

An Integration of BSC and AHP for creating VOE's Barriers of Entry Strategy

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Abstract

Purpose: The aim of this study is to create social constructs related to Village-owned Enterprise (VOE) performance measurement tools and establish a hierarchy of strategy formulation using the Analytical Hierarchy Process (AHP).

Research Methodology: The methods used in this research were interviews, observations, and literature reviews to gain overall information to achieve the research goals. The purposively chosen sample was PH Village and PL VOE in Yogyakarta Province. Based on the data obtained, a BSC simulation was conducted, followed by strategic analysis using AHP.

Results: This study established a social construct of VOE's performance measurement model based on the social enterprise BSC introduced by Bull (2007) and Somers (2005). A simulation was conducted by measuring the performance of the PL VOE. A total score of 96,49% was obtained for the PL performance measurement result. In addition, a strategy to create barriers to entry was established in this study. The analysis showed that the product differentiation strategy had the highest score (0,66394). To obtain the strategy, the village head, as a village vision creator, must create vision (0,47037) focusing on how to satisfy the PL's consumers (0,35131).

Limitations: The limitation of the research is the lack of an observable sample since not all the villages and VOEs have the required data for research purposes.

Contribution: The benefit of this study is that it focuses on the Yogyakarta Provincial Village Community Empowerment Service. This research can be used to formulate strategic policies for the Yogyakarta Provincial government to improve VOE performance, mainly in terms of barriers to entry creation.

Novelty: This study contributes to the strategic management of social enterprises in Indonesia, particularly VOE. The use of social BSC and AHP in one article to measure the performance of VOE and to create barriers to entry strategies is still scarce in Indonesia.

Keywords: Village-owned Enterprise, Social Enterprise, Social Enterprise Balanced Scorecard, Barrier to entry, Analytical Hierarchy Process

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1. Introduction

According to Law Number 11 of 2020 concerning Job Creation, Village-Owned Enterprises, hereinafter referred to as VOE, are legal entities as well as business entities established by villages and/or with villages to manage businesses, develop productivity and investment, utilize assets, provide services and/or other types of business for the greatest possible purpose of welfare of the village community. VOE supports rural economic activities and functions as a social and commercial institution (Widyastuti and Ambarwati 2020). VOE can be involved as a social enterprise institution established by the village

government whose activities and management are assisted by villagers in mutual cooperation according to the needs and economy of the village (Utami, Hapsari, & Kean, 2020). Social enterprises are part of the concept of social entrepreneurship, since in the context of social entrepreneurship, at least three terms are found to be interrelated: social entrepreneurship, social entrepreneurship, and social enterprise (Wibowo, 2015). The VOE has become a commercial institution that offers local resources for profit. As a social institution, the VOE provides social services for the benefit of village communities. VOE differs from that of other commercial institutions. The main feature of VOE compared to other commercial institutions is that this business entity belongs to the village and its management is carried out in mutual cooperation (Hapsari, Utami, & Kean, 2020).

From the perspective of the wider community, many people think that social entrepreneurship is just a social activity, and social entrepreneurship activities are basically business activities (Sofia, 2017). As a business, social entrepreneurship is inseparable from business rules in general, and social entrepreneurship also requires measuring tools to attract investors to develop the business. The issues of financial and institutional sustainability have always been the biggest challenge for social entrepreneurs.

Some research shows that the internal factors affecting the failure of VOEs vary, such as business motivation, the education of VOE employees, the ages of VOE employees, work experience, and leadership styles (Aprillia, Cahyono, & Nastiti, 2021). On the other hand, the predictors affecting the success of VOE include communication, accounting information systems, human resources, leadership styles, motivation, work environment, salary, skills, organizational performance, commitment, organizational culture, training, and work satisfaction (Aprillia et al., 2021). Meanwhile, other scholars have mentioned external factors affecting the decrease in VOE performance, such as customer preferences, substitution products, and competition among VOEs (Dana & Suci, 2021). To be more sustainable, VOE should manage its business internally and externally. VOE may create barriers to entry to protect its business from competitors and conduct performance measurements assessing internal business.

