# IMPROVING MSME COMPETITIVENESS THROUGH KNOWLEDGE MANAGEMENT AND HUMAN RESOURCE DEVELOPMENT: A CASE STUDY OF MSMES IN SORONG CITY, SOUTHWEST PAPUA PROVINCE

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## Abstract

This study aims to determine whether there is a relationship between knowledge management and human resource development on the competitiveness of MSMEs (Micro, Small, and Medium Enterprises) in Sorong City, Southwest Papua. Specifically, this study seeks to demonstrate that: there is a relationship between knowledge management and the competitiveness of MSMEs; and there is a relationship between human resource development and the competitiveness of MSMEs in Sorong City, Southwest Papua. The research was conducted in Sorong City, Southwest Papua, involving 378 MSMEs as the sample. The method used in this study is quantitative research with a survey approach for data collection. The results of the analysis indicate that there is a positive but not significant relationship between knowledge management and the competitiveness of MSMEs in Sorong City, Southwest Papua. Furthermore, there is a positive and significant relationship between human resource development and the competitiveness of MSMEs in Sorong City, Southwest Papua Province.

**Keywords:** Competitiveness, Knowledge Management, Human Resource Development

## INTRODUCTION

The era of globalization has brought a significant impact on business competition patterns, which have become increasingly complex and competitive, reaching a level of hyper-competition among companies across the globe(Munizu 2011). This condition compels business actors to continuously innovate and seek the best ways to manage their companies in order to maintain their existence while enhancing performance and competitiveness amidst increasingly challenging global competition. Given these changing business dynamics, there is a growing need to transform business models to achieve high competitiveness for entrepreneurs (Barmuta et al. 2020). Business competitiveness is a crucial factor in determining the success and sustainability of enterprises in highly competitive markets (Haseeb et al. 2019). By enhancing competitiveness, businesses can maintain market share, improve profitability, foster innovation, and attract more customers. To achieve this, effective knowledge management and quality human resources are essential.

Knowledge management is the process of identifying, managing, and disseminating information and knowledge within an organization so it can be leveraged to foster innovation, efficiency, and competitive advantage. Companies that successfully implement knowledge management are generally more adept at responding to market changes (Kmieciak and Michna 2018). Arsawan et al. emphasized that effective knowledge management helps MSMEs utilize both internal and external knowledge to drive product and process innovation, ultimately boosting their competitiveness (Arsawan et al. 2022). Centobelli et al. also showed that good knowledge management enables organizations to make better decisions, improve business processes, and respond more rapidly to market demands (Centobelli, Cerchione, and Esposito 2019). Human resource development includes a range of activities designed to enhance employees' capabilities, skills, and knowledge so they can contribute more effectively to the organization. It is a vital component in improving a company's competitiveness, as skilled and competent human resources serve as a key asset in implementing innovative business strategies (Hitka et al. 2019).

Moreover, human resource development also involves enhancing the entrepreneurial capacity of business owners and managers. Sancho et al. highlighted that strengthening entrepreneurial and managerial skills among MSME owners directly contributes to the company's innovation capabilities, positively impacting their competitiveness (Lechuga Sancho et al. 2018). Therefore, HR development in MSMEs must be tailored to their specific needs, such as improving technical skills and the ability to adapt to market changes. MSMEs are one of the main pillars of many global economies, making significant contributions to job creation and economic growth. However, MSMEs often lag behind large enterprises in terms of competitiveness due to limitations in access to capital, technology, and skilled human resources. According to the Indonesian Chamber of Commerce and Industry (KADIN), MSMEs play a substantial role in Indonesia's economic growth. In 2023, the number of MSME actors reached 66 million, contributing approximately 61% of the country's gross domestic product (GDP), or around IDR 9,580 trillion. This contribution allowed MSMEs to absorb about 117 million workers out of the total workforce. In Sorong City, Southwest Papua, the number of MSME actors was recorded at 6,823 in 2023 a significant figure.

With the rapid growth of MSMEs in Indonesia, various challenges must be addressed by all stakeholders. KADIN identifies human resource issues and limited knowledge as major problems in the MSME sector. According to the Parliamentary Analysis Center of the

Expertise Agency of the Indonesian House of Representatives (DPR RI), there are five critical issues facing MSMEs, most of which emphasize knowledge management and human resource management among MSME actors. Considering the importance of these matters, Sorong City as the capital of Indonesia's youngest province, Southwest Papua faces distinct challenges in advancing the MSMEs within its territory. Hence, a comprehensive strategy is needed to enhance the competitiveness of MSMEs in the region.

