

Same Old Story: The Role of Capital and Labor to SME Performance

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Abstract: This study has developed an analysis model of factors that affect the MSME business performance. The subject of this study was the fish MSME cluster in Sragen Regency. The agricultural sector MSME cluster is a strategic economic sector because it is related to food security in Indonesia. Apart from that, the fish MSME cluster in Sragen Regency is one of the MSME clusters that has the potential to be developed into a source of economic growth in the district. This study has examined the effect of capital and labor management on business performance in fisheries MSMEs. This study used a quantitative design by developing a multivariate statistical model with 2 independent variables, namely the number of workers and production costs, as well as one independent variable, namely the performance of MSME businesses as measured by production results or harvests, sales turnover, profits, and MSME assets. This study was undertaken on the fisheries MSME cluster in Sragen using the census sampling method with the same number of respondents as the population, namely 68 fisheries MSMEs. The finding has indicated that capital management as measured by production costs and number of workers has varying influences on business performance. Management of production costs has a positive effect on harvest results, sales, profits and increase in MSME business assets, while the number of workers only affects harvest results and business profits.

Keywords: Working Capital, Number of Workers, Business Performance, Msme Cluster.

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I. INTRODUCTION

Cluster development in the industrial development strategy is a strategic issue in terms of economic policy and business development for MSMEs. The cluster approach is a way to optimize the use of limited resources from MSMEs [1]. This MSME cluster development pattern is the basis for development policy for industry for the reason of optimizing the use of government budgets used to develop industry [2].

Morgan and Hunt [3] have asserted that industrial development is no longer related to competition and interaction between companies, but rather interaction between business networks. Industry develops into a pattern of interaction between company and company, company and supplier and company and consumer.

Several regional governments in Indonesia have used this policy of building MSME clusters to encourage industrial development. Regional governments formulate cluster-based industrial policies based on the assumption that by using a

cluster approach, the use of the APBD budget will be more optimal.

The development of industrial clusters in terms of theoretical concepts began with the development of the theory of competitive advantage proposed by Porter [4]. Furthermore, Porter [5] found that the competitive advantage of an industry appears to arise from industries that have the same geographical location. This concept is the basis of industrial cluster theory. Porter [6] suggests that clusters influence industrial competitiveness in three ways, namely:

- Clusters increase the productivity of companies in the same geographic location because there is a mechanism for using the same resources.
- Clusters provide direction and encouragement for companies in the cluster to innovate in order to maintain the company's business performance in the future.
- Clusters accelerate the expansion and development of new businesses within the cluster that support the development of the cluster.

There is a theoretical gap in research on industrial clusters. Porter [6] identified that clusters strengthen industrial competitiveness, however, the factors that become sources of competitiveness give rise to debate. Begonja et al., [7] stated that innovation is the key to competitiveness in the MSME cluster. Kato et al., [8] explained that HR is a source of innovation in MSMEs. The flexible and multi-skilled characteristics of HR in MSMEs guarantee business sustainability and business performance [9], [10], [11]. In the context of MSMEs in Indonesia, the quality of human resources plays an important role in business development, it's just that the majority of MSMEs in Indonesia do not have quality human resources [12], [13].

This study has developed an analysis model of factors that influence MSME business performance. The subject of this study was the fish MSME cluster in Sragen Regency. The MSME cluster in the agricultural sector is a strategic economic sector because it is related to food security in Indonesia. Apart from that, the fish MSME cluster in Sragen Regency is one of the MSME clusters that has the potential to be developed into a source of economic growth in the district. Several factors that are thought to influence the performance of fisheries MSME businesses in Sragen Regency are human resource factors and cost efficiency. This research focuses on analyzing the factors that influence the business performance of MSME clusters. The main problem in this study is related to the effect of functional factors in the fields of management and business or MSME business strategies that can encourage improvements in MSME business performance. The problem formulation in this research is:

- Does human resource strategy affect MSME business performance?
- Does cost strategy affect MSME business performance?

