independent variables if they can influence other variables.

Technically, SEM is divided into two groups: covariance-based SEM (CBSEM), represented by LISREL software, and variance-based SEM (VBSEM), which uses SmartPLS software. Covariance-based SEM (CBSEM) aims to provide statements about causality relationships or descriptions of cause-and-effect mechanisms. The variance-based SEM (VBSEM) with the partial least squares (PLS) approach seeks to find predictive linear relationships between variables (Ghozali, 2008).

SEM is a multivariate statistical technique combining factor analysis and regression analysis (correlation), which aims to examine the relationships between variables in a model, indicators, and modifiers, and relationships between variables (Santoso, 2011). Some commonly used terms in SEM analysis are: (1) latent variables are also known as unobserved variables; (2) manifest variables are also known as observed variables, measurement variables, or indicators; (3) exogenous modifiers are independent modifiers that affect dependent modifiers. In the SEM model, exogenous variables are indicated by arrows from these variables to the endogenous variables, and (4) endogenous variables were influenced by independent (exogenous) variables. The SEM model is indicated by the arrows that go to the modifier.

Several stages must be used to apply SEM in a study (Santoso, 2011), namely: (1) create an SEM Model (model specifications). At this stage, the model is prepared based on theory and diagrams, and then data are entered to form a measurement model and a structural model; (2) research design preparation After the model is created and tested, the assumptions that should be met in SEM, treatment of missing data (if there are enough), collecting data, and so on will be tested; (3) model identification. After a model is created and the design is determined, identification tests are carried out so that the model can be analyzed further. The calculation of degrees of freedom is vital at this stage; and (4) model testing and model estimation. The measurement model is tested, followed by the structural model. By testing the measurement model, the closeness of the relationship between the

indicator and modifier is obtained. If the measurement model is considered valid, testing is continued on the structural model to obtain correlations that show the relationships between variables, including the possibility of respecification activities in an SEM model.

## RESULTS AND DISCUSSION

The latent modifiers in this study consisted of three (3) latent, namely Social Capital, Human Capital, and performance. SEM analysis with PLS was used to determine the form and magnitude of the influence of social capital, which is a pure independent variable on human capital and performance, either directly or indirectly. Human Capital is a dependent variable on Social Capital as well as an independent variable that has a direct influence on performance.

### Measurement Model Testing (Outer Model)

An analysis was conducted on the performance improvement model of the VOE in the West Bandung Regency. All manifests in this research model are reflective, so it is necessary to analyze the outer model using five criteria: Convergent Validity, Composite Reliability, Average Variance Extracted (AVE), square root AVE, and cross-loading (Ghozali, 2008).

Convergent validity is defined as the magnitude of the loading factor for each manifest. A good model manifests with a loading factor value greater than 0.5. Composite reliability indicates internal consistency, with a standard value above 0.6. The AVE indicates construct validity, with a common value greater than 0.5. At the same time, AVE squared and cross-loading demonstrate discriminant validity, where the standard value for the square root of AVE must be greater than the correlation value between variables, while cross-loading each manifest must have a higher loading for each latent variable measured compared to manifests for other latent variables. The results of the outer model testing against these criteria are presented in Table 1.