There is a lack of research evaluating the performance of social enterprises including VOE. Previous studies have focused only on defining the concept of social enterprises for policy guidance (Y. T. Lee & Moon, 2008). Currently, VOE success is measured solely based on financial performance, which is an easy but not comprehensive measurement. It is crucial for social enterprises to develop objective performance measures in order to evaluate their success. This will help them gain a competitive advantage by providing social services and creating jobs for the community. In addition, studies related to VOE barriers to entry into the Indonesian context are scarce. The focus of this research is mainly on fixing the management context rather than creating barriers to entry.

The aims of this study were twofold. First, it seeks to construct a BSC framework that can assess the effectiveness of social enterprises and offer a strategic perspective on their operations. Second, it proposes metrics to gauge social enterprises' performance and facilitate their expansion. Additionally, the study goal is to establish a strategy hierarchy for devising VOE strategies that can create barriers to entry into VOEs.

1.1. Research Questions

Based on previous information, this study focused on answering the following research questions:

1. Since the measurement tools for VOE performance are yet to be agreed upon by scholars or created by the government, this study proposes tools to measure VOE performance.
2. Based on the first research question, the tools proposed in this study must be tested; therefore, the implementation of the tools can be clearly simulated.
3. The barriers to entry as one of the VOE strategies need to be created; therefore, a hierarchy of strategy formulation on how the barriers are created needs to be established.

1.2. Research Goals

This study is aimed to:

1. Creating a social construct for VOE performance measurement tools based on existing theories of social enterprise performance measurement.;
2. Testing the VOE Performance Measurement Tool
3. Establishing a hierarchy of strategy formulation to create barriers to entry.

2. Literature review

2.1. Village-owned Enterprise (VOE)

According to Law Number 6 of 2014, a village is a legally recognized unit with defined boundaries that have the power to autonomously govern and manage its local community's interests through community initiatives and local wisdom, as recognized within the Indonesian government system. As a result, villages are permitted to establish village-owned enterprises (VOE) in accordance with these regulations, which can be utilized to discover potential economic opportunities within the village, increase local income, and provide a platform for community-based economic activities. The VOE is a legally recognized entity that is managed jointly by the community and village government to strengthen the local economy by focusing on the needs and potential that exist within the village (Dewi & Kurniawan, 2018).

The establishment of VOE aims to integrate all activities in the economic sector with public services managed by the village government (Posi & Putra, 2021). As social organizations has an important role in the provision of social services for village communities. In its management, VOE emphasizes the efficiency and effectiveness of the use of managed resources and remains guided by the principle of accountability (Pramita, 2018). VOE is expected to realize social democracy in the village by increasing village community empowerment through the involvement of all existing village community components. In addition, VOE is expected to receive full support from the village government to realize economic development in the village (Irawati & Martanti, 2018).

A VOE can be categorized as economically successful if it succeeds in making a financial contribution to the village government in the form of original village income. Many factors have contributed to the success of VOE, although if we look at it as a reference, international published sources of articles discussing VOE are very scarce. Therefore, in this study, we use a reference approach that discusses the factors that can influence the success of small and medium scale businesses (MSMEs). In several studies, VOE often has small and medium business units owned by the Village government, even in several studies, VOE and MSME business models are aligned and synergized to increase the income of village communities (Djarmiko & Cahyadi, 2020; Harefa, 2021; Nugroho, 2018; Syafri, Prabowo, Nur, & Muafi, 2021). There are several factors that influence the success of small and medium enterprises, namely business characteristics and contextual variables such as marketing, technology, access to information, social networks, legality, access to capital, government support, and business plans (Storey, 1994).

2.2. Social Enterprises

The concept of Social Enterprise has long been seen as key to economic and social development, especially in countries that initially adopted the concept of Social Enterprise such as the UK and India. The concept of Social Enterprises then over time can continue to develop with variations around the world (Del Giudice, Garcia-Perez, Scuotto, & Orlando, 2019). A social Enterprise can be defined as an organization that focuses on obtaining social, environmental, and financial benefits. The financial profits obtained are then reused for investment to achieve social and environmental benefits (Sepulveda, 2015). Some literature on Social Enterprise summarizes Social Enterprise activities that integrate economic and social goals such as activities related to low-income populations, people who have low education, health services, ethical-based agriculture and other things (Santos, Pache, & Birkholz, 2015).