This study has developed the model of Cakir and Nolan [14], Luna and Wilson [15] and Karaev et al. [1], which analyzes several factors that influence the business performance of MSME companies in a cluster. The objectives of this research are:

- Analyze the effect of human resource strategy on MSME business performance.
- Analyze the effect of cost strategy on MSME business performance.

II. LITERATURE REVIEW

➤ *The Concept of MSME Cluster Development*

Cluster analysis in industry is a strategic management theory proposed by Porter (1990). According to Porter (1990), a cluster is a geographical concentration of interconnected companies and institutions in a particular sector. Clusters encourage industries to compete with each other. Apart from industry, the cluster also includes government and industry which provides service support such as training, education, information, research and technology support. In conducting industry analysis, Porter (1985; 1990) suggested a framework called The Diamond Models. This framework states that an industry consists of several supporting aspects. namely: (1) input factors (factor/input conditions), (2) demand conditions,

(3) supporting and related industries (related and supporting industries), and (4) company and competitor strategies (context for firm and strategy).

- *The Following is an Explanation of Porter's Diamond Model:*

✓ *Input Factors*

The input factors in Porter's analysis are variables that already exist and are owned by an industrial cluster such as human resources, capital resources, physical infrastructure, information infrastructure, science infrastructure. and technology (scientific and technological infrastructure), administrative infrastructure, and natural resources. The higher the quality of these input factors, the greater the opportunity for industry to increase competitiveness and productivity.

✓ *Demand Conditions*

Demand conditions according to the diamond model are associated with sophisticated and demanding local customers. The more advanced a society is and the more demanding domestic customers are, the industry will always strive to improve product quality or innovate to meet the high demands of local customers. However, with globalization, demand does not only come from local sources but also comes from abroad.

✓ *Supporting and Related Industries*

The existence of supporting and related industries will increase efficiency and synergy in Clusters. Synergy and efficiency can be created, especially in transaction costs, sharing technology, information and certain skills that can be utilized by other industries or companies. Another benefit of supporting and related industries is that they will create increased competitiveness and productivity.

✓ *Company and Competitor Strategies*

The strategy of companies and competitors in the diamond model is also important because this condition will motivate companies or industries to always improve the quality of the products they produce and always look for new innovations. With healthy competition, companies will always look for new suitable strategies and strive to always increase efficiency.

- Smith [16] suggests that there are three important dimensions related to an industrial cluster, namely:

- ✓ Geographical limitations. At the beginning of its development, Porter [5], [6] only divided industrial clusters into two geographical boundaries, namely national and international. However, it was then realized that regional and provincial/state-based clusters were also needed. The geographic coverage of a cluster is influenced by the ability to share information, resources and knowledge.
- ✓ Definition of industry size. In an industrial cluster, the flow of goods and services as well as the value chain of an industry is very necessary. Basically, an industrial cluster is connected to the same flow of goods and services.
- ✓ Competitive advantage. Basically, the aim of preparing an industrial cluster is to encourage the creation of

competitive advantages for each company in the industrial cluster. Some of the competitive advantages that can be built from an industrial cluster are the development of an entrepreneurial spirit, economies of scale and development of social infrastructure.

- Mitsui [17] has argued that in determining small and medium enterprise clusters you must pay attention to several things, namely:
 - ✓ The concept of supporting institutions must be understood as a good opportunity. This means that an industrial cluster cannot be separated from the support of supporting institutions, namely supplier networks, buyer groups and the government.
 - ✓ Exploit various types of potential needs in cluster development or research and development activities. In accordance with the various levels of growth of an industrial cluster, industrial clusters also have different potential needs. To overcome this problem, it is necessary to carry out research and development activities to explore potential as well as find solutions to several existing problems.
 - ✓ Maintain core technology competencies and apply them in business practices. One of the strengths of an industry is mastery of core competencies. Mastery of core competencies means a competitive advantage for the industry concerned. Industrial clusters should support mastery of core competencies for companies in the cluster.
 - ✓ Unexpected business challenges. Industrial clusters must be able to anticipate unexpected conditions, such as a decrease in demand. This was experienced by the furniture industry cluster in Central Java after the events of September 11 2001 in the US.
 - ✓ We do not need to wait for technological overflow from universities or research institutions. SME industrial clusters usually cannot afford expensive technology developed by universities or research institutions, so they must take an active role in encouraging the creation of cheaper technology. This is of course done in collaboration with universities or non-profit research institutions.
 - ✓ Strong management control of product development and marketing processes. One of the weaknesses of MSMEs is the tendency to ignore product development and marketing issues. An industrial cluster must be able to create uniform quality standards for all companies originating from that industrial cluster.
 - ✓ Collective cooperation in technology development. Industrial clusters can use other methods to develop technology, namely a collective research and development process.
 - ✓ Mistakes that could result in reputation damage. Regarding the quality standard points above, ensuring that there are no errors or complaints from buyers is very important because this is related to the reputation of an industrial cluster.