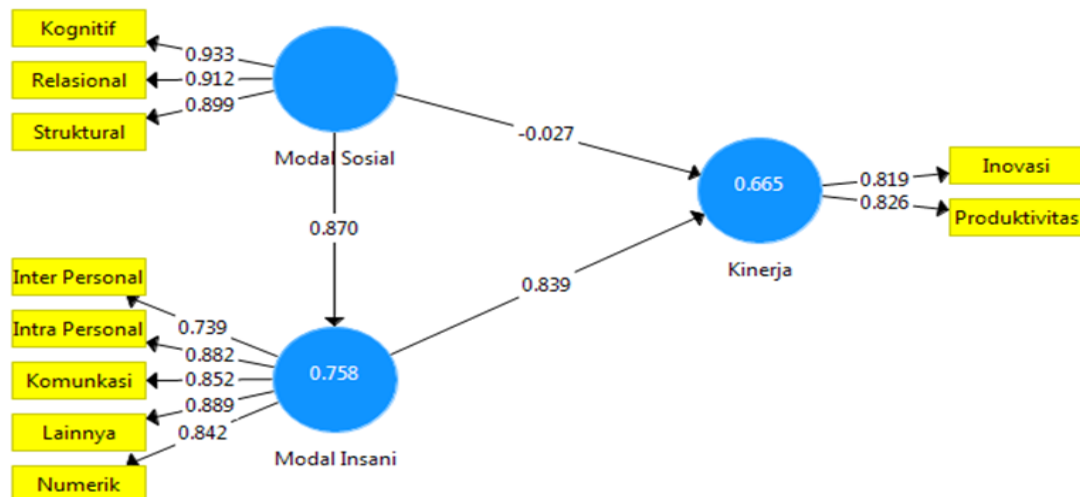
**Table 1.** Results of Assessment of Reflective Model Criteria and Value Standards on the Outer Model

Criteria	Standard	Assessment Result
<i>Loading Factor</i>	$\geq 0.5$	All manifests have a loading factor value of more than 0.5
<i>Composite Reliability</i>	$> 0.6$	Social Capital = 0.939 Human Capital = 0.924 Performance = 0.807
AVE	$> 0.5$	Social Capital = 0.837 Human Capital = 0.710 Performance = 0.676
Square Root AVE	Greater than the correlation value between variables	All AVE square root values of the latent modifier. Greater than the correlation of other latent variables
<i>Cross Loading</i>	Each manifest has a higher loading for each latent measured than manifests for other patients.	All indicators have a more significant correlation to the latent itself than a correlation to other patients.

Based on the data above, the performance improvement model of VOEs in the West Bandung Regency all manifests have a loading factor value greater than the predetermined standard. According to Chin and Ghozali (2008), if the coefficient or loading factor of each manifest in a model is less than 0.5, it must be reduced to produce a good measurement model. However, because all manifests already have a loading factor of more than 0.5, the data-processing process can be carried out in the next stage.

For the composite reliability criterion, the model shows that all latent variables used in this study have numbers above the standard number of 0.6. This means that all the modifiers used in this study can consistently explain the conditions they want to know through customer satisfaction models. In the AVE criteria, it can be seen that all latent variables have values above 0.5, which means that they meet the construct validity test requirements.

The square root criterion AVE from the performance improvement model shows that the entire manifest has a better value than the correlation of other latent variables. The last criterion, cross-loading, shows that all indicators correlate more significantly with the latent than with other patients. Based on these five criteria, it can be concluded that the performance improvement model meets the requirements of a good model, so that it can be continued for processing in the next stage. The performance improvement model, after calculating the outer model, is shown in Figure 2. Based on the figure, it is known that none of the manifests has been reduced because all of them have met the criteria.



**Figure 2.** Performance Improvement Measurement Model

### ***VOE in West Bandung regency***

The latent variables used in this study represent the research model, because they have a sufficiently significant coefficient of determination. Therefore, the latent variables in this study can be used as a basis for policy-making to improve the performance of VOEs in West Bandung regency or other villages in Indonesia with similar characteristics.

**Social capital.** The latent modifiers of Social Capital in the performance improvement model of VOEs in the West Bandung Regency consist of manifests including structural, relational, and cognitive dimensions. Based on data processing for measurement models or outer models, all manifests in latent social capital have a loading factor value of more than 0.5, the minimum standard if a manifest is to be maintained in a model. The loading factor for each manifest was a cognitive dimension of 0.933, a relational dimension of 0.912, and a structural dimension of 0.899. Judging from the significant loading factors of the three manifests that reflect social capital, these three manifests strongly reflect social capital in the performance improvement model of VOEs in the West Bandung Regency.