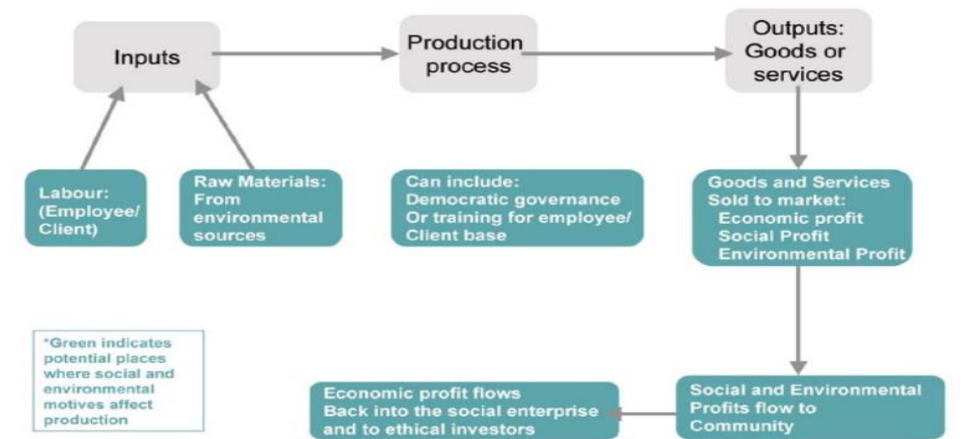


Figure 1. Process of Social Enterprise Value Creation (Somers, 2005)

The diagram shown in Figure 1 illustrates the process of generating value by Social Enterprises. Life focused on creating value inspires hope, fosters collaborative work, and helps people realize their highest potential (Kuo, Wood, & Williams, 2021). This process begins with labor and raw materials as inputs. The production process, which incorporates democratic governance and skilled resources, is then initiated. Finally, the organization delivers goods and/or services to customers to achieve financial gains. These economic profits are subsequently utilized to promote social and environmental sustainability through activities that prioritize these goals (Somers, 2005).

2.3. Balance Scorecard

The term "performance of a company" refers to the results or output generated by a company during a specific timeframe, which are measured against pre-established benchmarks or objectives. (Kaplan & Norton, 2000). Contingency theorists assert that organizational performance is influenced by both internal and external variables, and optimal performance is achieved when there is a proper alignment between organizational design and environmental factors (Eton, Fabian, & Benard, 2022). Competitive advantage significantly and positively impacts organizational performance (Mitiku & Nega, 2021). Organizational performance measures are established by the organization and its stakeholders to attain its objectives or targets (Amegayibor, 2021). The use of tools to measure performance can assist companies in assessing how their process resources are allocated, enabling them to identify opportunities for more effective management and distribution across relevant channels (A. H. Lee, Chen, & Chang, 2008).

Kaplan and Norton (2000) introduced the concept of a "Balanced scorecard (BSC)" (BSC) as the basis for a strategic management system. This approach not only covers financial and non-financial aspects but also incorporates business strategy into the management system (Kaplan & Norton, 2000). By adopting the Balanced Scorecard methodology, an organization's focus on learning can shift towards enhancing strategic capabilities and guiding initiatives for developing human resources with the ultimate objective of accomplishing strategic objectives (Upadhyay, 2012). The profitability component, which is driven by customer satisfaction, represents the financial perspective of a balanced scorecard. Furthermore, signalling theory relates to this profitability perspective (Kusumawati, 2020).

The Balanced Scorecard forms a framework consisting of four perspectives: Financial, Customer, Internal Business Process, and Learning and Growth. The financial perspective describes a strategy for determining how we satisfy our shareholders. The customer perspective depicts a strategy to determine how customers are satisfied. Meanwhile, internal business process describes strategies that will be used in business processes to obtain good results. The last perspective, the learning and growth perspective, captures how to maintain the ability to change and develop (Kaplan and Norton 2000).