➤ *Capital Management Strategy; Impact on MSME Business Performance*

Wilson and Smith [18] have explained that cost efficiency is one way for companies to strengthen competitiveness. MSMEs in Indonesia have problems in

terms of production cost efficiency. Suranto et al. [19], found in their research on MSME clusters in Indonesia that the cost aspect could be a competitive advantage for MSMEs. In this research, MSMEs in the batik, convection and furniture clusters were unable to optimize financial performance because there were production cost inefficiencies. Cost efficiency in MSMEs usually occurs due to their inability to identify the cost structure of each product they produce. For example, it is difficult to determine labor costs, because the majority of workers in MSMEs are family members, or owners who are also the main workforce or experts in the company. Cost efficiency is also determined by the ability to obtain and manage operational capital [20]. The real form of cost efficiency in MSME operations is working capital management.

H1 Capital management has a positive effect on MSME business performance.

➤ *Labor Management in Improving MSME Performance*

Kato et al. [8] stated that human resource factors determine the performance of MSME companies. In fact, with limited resources in the form of capital and market networks, human resources are the mainstay. On the other hand, Tambunan [21] and Bager et al. [22] stated that human resources who work in MSMEs generally have low education and skills. This then becomes an argument that in the context of fisheries MSMEs the approach used is workers as labor and not as human resources. MSMEs are generally unattractive for quality human resources due to low wage levels. However, there is a fundamental paradox in the condition of human resources in MSMEs, namely that these business organizations become a vehicle for quality human resources who start their careers as entrepreneurs, even though they are not the goal for employees or workers. This means that the owners of MSMEs are quality human resources and in general in this business organization the owner is also the manager or main workforce [7], [23], [24].

H2 Workforce management strategies in MSMEs have a positive effect on MSME business performance.

III. RESEARCH METHOD

➤ *Research Design*

This study used a quantitative design with a multivariate statistical method approach. This study analyzed causal relationships between variables using data obtained from a survey of the MSME cluster in Sragen Regency. Quantitative design has captured the general condition of research subjects more quickly, thus, conclusions and recommendations can be determined immediately. The disadvantage of quantitative design is that detailed information about a phenomenon is difficult to obtain.

➤ *Population and Sample*

The population of this study was the fish farming MSME cluster in Sragen. This cluster was chosen because the MSME cluster was a priority cluster for the Sragen Regency government to develop as one of the foundations of the local economy. The choice of examining on the conditions of the fisheries MSME cluster is also based on the fact that the

agriculture and fisheries sectors are primary sectors that support the economy for providing raw materials for agriculture-based industries and are also important sectors for building food security. Regarding to data from the Department of Agriculture and Food Security and the Department of Cooperatives and Micro, Small and Medium Enterprises (UMKM) of Sragen Regency, there are 68 fisheries MSMEs in the fisheries cluster. The population of this study was fisheries MSMEs in Sragen Regency. The sample was all members of the population so that the sampling method used was the census method.

➤ Variable and Measurement

This research used 3 variables, consisting of 2 independent variables and 1 dependent variable. The independent variables in this study and their measurements were:

- HR management strategy as measured by the number of workers owned by fisheries MSMEs. Measurement with ratio data.
- Cost efficiency strategy for fishery MSMEs as measured by the production costs of fishery MSMEs. Measurement with ratio data.
- MSME business performance is measured by production output or number of harvests, sales turnover and MSME assets in a certain period. In this research, the periodization chosen is per year. Measurement with ratio data.