These three manifest aspects must be considered if we consider social capital as one of the capitals that can be optimized to improve the VOE's performance. Moreover, of the three manifestations, the cognitive dimension had the most significant loading factor value of 0.933. The cognitive dimension in this model concerns how knowledge and skills are developed among employees of VOE. Also included is how these employees share knowledge and communicate about their knowledge in easy-to-understand terms to achieve the previously set VOE goals.

Furthermore, the manifest with the smallest loading factor value is a structural dimension of 0.899. The structural dimension in this model concerns the relationship between people in the same or different units with formal structural order. This includes building communication and cooperation with colleagues in the same unit, in different units, or with legal superiors. The structural dimension is also related to employee involvement in resolving conflicts and employee participation in informal activities held by the VOE.

Based on this information, it is obtained that in social capital, employees prefer to avoid formal things that follow the existing structure. By sharing knowledge and communicating it well, employees can



build social relations and achieve the goal of forming a VOE. Therefore, if one wants to rely on social capital as one of the pillars to develop VOE in the West Bandung Regency, it is necessary to consider that not everything formal and structural can be used as a means of development. On the other hand, VOE employees in the West Bandung Regency are passionate about learning new things, which is also their way of socializing with other employees. Therefore, this pattern can be adopted to develop social relations between employees in VOE and to develop knowledge and abilities.

**Human Capital.** Human Capital in the performance improvement model of VOE in West Bandung Regency is human resources owned by a VOE, which is the most important asset because it determines the success or failure of the VOE. Human Capital has five manifests, all retained as part of the model because they have a loading factor value of more than 0.5. The manifest with its loading factor value included a communication ability of 0.852, a numerical ability of 0.842, an intrapersonal ability of 0.882, an interpersonal ability of 0.739, and other abilities of 0.889. All these large loading factor values indicate that these manifests reflect very well the latent human capital, so that these five manifests can be used as a reference for developing human capital as one of the potential developments of VOE in the future.

Of the five manifests that reflect human capital, it was found that the other ability manifests had the most significant loading factor of 0.889. By definition, these different abilities utilize technology, solve problems, and have knowledge based on experience and physical attributes. According to employees, this ability is considered to best reflect human capital, especially in an era with technological advances. The combination of the ability to utilize technology, utilize knowledge to support current work, and find solutions to problems and physical conditions is considered the main human resource ability for VOE West Bandung Regency.

The manifest with the smallest loading factor value is interpersonal ability (0.739), which is the ability of HR to interact with others well by measuring, among others, the extent to which HR can work in teams and leadership. This condition means that human resources at the VOE West Bandung Regency cannot work in teams and have a focal leadership structure. This finding aligns with the state of social capital, namely the structural dimension manifest, which has the lowest loading factor value compared to the other manifests. The relationship between human resources in VOE has not been built so that, socially, the association is created only through communication-related work if someone shares knowledge.

This finding can also be a focus for the development plan of VOE in West Bandung Regency; if you want to do coaching, training should be carried out to create closeness between human resources within the VOE itself so that VOE can develop further.

**Performance.** Performance in this model results from the implementation of certain work, measured through two aspects: productivity and innovation. Productivity is an aspect of performance that determines how much and quickly a job can be completed. By contrast, innovation power is an aspect of workers looking forward and making changes to improve their performance. Latent performance, which consists of two manifests, namely productivity and innovation power, both have loading factor values that are not much different: 0.826 for productivity and 0.819 for innovation power. These results show that these two manifests reflect the performance well because they have a large loading factor value. The two manifests that reflect this performance are also considered by employees not to be significantly different based on the value of the loading factor because they are only 0.007 adrift.