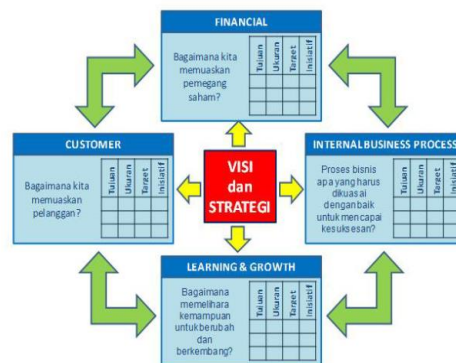


Figure 2. Four Perspectives of Balanced Scorecard (Kaplan & Norton, 2000)

2.4. Balance Scorecard for Social Enterprises

The Balanced Scorecard (BSC) concept has been applied and modified in various industries, including its use in assessing the performance of social enterprises. Somers (2005) and Bull (2007) are among the individuals who extended the application of the BSC to social enterprises. Therefore, BSC has been adapted for use in several industries, including the measurement of social enterprise performance.

To change Kaplan and Norton's original Balanced Scorecard, three changes were introduced by Somers (2005): an additional layer was added in which social objectives were articulated from a financial perspective, the financial perspective expanded to focus on sustainability, and the customer perspective was broadened to capture a wider range of stakeholder groups. The model described above illustrates that social enterprises begin by outlining their desired social outcomes before considering different perspectives, with each circle representing a specific goal from a financial sustainability perspective. The Social Enterprises Balanced Scorecard may seem complicated because social enterprises have a hybrid nature and require sophisticated management systems. The importance of considering different stakeholders is demonstrated by the stakeholder perspective, which has expanded beyond customers in the original model to differentiate between those who pay for services and those who benefit from them, including donors, grant funders, employees, and society (Somers, 2005).

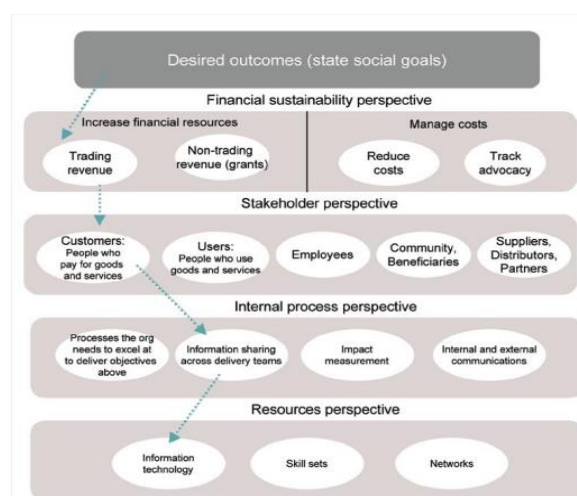


Figure 3. BSC Model for Social Enterprise (Somers, 2005)

The next version of the Social Enterprises version of the Balanced Scorecard concept came from Bull (2007). Bull (2007) developed five perspectives to compile the BSC concept: Return, A Learning Organization, The Stakeholder Environment, Internal Activities, and vision (Bull, 2007).



Figure 4. BSC Model for Social Enterprise (Bull, 2007)

“Return: The Multi-Bottom Line” perspective replaced to the BSC original concept called the financial perspective. The motivation or return on business and investment by the private sector is accounted for in various ways, such as return on investment (ROI), market share, or shareholder value, but fundamentally in financial terms 'profit margin'. In social entrepreneurship, the objectives and purposes of conducting business are dissimilar. The principles of maximizing profits and exploiting the market are substituted by tactics that provide social or environmental advantages. As a result, social enterprises are established to offer aid and support to various social and environmental issues that contribute to society's welfare; thus, the concept of the triple bottom line (Bull, 2007).

The essence of this section asks the organization, 'To achieve our vision, how can we show our stakeholders that we can deliver what we say we can?' Their organizational performance includes social, environmental, and financial sustainability; budget and expenditure management; performance indicators that combine social and economic accountability; and a systematic approach to articulating social accounting (Bull, 2007).