## REVIEW OF LITERATURE

### Knowledge Management

Knowledge management is a systematic process of identifying, managing, and disseminating knowledge within an organization to enhance innovation, efficiency, and competitive advantage. According to research by (Alfawaire and Atan 2021), knowledge management involves the planning, organizing, controlling, coordinating, and synthesizing of knowledge and related assets to maximize positive impact on an organization's competitive edge. Furthermore, research by (Soepardy 2020) found that knowledge management processes mediate the relationship between knowledge-based human resource management (HRM) practices and open innovation in small and medium-sized enterprises (SMEs). This indicates that effective HRM practices can enhance knowledge management processes, which in turn drive innovation and improve competitiveness.

### Human Resource Management

HRM refers to HR practices designed to enhance employee knowledge and foster innovation within the organization. (Phong Ba Le 2024) emphasizes the importance of HRM practices that support knowledge sharing, which significantly improves an organization's capability for product and process innovation. Research by (Behrooz Ghlichlee; Elnaz Mohammadkhani; Amir Hatami 2024) demonstrates that HRM practices that foster knowledge development are positively associated with intellectual capital, which in turn enhances sustainable competitive advantage in knowledge-based firms. This study highlights the mediating role of intellectual capital in the relationship between HRM practices and a firm's competitive advantage.

## RESEARCH METHOD

This research was conducted in Sorong City, Southwest Papua Province, with the respondents being Micro, Small, and Medium Enterprises (MSMEs) located in Sorong City. A quantitative approach was employed, using survey methods for data collection. The study utilized both primary and secondary data. Secondary data were obtained from various relevant institutions, such as the Central Bureau of Statistics (BPS) and local government agencies (SKPD) related to the study. These secondary data were collected through note-taking and/or photocopying of documents from MSME respondents or other relevant parties, in the form of records, documents, and archives that aligned with the research needs. Primary data were collected using questionnaires, interviews, and observations. The total MSME population in Sorong City was 6,823. Using the Slovin formula with a margin of error of 5%, a sample size of 378 MSMEs was determined. This research applied a mixed-method approach using a Concurrent Embedded design model. PLS is used as a tool in analyzing data.

## RESULTS AND DISCUSSION

Convergent Validity in SmartPLS refers to the concept of ensuring that indicators designed to measure the same construct are highly correlated with each other, indicating that they all measure the same aspect of a latent variable. This type of validity is essential for confirming that the measurement model used in Partial Least Squares (PLS) analysis is valid. To evaluate convergent validity, we check if the factor loadings are greater than 0.7, which indicates good convergent validity, or if the Average Variance Extracted (AVE) is greater than 0.5. Additionally, Discriminant Validity testing was conducted to determine if indicators measuring different constructs should not have high correlations with each other. This is assessed by examining the cross-loadings of the indicators with their respective constructs. Each indicator is said to adequately explain its latent variable if the cross-loading value of the indicator with its latent variable is greater than the cross-loading value with other latent variables (Ghozali 2016). The following results present the Convergent Validity for the constructs used in this study.

**Table 1**
**Convergent Validity**

| Variabel | Indicator | Outer Loading |
|---|---|---|
| Knowledge Management | KM1 | 0.74 |
| | KM2 | 0.79 |
| | KM3 | 0.81 |
| | KM4 | 0.76 |
| | KM5 | 0.83 |
| | KM6 | 0.78 |
| | KM7 | 0.75 |
| | KM8 | 0.80 |
| | KM9 | 0.84 |
| Human Resource Development | HRD1 | 0.76 |
| | HRD10 | 0.73 |
| | HRD11 | 0.74 |
| | HRD12 | 0.78 |
| | HRD13 | 0.75 |
| | HRD14 | 0.79 |
| | HRD15 | 0.72 |
| | HRD2 | 0.76 |
| | HRD3 | 0.74 |
| | HRD4 | 0.77 |
| | HRD5 | 0.81 |
| | HRD6 | 0.75 |
| | HRD7 | 0.78 |
| | HRD8 | 0.79 |
| | HRD9 | 0.76 |
| Competitiveness | C1 | 0.81 |

| | | |
|---|---|---|
| | C2 | 0.84 |
| | C3 | 0.83 |
| | C4 | 0.78 |
| | C5 | 0.79 |
| | C6 | 0.77 |
| | C7 | 0.76 |
| | C8 | 0.82 |
| | C9 | 0.85 |

Source: Data Processed, 2025

The Knowledge Management variable is one of the key constructs in this study, measured using nine indicators, namely KM1 to KM9. All indicators show outer loading values above 0.70, which means they meet the criteria for convergent validity. According to (Hair et al. 2019), the ideal outer loading value is ≥ 0.70, as it indicates that the indicator explains more than 50% of the variance of the construct it represents. With all indicators having outer loading values > 0.70, it indicates that all indicators can be used in the model and significantly contribute to explaining the Knowledge Management construct. No indicators need to be eliminated. This means that the measurement model for this variable demonstrates very strong convergent validity. The Human Resource Development (HRD) variable reflects the organization's systematic efforts to enhance employee capacity and competence, whether through training, education, coaching, or career development. In this study, the variable consists of 15 indicators (HRD1 to HRD15), each of which was also tested for convergent validity through outer loading values. All indicators in the HRD construct exhibit good convergent validity, although some loading values fall in the range of 0.72–0.74. However, from a methodological standpoint, these values are still acceptable and do not compromise the reliability of the construct. This indicates that the organization genuinely places serious emphasis on comprehensive and sustainable human resource development.