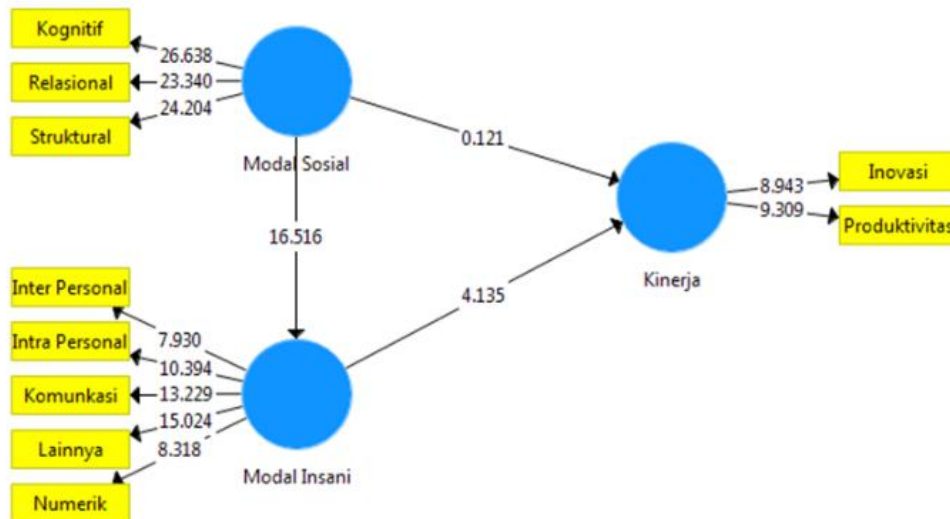
Based on this, the selection of productivity and innovation power reflects how performance is considered appropriate for measuring the extent of HR performance in the VOE in the West Bandung Regency. The difference in value occurs because there is a difference in views between employees who are oriented to complete much work quickly and those who are always oriented to improve their work processes to work more optimally.

### **Structural Model Testing**

The structural or inner model describes the relationship between latent variables based on the substantive theory. The inner part of the model can be assessed by examining the structural model consisting of

hypothesized relationships among the latent variables in the research model. After the resulting loading factor values are appropriate, the existing model is bootstrapped to determine the direct or indirect influence on the performance improvement model of VOE in the West Bandung Regency.

The result of bootstrapping in smartPLS produces path coefficients (S), statistical t-values, and determination coefficients (R square). With this technique, the actual level of statistical models in research to test the hypotheses in each relationship path can be identified so that the direct or indirect effects of the variables used in the study can be known. The results of the data processing for the structural model tests are shown in Figure 3.



**Figure 3.** Structural Model for Improving VOE Performance in West Bandung Regency

The bootstrapping results for the VOE performance improvement model in West Bandung regency in Table 2 show the coefficients for each hypothesis path and their t-statistics values obtained from the smartPLS output.

**Table 2.** The Bootstrap Results of the Latent Variable Weights in the Model for Improving the Performance of VOEs in West Bandung Regency

<i>Path</i>	<i>Original Sample</i>	<i>t statistics</i>	<i>R Square</i>	<b>Hypothesis Test Results</b>
Social capital → Human Capital	0.870	16.516	0.758	Hypothesis 1: Receive H <sub>1</sub>
Social capital → Performance	-0.027	0.121	0.665	Hypothesis 2: Receive H <sub>0</sub>
Human Capital → Performance	0,839	4.135	0.665	Hypothesis 3: Receive H <sub>1</sub>

**Hypothesis Testing 1**

In the VOE performance improvement model in West Bandung Regency, social capital modifiers have a real and positive direct influence on human capital of 0.870, with a t-statistic value of 16,516, which exceeds the minimum standard for a research error tolerance level of 10 per cent, which is 1.654. This means that H1 in this study for the performance improvement model of VOE in West Bandung Regency is accepted, namely, "There is a direct influence of Social Capital on Human Capital."