A Learning Organization is a perspective that focuses on social capital and organizational knowledge. The main objective of this perspective is to address an issue similar to that of the BSC, such as the question, "How can we maintain our capacity to adapt and develop in order to achieve our vision?". The Learning Organization aims to evaluate its ability to utilize knowledge and learning opportunities, which can be challenging to quantify. This assessment involves examining factors such as learning culture, creativity, collaborative decision making, teamwork, leadership, and continuous improvement. These factors are crucial, based on an analysis of the interview data (Bull, 2007).

The Stakeholder Environment perspective replaced the 'customer' perspective at BSC, since the term 'stakeholder' is more representative of a social enterprise that serves and satisfies many parties. This section includes customers, end-users, funders, communities, and society as a whole. The essence of this section is asking the organization, 'To achieve our vision, do we really know our stakeholders and how we appear to them?'. The critical factors extracted from the analysis of the interview data were stakeholder awareness, competitor identification and awareness, image and identity, promotional activities, marketing budget, and, most importantly, evaluation of the effectiveness of each of these practices (Bull, 2007).

Internal Activities are a slightly modified part of the BSC's 'internal business processes.' The question it is trying to answer is: 'To achieve the vision of the organization, do we have the right business practices and systems in place?'. This section addresses work practices, organizational structures, and

systems. The critical issues for social enterprise managers are internal structure, managing internal communications, quality, management systems, flexibility, and adaptability (Bull, 2007).

The Visioning Perspective is the last part of the model, which brings together the aspects of the tool into a business vision. A critical issue for social enterprise managers relates to how they engage strategically with business tools such as missions and business plans, and ultimately how these plans are communicated to various stakeholders (Bull, 2007). Furthermore, this study combines the concept of the social enterprise performance measurement model developed by Somers (2005) and Bull (2007).

3. Methodology

This research utilizes a qualitative methodology, combining a literature review and interviews to develop a model for measuring VOE performance. The approach involves gathering and interpreting the perspectives and insights of individuals or groups regarding social and humanitarian concerns. Data collection techniques for performance measurement experiments carried out in this study were interviews, documentation studies, and observations or a combination of the three, which is called triangulation. Key informants were determined by purposive sampling with the condition that they met the established criteria to obtain precise and accurate information (Sweetman, Badiee, & Creswell, 2010).

The research subjects for the performance measurement experiments are several stakeholders related to BUMDesa performance activities. The list of stakeholders who are resource persons in this study is shown in Table

Table 1. Samples List

No	Name	Institution	Roles
1	WH	Village administrations of PH	Village Head
2	RK	PL VOE	KPS Manager
3	NZ	PL VOE	KM Manager
4	AR	PL VOE	Head of VOE

The data obtained from the interviews were then entered into the social enterprise BSC and to establish a strategy for creating barriers to entry.

4. Results and discussions

4.1. Construction of the VOE's Performance Measurement Model

The construction of the BUMDesa performance measurement model in this study combines the concepts of the social enterprise performance measurement model developed by Somers (2005) and Bull (2007). The development of the BSC as a BUMDesa performance measurement concept is translated into five perspectives, where four perspectives are taken from Somer's concept (2005) and one perspective (visioning) from Bull (2007) is added. These five perspectives include financial sustainability, stakeholders, internal processes, resources, and vision.

Financial sustainability perspective			
Increase Financial Resource		Manage Costs	
Trading Revenue	Non-Trading Revenue (grants)	Reduce Costs	Track Advocacy

Stakeholder Perspective				
Customers	Users	Employees	Community, Beneficiaries	Suppliers, Distributors, Partners

Internal Process Perspective			
Processes the org needs to excel at to deliver objectives above	Information sharing across delivery teams	Impact measurement	Internal and external communications

Resources perspective		
Information technology	Skill sets	Networks

Visioning			
Business Plans	Mission Statements	Communication	Balance

and Somers (2005)Figure 5. Construction of the VOE's Performance Measurement Model
Created from Bull (2007)

From the perspective of financial sustainability, there are two major perspectives: financial increase and cost management. In financial increase, there is a perspective of trading revenue and non-trading revenue (grants). Furthermore, in terms of cost management, there are reduced costs and track advocacy. Meanwhile, from the stakeholder's perspective, there are five parties that must be considered: customers, users, employees, the community, and partners. From the internal process perspective, there are processes the organization needs to excel at to deliver the objectives above: information sharing across delivery teams, impact measurement, and internal–external communications. From the resource perspective, there are three aspects that need attention: information technology, skill sets, and networks. From this perspective, there are four aspects that need attention: Business Plans, Mission Statements, Communication, and Balance.