➤ Conceptual Model

This study is a study with a multivariate statistical approach. This research model was developed from Cakir and Nolan [14], Luna and Wilson [15] and Karaev et al. [1]. Figure 1 shows the framework of thinking and relationships between variables in this research. Dealing with Figure 1, the MSME business performance variable is explained by 2 independent variables, namely HR management strategy and cost efficiency strategy.

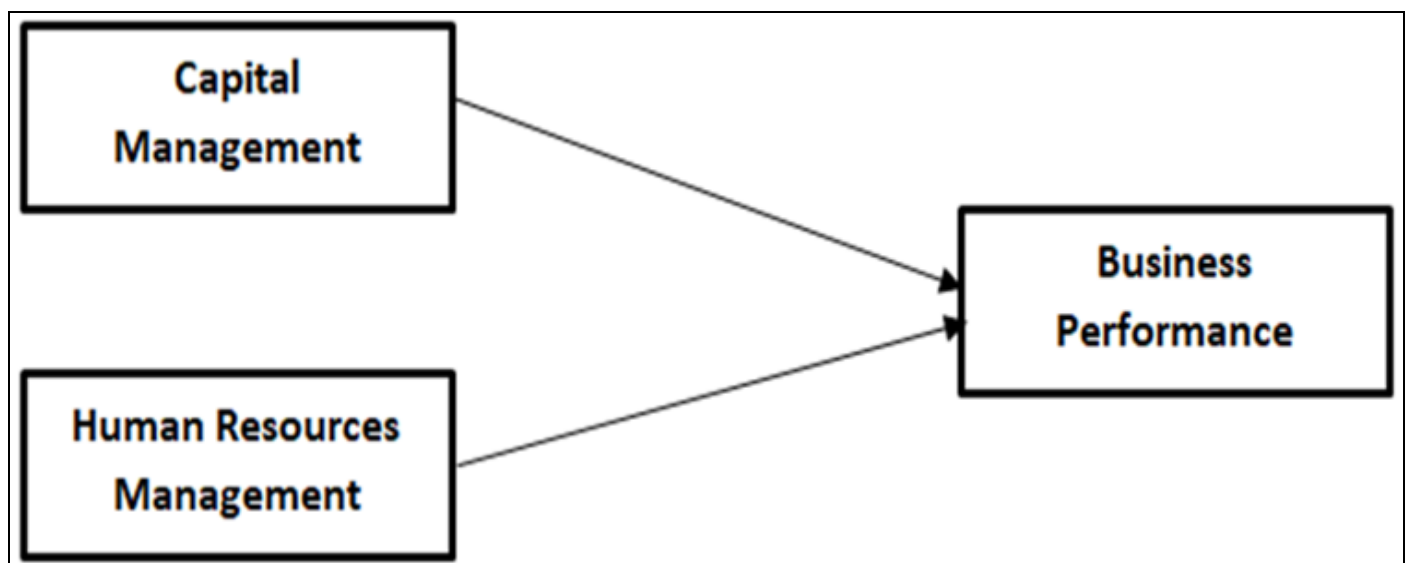


Fig 1 Fisheries MSME Cluster Business Performance Model

IV. ANALYSIS AND DISCUSSION

Regarding to the results of a survey of fish cultivation business groups in Sragen Regency, there are 68 active freshwater fish cultivation groups. Of the 68 groups, there are 1,025 members, consisting of 900 active members and 125 passive members. The total number of workers absorbed was 966 people, consisting of 947 non-family members and the remaining 19 people who were family members.

This study used a business group analysis unit, namely 68 business units. In the strategic management concept, this

fish farmer business group is the same as a business unit. The following is a description of several variables in this research based on a survey.