**Hypothesis Testing 2**

In the performance improvement model of VOE in the West Bandung Regency, social capital does not have a real and positive influence on performance because the t-statistic value is only 0.121, which is lower than the standard set for a research error tolerance level of 10 per cent, which is 1.654. In addition, the original sample that shows a negative number means that these two latent variables have a negative influence; that is, when one variable increases in value, it decreases the other variables. It means that the H0 in hypothesis 2 for the performance improvement model of VOE in West Bandung Regency is accepted, namely, "There is no direct influence of Social Capital on VOE Performance."

### Hypothesis Testing 3

In the performance improvement model of VOE in West Bandung Regency, human capital modifiers influence performance with a statistical t-value of 4,135, more than the standard set for a research error tolerance level of 10 per cent, which is 1,654. It means that H1 in hypothesis 3 for the performance improvement model of VOE in West Bandung Regency is accepted, namely, "There is a direct influence of Human Capital on the Performance of VOE." Social Capital has no indirect influence on other modifiers.

### Analysis of Village BUM Problems

In identifying the problem, the first step is to find the problem and then choose the problem from the many alternative problems that have been found. Focus Group Discussion (FGD) is one of the methods used to identify problems. The following are the results of problem identification obtained through FGD conducted with the management of VOE. From identifying problems and establishing their root causes in the performance of VOE in West Bandung Regency, the findings are presented in Figure 4 of the fishbone diagram outcomes. This diagram provides a comprehensive view of the primary challenges encountered by VOEs in western Bandung. The head of the fishbone diagram signifies overarching issues, the thorns depict the contributing factors to the main problems, and the tail indicates the central cause. These issues form the basis for deriving corrective strategies and solutions, as outlined in Table 4.

Drawing from the model aimed at enhancing the performance of VOEs in the West Bandung Regency, it is evident that social capital variables significantly influence human capital. This is substantiated by the original sample's measurement of 0.870 and t-statistic of 16.516. The potency of this influence is reinforced by a substantial coefficient of determination (R-Square), indicating its ability to elucidate diversity within the prevailing models. Within the BUM Desa performance enhancement model in West Bandung Regency, social capital variables explain about 75.8 per cent of the variance in human capital, with the remaining 24.2 per cent attributed to external factors beyond the model.

Notably, the coefficient of determination underscores the interconnectedness between robust human capital and strong social capital. Consequently, if the aim is to enhance human resource capabilities as valuable human capital, a prudent strategy would be to bolster existing social capital within the BUM Desa. With this understanding, the endeavors to uplift performance within the BUM Desa should commence by augmenting social capital, encompassing cognitive, structural, and relational dimensions.