4.2. Construction of the VOE's Performance Measurement Model

The case study took place in PL VOE, PH Village, in November 2022. The data gathered from the samples were then analyzed and used in the model. The results are as follows:

Table 2. Financial Sustainability Perspective (based on financial report data analysis)

Perspective and strategic goals	Outcome Indicator	Units	Realization	Target	Performance	Indicator weight	Performance Score
Financial Sustainability Perspective		%					70,1047313
Increase financial resources							
Financial Ratio	Current ratio	%	92	200	0,46	0,16667	0,0766682
	Net Profit Margin	%	11	10	1,1	0,16667	0,183337
	Cash ratio	%	48	100	0,48	0,16667	0,0800016
Profit of all business units	Net profit	%	1,036784047	5		0,25	
	Net profit KPS	%	-22566040			12,5	
	Net profit KM	%	30042368			12,5	
	Net profit TR	%	69336864			12,5	
	Net profit PSD	%	-23284000			12,5	
Manage cost							
Cost/revenues of all business units	Cost/revenue of KPS	%	0,998805869	0,65	0,650777113	0,125	0,081347139
	Cost/revenue of KM	%	0,824721716	0,65	0,78814464	0,125	0,09851808
	Cost/revenue PSD	%	0,978041731	0,65	0,664593319	0,125	0,083074165
	Cost/revenue TR	%	0,828167779	0,65	0,784865116	0,125	0,098108139
The perspective performance and perspective contribution						1,00001	0,701054323

Based on Table 2, the overall performance score for the financial sustainability perspective is 0,70105 or 70,105%. The perspective scores were measured based on an increase in financial resources and cost management. Both financial resources and cost management are weighted fairly 50% each, and their sum is 70,104%. To measure cost management, cost is divided by the revenue from each business unit owned by the VOE. In this case, the cost/revenue for KPS was 8,135%, for KM was 9,85%, for PSD was 8,31%, and for TR was 9,811%. In addition, to obtain financial resource numbers, financial ratios, including the current ratio, net profit margin, and cash ratio, were calculated. The results for the current ratio is 7,67%, net profit margin is 18,33%, and cash ratio is 8%, respectively.

Table 3. Stakeholders Perspective (based on survey data analysis)

Perspective and strategic goals	Outcome Indicator	Units	Realization	Target	Performance	Indicator weight	Performance Score
Stakeholders perspective		%					147,8096038
Customer							
Customer satisfaction	The level of customer satisfaction	Score	3,9	5	0,78	0,5	0,39
Village Government							
Village Income from VOE	Village Income from VOE	IDR	128.940.280	140000000	0,921002	0,2	0,1842004
Community Beneficiaries							
Number of employees from Villages	Number of employees from Villages	ORG	90	99	0,909090909	0,2	0,181818182
Employees							
Employee Income/ person/ month	VOE Employee Income	IDR/ORG/Month	13292836,02	1.840.915,53	7,220774558	0,1	0,722077456
The perspective performance and perspective contribution						1	1,478096038

Based on Table 3, the stakeholders' perspective was built from the point of view of customer satisfaction, village income, community beneficiaries, and employees. From the customer's perspective, customer satisfaction was measured by distributing questionnaires to customers. The result of customer satisfaction is 78% and contributes to the overall score of the stakeholder's perspective by 39%. Customer satisfaction was given a weight indicator of 50% because, according to the interviews, customer satisfaction significantly affects business. Meanwhile, the indicator score of village income obtained from VOE is 92,1% (comes from the percentage of realization compared to the target) and contribute to all perspective score is 18,42%. The community beneficiary indicator was measured based on the number of local employees working in the VOE. From the simulation, the score from the perspective 90,9% of the target. The last indicator is the employee salary that contributes to 72% and 21% of the stakeholder perspective; however, if compared to the target, the VOE's employee salary is far beyond the target so that it contributes more than 100% compared to the target.