➤ Business Entity

Fish farming business entities are generally individuals. There are 85% or 58 fish cultivation business groups in the fish cultivation cluster in Sragen Regency that do not yet have business entities. The remaining 6 business groups (9%) are cooperatives and the other 4 (6%) are trading businesses. Table 1 shows a summary of the business entity forms of fisheries business units.

Table 1 Forms of Fish Cluster Business Entities

The Form of Business Entity	Number of Business Group	Percentage
Individual	58	85%
Trade Business	4	6%
Cooperation	6	9%
Total	68	100%

Source: Survey Result (2021)

➤ *Labor*

The survey of 68 respondents resulted in 50% business groups with 11 to 20 workers, or a total of 347 fish business groups. This figure is followed by fish farming business groups involving 1-10 workers, namely 43% or 29 business groups. There are only 4 business groups (6%) that involve

more than 30 workers, while the other 1% or 1 business group involves 21-30 workers. 70 percent or 48 business groups use family labor. This is a characteristic of MSMEs in their labor recruitment patterns which usually recruit family workers. Table 2 shows the number of workers working in business units in this fisheries MSME cluster.

Table 2 Number of Workers in the Sragen Fish Clusters

Number of Labor	Number of Business Group	Percentage
1 until 10 labors	29	43%
11 until 20 labors	34	50%
21 until 30 labors	1	1%
> 30 labors	4	6%
Total	68	100%

Source: Survey Result (2021)

➤ *Working Capital*

In one harvest period, 79% or 54 of the total 68 fish farming business groups surveyed allocated capital between 1-50 million rupiah, 6 groups or 9% allocated capital between 51-100 million rupiah. There are 5 business groups (7%) that

allocate capital of more than 200 million rupiah. Meanwhile, there are 2 groups (3%) of fish farming groups that allocate capital between 101-150 million rupiah, and there is only 1 group that allocates business capital of 151-200 million rupiah.

Table 3 Amount of Business Capital for Sragen Fish Clusters

Total Capital/Harvest Period	Number of Business Group	Percentage
1 - 50 million rupiahs	54	79%
51 - 100 million rupiahs	6	9%
101 - 150 million rupiahs	2	3%
151 - 200 million rupiahs	1	1%
> 200 million rupiahs	5	7%
Total	68	100%

Source: Survey Result (2021)

➤ *Sales Turnover*

Regarding to calculations in one harvest period, the turnover obtained by fish farmers in the fish cluster in Sragen Regency reaches Rp. 13,472,890,000.00. Of the total turnover, IDR 11,776,440,000.00 was obtained from the catfish, catfish, tilapia and carp rearing groups spread across 10 sub-districts, while IDR. 1,696,450,000.00 was obtained from the catfish and gourami fish breeding group.

In the catfish breeding business unit, the turnover for each harvest period reaches IDR 1,240,450,000.00, while for the gourami fish breeding type in Karangmalang and Sragen sub-districts the turnover reaches IDR 456,000,000.00. Judging from the percentage of sales turnover, there is 47% or as many as 32 fish farming business groups with a turnover of between 1-50 million rupiah. 19% of them, or 13 groups, earned a turnover per harvest period of between 101-150

million rupiah, 15% or 10 fish farming business groups earned 51-100 million rupiah per harvest period. Meanwhile there are 7 farmer groups or 10% of the total, earning a turnover per harvest period of 151-200 million. The remaining 6 farming business groups earn a turnover of more than 200 million rupiah in one harvest period.

➤ *The Effect of Working Capital on the Business Performance of Fisheries Cluster MSMEs*

Table 4 is a summary of the results of the regression analysis to test hypothesis 1. In this test, business performance is measured from production output, sales turnover and company assets, so that these three become the dependent variables of the Fisheries Cluster MSME business performance estimation model. The independent variable from the estimation model is the working capital of the fisheries cluster MSMEs.