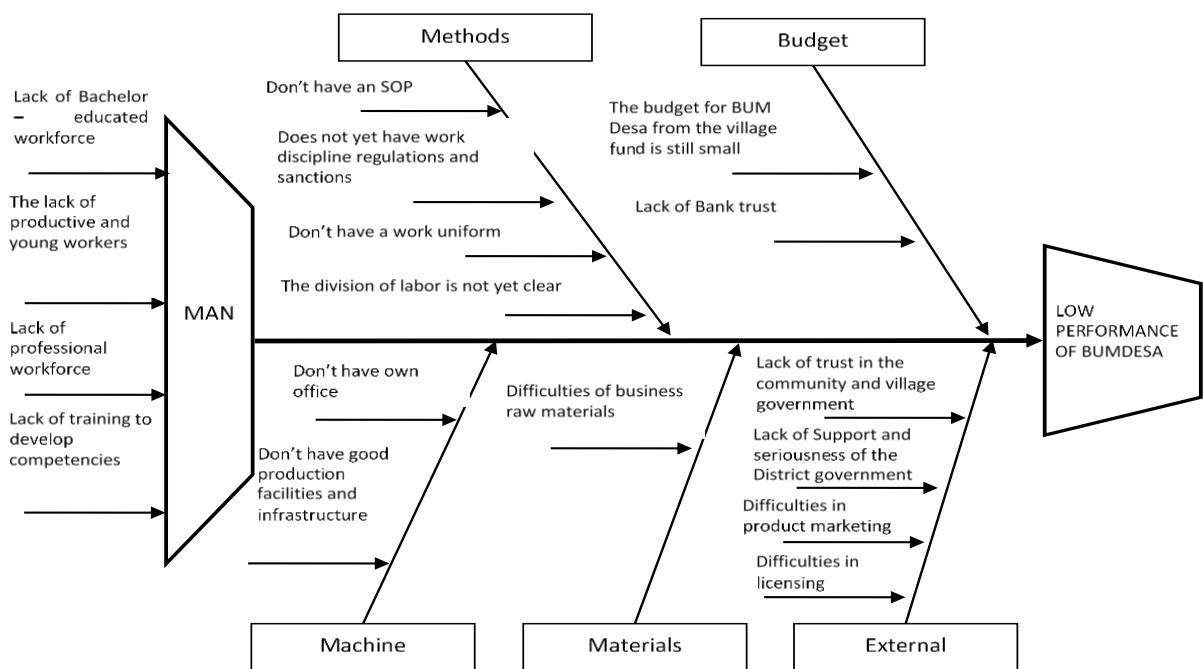


Figure 4. Fishbone Diagram of VOE Problems

Field observations indicate a prevalent discomfort among many employees when working in teams and a distaste for formal structures within VOEs. However, data analysis based on responses from VOEs employees reveals that, socially, the cognitive dimension holds the highest significance in reflecting social capital within VOEs, specifically in the West Bandung Regency. Hence, initiating knowledge-sharing mechanisms is advisable for fortifying social capital, as this is anticipated to cultivate social relationships among VOEs employees. The development programs orchestrated by the agency, designed to enhance VOEs, should be harmonized with these findings, thus ensuring tangible benefits for the progression of VOEs in the West Bandung regency.

While the impact of social capital on performance appears limited and exhibits a negative coefficient in the original sample at -0.027, it implies that striving to enhance social capital may not lead to performance improvement and might even marginally decrease performance. This phenomenon arises due to the absence of established interpersonal connections. Notably, the employees sampled in this study are relatively inexperienced in functioning within team dynamics under the guidance of formal leaders, as typified by the structure of VOEs. Consequently, addressing this predicament necessitates the implementation of training initiatives and refining business processes to facilitate improved interaction and rapport among employees within a given VOE.

Distinctly, partial human capital variables considerably impact performance, as evidenced by the original sample's measurement of 0.839 and t-statistic of 4.135. This implies that enhancing human capital encompassing areas such as communication, numeracy, interpersonal skills, and intrapersonal abilities can notably enhance employee productivity, hasten task completion, and encourage innovative problem solving. Strategies to boost human capital could involve offering pertinent technical training and facilitating internships within larger industries, providing firsthand experience for more extensive business processes.

**Table 3.** Problem Solutions to VOEs in West Bandung Regency

No.	Observed Factors	Strategies for Addressing Issues
a.	Man	<ul style="list-style-type: none"> <li>– Provide training programs to enhance the skill set of VOEs employees, particularly hands-on technical training in the field.</li> <li>– Engage the youth to participate actively in VOEs by involving them in various activities organized by VOEs.</li> </ul>
b.	Methods	<ul style="list-style-type: none"> <li>– Enhance the performance of village assistants dedicated to VOEs' growth, including streamlining administrative processes, refining SOPs, reorganizing the organizational structure, maintaining financial records, documenting production methods, and dividing managerial responsibilities within VOEs. This initiative also focuses on making VOEs more appealing to banks for financial collaboration.</li> <li>– Assist in devising efficient cash flow plans for VOEs to ensure better financial management and monitoring.</li> </ul>
c.	Materials	<ul style="list-style-type: none"> <li>– Guide VOEs in crafting business units or products that capitalize on the village's distinct strengths in West Bandung, considering potential shortages of raw materials.</li> </ul>
d.	Budget or Cost	<ul style="list-style-type: none"> <li>– Seek support from the district government, particularly regarding capital infusion through partnerships with local banks and addressing licensing-related matters.</li> </ul>
e.	Machines	<ul style="list-style-type: none"> <li>– Obtain the village government's authorization for VOEs to utilize village assets for establishing VOEs offices.</li> <li>– Explore potential funding sources to acquire upgraded production facilities.</li> </ul>
f.	External	<ul style="list-style-type: none"> <li>– As the highest local authority, the village head should continuously endorse and actively support VOEs activities.</li> <li>– Organize community markets or bazaars involving VOEs participants, rotating across different villages regularly to mutually promote VOEs products. This approach is also an effective strategy to bolster public trust in VOEs.</li> </ul>