Table 4. Internal Process Perspective (based on interviews data analysis)

Perspective and strategic goals	Outcome Indicator	Units	Realization	Target	Performance	Indicator weight	Performance Score
Internal process perspective							80,3840625
Innovation of business unit	The number of the new business unit 2022	Project	1	1	1	0,33	0,33
Increased business unit activity	The number of KPS customer	Ton/day	6	30	0,2	0,0825	0,0165
	The number of KM Customer	ORG/Month	52,10875	100	0,5210875	0,0825	0,042989719
	The number of TR Customer	Event/Month	5,916666667	10	0,591666667	0,0825	0,0488125
	The number of PSD	download	1000	3000	0,333333333	0,0825	0,0275
Internal and external communication	Number of internal communication monthly	Meeting/ month	3	3	1	0,165	0,165
	Number of external communication monthly	Meeting/ month	10	10	1	0,165	0,165
The perspective performance and perspective contribution							0,99

According to Table 4, the overall score of the internal process perspective was 80,38%. The perspectives were measured based on several indicators, such as business unit innovation, number of business unit activities, and internal and external communication. The business unit innovation indicator was measured by counting the number of new business units in the VOE, which contributed 33% of the internal perspective score. Internal and external communication were measured by counting the number of internal and external meetings of the VOE. The indicator was 16,5% for both internal and external communication.

Table 5. Resources and Visioning Perspective (based on interviews data analysis)

Perspective and strategic goals	Outcome Indicator	Units	Realization	Target	Performance	Indicator weight	Performance Score
Resources perspective							100
Networks	The number of networks	networks	>10	>10	1	0,25	0,25
Skill sets	The unique skills	skills	5	5	1	0,25	0,25
Information technology	The apps	apps	2	2	1	0,25	0,25
Resources	The number of resources	resources	4	4	1	0,25	0,25
The perspective performance and perspective contribution							1
Visioning							84
The vision perspective	The level of vision perspective	Score	4,2	5	0,84	1	0,84
Total of Maximum Score							4,99001
Performance VOE Pangung Lestari							96,4918423

Based on Table 5, the resource perspective was measured based on several indicators, such as VOE networks, skill sets, information technology used by VOE, and the number of resources in the village. By assigning the weight for each indicator fairly, the score result for the resource perspective is 25%. In addition, the visioning perspective was measured by distributing questionnaires to the village leader and VOE. The result for the visioning perspective was 84%. Therefore, the sum of the results for all perspectives showed that the performance of the PL VOE was 96,49%.

4.3. Strategy Making to VOE's Barriers to Entry: an AHP

Based on the Balanced Scorecard simulation, a strategy formulation to create a barrier to entry for the business unit can be established, as described in Table 7. The hierarchy of strategy formulation is then calculated with the Superdecision application so that the score of each level of hierarchy can be measured, as described in Table 6.

Tabel 6. Priorities Score of Strategy Formulation (based on AHP analysis)

Level of Hierarchy	Nodes	Priorities Score
Level 1: Goal	Optimizing the Business Unit	0
Level 2: Actor	Head of Village	0,46101

Level 3: Perspectives	Visioning	0,47037
Level 4: Criteria	Customer satisfaction	0,35131
Level 5: Strategy	Product differentiation strategy	0,66394

Based on Table 6 and Figure 6, the strategy for building barriers to entry was chosen to create a product differentiation strategy to achieve customer satisfaction. A visioning perspective from the village head is required to achieve customer satisfaction. Based on this calculation, the ideas and roles of the village head are important for creating barriers to entry into the VOE.