Table 4 Regression Analysis Result

Antecedent	Dependent Variable: Production Output			Dependent Variable: Sale			Dependent Variable: The Company Asset			Dependent Variable: Profit		
	Regression Coef	t stat	Sig t	Regression Coef	t stat	Sig t	Regression Coef	t stat	Sig t	Regression Coef	t stat	Sig t
Work capital	0,834*	11,21	0,00	0,382*	3,097	0,003	0,815*	10,54	0,00	0,288*	2,253	0,03
F stat	125,79			9,588			111,08			5,076		
Sig F	0,000			0,003			0,000			0,03		
R ²	0,696			0,142			0,665			0,083		

Description: * = significant at $\alpha=0,05$

Source: Data Analysis Result

Dealing with the results of the regression analysis between production costs and business performance of fisheries cluster MSMEs, consistent results were found. The fisheries cluster MSME business performance as measured by production (harvest in kilograms), sales turnover, company assets and profit level are affected by production costs. The regression coefficient value of the production cost variable which is positive indicates that when there is an increase in production costs, there is an increase in the harvest percentage by 1%, an increase in harvest output by 0.834%, an increase in sales by 0.382%, an increase in assets by 0.815% and an increase in profits by 0.288%. Based on the coefficient of determination (R^2) from the estimation model, the model estimating the effect of working capital on production output has the highest coefficient of determination, namely 0.696. The estimation model for the effect of working capital on MSME assets has a coefficient of determination of 0.665. This can be interpreted as the working capital variable being the dominant factor in explaining business performance related to increasing production output and MSME assets. On the other hand, working capital does have a significant effect on the level of sales and profits of MSMEs, however, the coefficient of determination from the model estimating the effect of

working capital on sales and profits only shows values of 0.142 and 0.083. This shows that the working capital variable is not a dominant factor in increasing sales and profit levels. This shows that working capital has an influence on business performance, but the influence varies for each business performance factor consisting of production output (harvest), sales level, MSME assets and profits.

Findings related to the influence of working capital on MSME business performance are in line with findings from research by Lofving et al. [9] and Chen and Riordan [20]. In these two studies, capital and financial management strategies were the dominant strategy choices in developing MSME performance.

➤ *The Effect of Labor Management on MSME Business Performance*

Table 5 shows a summary of the analysis results from hypothesis 2. In the estimation model for hypothesis 2, the independent variable from the estimation model is the number of workers working in MSMEs and the dependent variables are harvest output, sales level, company assets and company profits.

Table 4 Regression Analysis Result

Antecedent	Dependent Variable: Production Output			Dependent Variable: Sale			Dependent Variable: Company Asset			Dependent Variable: Profit		
	Regression Coef	t stat	Sig t	Regression Coef	t stat	Sig t	Regression Coef	t stat	Sig t	Regression Coef	t stat	Sig t
Number of labors	0,345*	2,726	0,009	0,034	0,258	0,79	0,143	1,080	0,285	0,378*	3,06	0,0
F stat	7,431			0,067			1,116			9,342		
Sig F	0,009			0,797			0,285			0,00		
R^2	0,119			0,001			0,020			0,143		

Description: * = significant at $\alpha=0,05$

Source: Data Analysis Result

The results of the regression analysis between the number of workers and business performance show inconsistent results. The number of workers only influences two aspects of business performance, namely production output (harvest) and business profits. The number of workers does not have a significant effect on increasing sales and increasing company assets. In particular, increasing the number of workers by 1 percent increases production output (harvest) by 0.345 percent and business profit by 0.378 percent. The coefficient of determination (R^2) from the model estimating the influence of the number of workers on MSME business performance is low. In the estimation model, the effect of the number of workers on production output produces a significant regression coefficient at $\alpha=0.05$, however, the coefficient of determination value from this estimation model is only 0.119. The regression coefficient from the model estimating the effect of the number of workers on profits also shows a significant regression coefficient at $\alpha=0.05$. In this estimation model the coefficient of determination is also only 0.143. This means that the number of workers is not a dominant factor in improving the business performance of fisheries MSMEs. The results of the analysis in this study which show that

labor has a small influence on MSME business performance are very different from the findings from studies conducted by Tan et al. [25] and Soon et al. [26]. These two studies show that human resources (HR) play an important role in improving MSME business performance and ensuring innovation in their business processes. These different findings occurred because this study only measured the number of production workers in fisheries MSMEs and most of the workers in these MSMEs were unskilled and uneducated workers.