When synthesized, social and human capital collectively explain approximately 66.5 per cent of performance variability, with the remaining 33.5 per cent attributable to external factors. This finding underscores the relevance of incorporating social and human capital as pivotal components in the model to enhance the performance of the BUM Desa in the West Bandung Regency. This finding aligns with prior research that affirms the positive and substantial role of human and social capital in business performance (Gurning & Ivanna, 2022; Khoirriini & Kartika, 2016; Prasetya et al., 2023; D. Santoso et al., 2019). Based on the results of both descriptive analysis and fishbone diagrams, it is evident that the pivotal area requiring optimization for improving VOE performance in the West Bandung Regency pertains to its human resources. This result corroborates the SEM results, affirming the direct impact of human capital on performance. Strategic steps to improve VOE human resources must be implemented to improve VOE performance. This strategy includes investments in workforce education, training, and competency development. Enhancing communication skills, numerical proficiency, intrapersonal and interpersonal abilities, and other competencies is paramount. Recognizing human capital as a cornerstone of fostering VOE performance, it is essential to acknowledge that human resources are vital for VOE, propelling its progress and evolution. This alignment is consistent with prior research emphasizing that when effectively applied, managers' knowledge and expertise significantly enhance VOE performance (Basri, et.al, 2021). Consequently, meticulous employee selection processes focusing on robust human capital are essential for VOEs. This strategy ensures that the organization benefits from a workforce with substantial competencies.

The findings of this study can resolve earlier research underscoring the relatively subdued impact of VOEs on rural economic growth. Moreover, they emphasize the significance of social capital and local village assets in augmenting VOE performance and development across Indonesia. Concurrently, regional policies should focus on intensifying community participation and enhancing VOE human resources in both management and marketing (Aritenang, 2021). This direction aligns with diverse research and critical viewpoints that collectively underline human capital's pivotal role as a fundamental organizational asset, fostering competitive advantage and asset accrual (Pasban & Nojedeh, 2016).

## CONCLUSION

This study aimed to identify problems and solutions to improve the performance of VOE and formulate a model for improving the performance of VOE. Based on the results of this study, the predominant challenge contributing to VOE's underperformance lies in its human resources domain, where human resources are the primary concern for improving the performance of VOE in the West Bandung Regency. The research findings indicate that employees believe that the structural dimension is crucial in shaping social capital. Furthermore, interpersonal skills are emphasized as the highest-valued aspect of building human capital. Regarding performance, innovation power emerged as the most favored variable. The analysis outcomes concerning social and human capital indicate a direct relationship between social and human capital. However, no direct connection was observed between social Capital and VOE performance.

Conversely, a direct link between human Capital and VOE performance was evident. The collective influence of social and human capital effectively accounts for variability in performance. Consequently, the selection of social and human capital for the enhancement model of VOE performance in the West Bandung Regency is well established.

The suggested actions encompass the support provided by the West Bandung Regency Government for VOEs, including financial assistance and marketing initiatives. The applicability of this model extends to VOE-sharing characteristics and challenges akin to those of the West Bandung Regency. Reinforcing human capital is pivotal to augmenting VOE performance. Hence, it is advisable for stakeholders, encompassing the central government, local authorities, and village government, to foster the enhancement of human capital in the VOE workforce.

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