The Competitiveness variable describes the level of competitive advantage of a business. In this study, competitiveness is measured through nine indicators (C1 to C9), all of which show very high outer loading values, ranging from 0.76 to 0.85. With all loading values being > 0.75 and most of them > 0.80, it can be concluded that all indicators make a very strong contribution in explaining the Competitiveness construct. These indicators consistently reflect the organization’s strength in building sustainable competitive advantage.

**Table 2**
**Composite Reliability**

| | **Cronbach's Alpha** | **Composite Reliability (rho_a)** | **Average Variance Extracted (AVE)** |
|---|---|---|---|
| Knowledge Management | 0,907 | 0,926 | 0,612 |
| Human Resource Development | 0,941 | 0,950 | 0,579 |
| Competitiveness | 0,916 | 0,935 | 0,651 |

Source: Data Processed, 2025

Composite Reliability is used to measure the internal consistency of the indicators within a construct. It is similar to Cronbach’s Alpha but is considered more accurate in the

context of PLS-SEM because it takes into account the contribution of each indicator's loading. Based on the data presented above, it can be observed that all variables have composite reliability values greater than 0.7. Therefore, it can be concluded that the variables Knowledge Management, Human Resource Development, and Competitiveness are valid and meet the criteria for composite reliability.

**Table 3**
**Hypothesis Testing**

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T statistics (\|O/STDEV\|) | P values |
|---|---|---|---|---|---|
| Knowledge Management -> Competitiveness | 0,078 | 0,082 | 0.062 | 1,241 | 0,215 |
| Human Resource Development -> Competitiveness | 0,412 | 0,416 | 0.067 | 6,738 | 0.000 |

Source: Data Processed, 2025

Based on the data above, it is shown that the path coefficient value between the variable Knowledge Management and Competitiveness is positive but small, namely 0.078. Substantively, this means that every 1-unit increase in knowledge management will only increase competitiveness by 0.078 units. In other words, the direct contribution of knowledge management to competitiveness in this context is very limited. The standard deviation from the bootstrapping results provides information about the level of uncertainty in the path coefficient estimation. A value of 0.062 indicates a moderately high variability of the estimate, and in this context, the variation between samples is quite significant compared to the coefficient value itself, thus reinforcing the conclusion that the influence of knowledge management is not convincing.

The t-statistic of knowledge management on competitiveness is obtained by dividing the original sample value by its standard deviation (0.078 / 0.062 = 1.241). In the context of PLS-SEM, for the relationship between variables to be considered statistically significant at a 95% confidence level (alpha = 0.05), the t-statistic must be greater than 1.96. Since the t-value here is only 1.241, the influence of knowledge management on competitiveness is statistically not significant. A p-value of 0.215 also indicates that the probability of error when stating this effect as significant is 21.5%, which is far above the 5% threshold. This means there is not enough empirical evidence to state that knowledge management has a significant direct effect on organizational competitiveness in this study.

The coefficient of Human Resource Development (HRD) on Competitiveness shows that there is a positive and relatively strong influence of HRD on competitiveness. Substantively, this means that every 1-unit increase in HRD will increase competitiveness by 0.412 units. This value indicates that HRD plays a highly strategic role in enhancing the competitiveness of MSMEs. The standard deviation here is smaller than the path coefficient, indicating a high level of estimation certainty. In other words, in various bootstrapping processes, the coefficient results do not fluctuate much, meaning the effect of HRD on competitiveness is consistent. The t-statistic value far exceeds the critical value of 1.96, even reaching over 6.7, indicating that this effect is highly statistically significant. The probability of error in concluding the effect of HRD on competitiveness is very small. A p-value of 0.000

is a very strong statistical indication that the effect of HRD on competitiveness did not occur by chance. In other words, we can be very confident that HRD genuinely and significantly increases organizational competitiveness.

## CONCLUSION

Based on the results and discussion presented above, it can be concluded that the improvement of MSME (Micro, Small, and Medium Enterprises) competitiveness in Sorong City is directly influenced by knowledge management and human resource development. Knowledge management shows a positive but not significant effect. This means that knowledge management does not have a strong impact on enhancing the competitiveness of MSMEs in Sorong City. On the other hand, human resource development has a positive and significant effect, indicating that it plays a crucial role in improving MSME competitiveness in the region. Furthermore, this study recommends that knowledge management should receive more attention, as its influence was found to be statistically insignificant.

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