V. CONCLUSION

This study has concluded that working capital and the number of workers have a positive effect on the business performance of fisheries MSMEs. The findings in this research confirm that working capital is the dominant factor contributing to improving MSME business performance. Working capital management carried out by MSMEs, especially related to improving production cost efficiency, is the key to improving their business performance. In this study it was found that working capital contributed closely to increasing production output or fish harvests. This means

that fish farmers in the fisheries MSME cluster use their capital for production costs that are directly related to the harvest, namely seeds and feed. In fact, fish feed is the largest part of production costs in fisheries MSMEs. Working capital also has a dominant influence on increasing company assets. This happens because fish farmers always try to add assets in the form of new ponds every time they cultivate fish. The addition of this new pond is expected to increase the number of harvests and sales in the next cultivation period.

The number of workers affects the business performance, but labor is not the dominant factor in improving MSME business performance. The number of workers has a positive effect on increasing the amount of harvest output. This happens because the workforce in fisheries MSMEs are workers who work directly in providing feed, medicine and harvesting fish. The large number of workers enables a more specific division of labor so that the fish rearing process is more efficient so that the number of harvests increases. On the other hand, the number of workers also has an impact on increasing MSME profits, although the impact is small. This is also related to a larger number of harvests due to a more efficient production process with increased harvest output.

➤ *The Limitation*

This study has presented several limitations that need to be considered in the interpretation of results and generalization of findings. First, this research does not include direct measurements of the efficiency of capital use in the context of fisheries MSMEs in Sragen Regency. Although the capital management variable is measured through production costs, there is no direct analysis of how more efficient use of capital can contribute significantly to improving MSME business performance. The implication of this limitation is that research has not been able to provide a comprehensive view of the optimal capital allocation strategy that can increase the efficiency and profitability of fisheries MSMEs.

Apart from analysis of the efficiency of capital use, this research does not consider aspects of workforce skills and expertise in depth. Although the number of workers is measured as part of the HR management strategy, there is no analysis that specifically digs deeper into the skill and competency profile of the workforce in the fisheries MSME cluster. The lack of information on this aspect limits insight into the extent to which human resource quality contributes to innovation and productivity in the context of fisheries MSMEs.

This study has provided a strong foundation to encourage further research that can overcome the identified limitations. In particular, the following research needs to explore in depth the efficiency of capital use in the context of fisheries MSMEs, with a focus on more effective capital allocation strategies to increase productivity and profitability. No less important, a detailed study of the skills and expertise of the workforce in fisheries MSMEs is needed to provide a more comprehensive understanding of how quality human

resources can influence innovation and business performance. By filling this gap, future research can enable the significant contribution in developing more appropriate capital and human resource management strategies for MSMEs in this sector.

➤ *Implication*

In the context of research results regarding capital and labor management and their influence on the performance of fisheries MSMEs in Sragen Regency, several important implications can be identified. First, access to capital plays a crucial role in supporting the growth and sustainability of MSMEs. The findings show that the majority of fisheries MSMEs allocate working capital within a limited range, with only a small portion being able to access more significant amounts of capital. This highlights the need for efforts to increase access to capital for MSMEs, both through inclusive financial approaches and facilitating supportive policies.

Second, identifying production costs is a critical step in planning and managing fisheries MSME operations. Research has indicated that production costs have a direct effect on various aspects of business performance, including production output, sales turnover and company assets. By understanding cost structures in depth, MSMEs can optimize spending strategies and improve their operational efficiency, which in turn will have a positive impact on competitiveness and profitability.

Lastly, the quality of human resources (HR) in fisheries MSMEs needs to be improved significantly. The findings show that the majority of the workforce involved is unskilled or formally educated. Increasing HR qualifications and competencies will support the implementation of better managerial practices, innovation in production processes, and the ability to respond to rapidly changing market dynamics. Investment in human resource development is a strategic step to strengthen the capacity of MSMEs to face the challenges of globalization and increase the added value of the products and services that they offer.

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