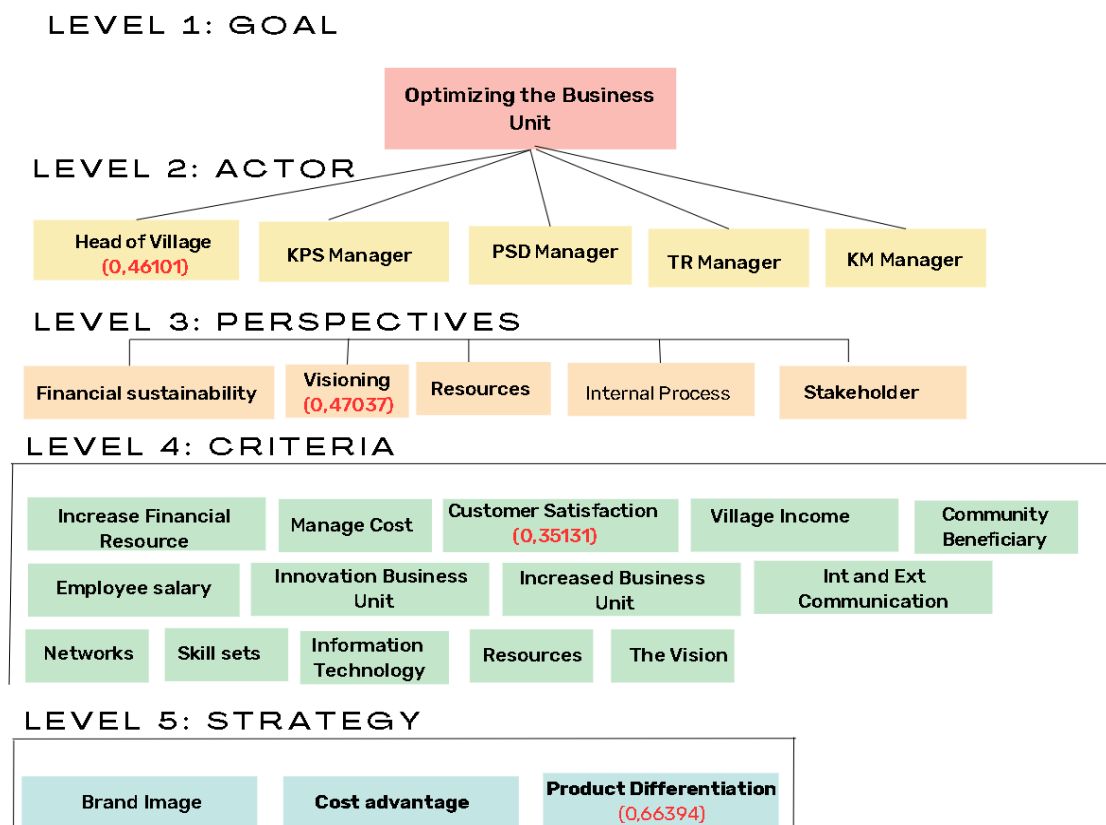


Figure 6. Hierarchy of Strategy Formulation with AHP (based on AHP analysis)

5. Conclusion

5.1. Conclusion

The primary aim of this research is to establish a social construct for evaluating VOE's relevant performance and conduct experiments to measure VOE's performance on particular objects. BSC's development as a VOE performance measurement concept is divided into five perspectives, four of which are derived from Somer's (2005) concept, and one perspective (visioning) was added from Bull (2007). These five perspectives are financial sustainability, stakeholders, internal processes, resources, and vision. The simulation of the Social Enterprise BSC generated in this study to measure VOE performance was accomplished in PH Village and PL VOE. This study also developed a strategy to create VOE barriers to entry using AHP. However, this research requires improvements to reconfirm the strategy to create the VOE's barrier to entry. The inconsistency challenge in AHP should be reduced by adding the number of samples. In addition, the hierarchy of strategy based on social enterprise BSC should be further studied to determine the definitive number of each node in every cluster made in the structure.

5.2. Limitation

The implementation of BSC for social enterprises is limited to use in the VOE with good financial reports since the financial sustainability perspective is quite significant for performance measurement. The fact is that, the VOEs in Indonesia are still struggling mainly with the financial report and accountability.

5.3. Suggestion

Future studies should address the limitations of the implementation of BSC for social enterprises to measure VOE performance, particularly in financial-related administration. There should be more practical and easier ways to measure the VOEs performance in Indonesia. In addition, the barriers to entry strategies should be further studied in order to strengthen VOE performance and sustainability in Indonesia.

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