

## **Accounting and Human Resources Information Systems and Their Influence on Increasing The Income of Managers MSME in Indonesia**

**Vitriana Anung<sup>1</sup>**

\* Correspondence Author: [vitrianung6@gmail.com](mailto:vitrianung6@gmail.com)

<sup>1</sup>Faculty of Economics, University of Tribhuwana Tungadewi, Malang, Indonesia

INDEXING	ABSTRACT
<b>Keywords:</b> Keyword 1 : Accounting Keyword 2 : Information Systems Keyword 3: Human Resources Keyword 4 : Increasing	Micro, small, and medium enterprises (MSMEs) in Indonesia have experienced a significant increase after COVID 19. Reality shows that micro, small, and medium enterprises can help society overcome poverty. However, there are also negative sides that often come from parties such as customers, the government, and so on. The aim of this research is to determine the effect of accounting information systems and human resources on increasing income in MSMEs in Tlogomas and Sumber Sari subdistricts, Malang City, Indonesia. Several things focused on in this research are related to the influence of accounting information systems and human resources on increasing income in two sub-districts, namely Tlogomas Subdistrict and Sumber Sari Subdistrict, Malang City. The analytical method used in this research uses a data-based quantitative method, using a sample of 120 MSMEs. The sample was divided into 60 Tlogomas MSME actors and 60 Sumber Sari MSME actors used as samples. The results of this research show that the accounting and human resources information systems implemented in the Tlogomas and Sumber Sari sub-districts of Malang City have a positive influence on increasing income.

### **Article History**

Received 08 November 2023; Revised 12 December 2023; Accepted 10 January 2024

## **INTRODUCTION**

UMKM or Micro, Small, and Medium Enterprises is an activity in the economic sector that is widely found in Indonesia. MSMEs have an important function and role to contribute significantly to skills in producing goods into products or services. MSMEs are said to be important because of their ability to drive economic activities and increase a community's income (Suhendri et al., 2022). MSMEs have contributed a lot to economic development in society, especially in the Indonesian region, but in line with technological developments in the current era. MSME players are not always able to run their businesses smoothly. This is due to the existence of various factors that underlie the obstacles to MSME activities experienced by business actors.

An accounting information system (AIS) is a system that collects, records, stores, and processes data to form accurate data to help entrepreneurs make decisions. SIA is formed from a manual system that applies the latest technology and is systematic. The implementation of an accounting information system in a company, of course, also requires human resources who really understand the logic of accounting, so in this case, HR (human resources) has a very important influence on increasing income for companies or MSMEs. The existence of good human resources will have an influence on the development of a company and its ability to carry out its goals.

Malang City is a city that has many MSME activities that have developed quite significantly. These activities have various fields, both in the fields of food, beverages, and others. This development has been driven by many government stakeholders, especially in this case, the UMKM and Malang city cooperatives. Efforts to increase capacity in managing MSMEs have been carried out by the government, including conducting training in the financial management department.

Research that has discussed MSMEs and information systems has been carried out by several previous studies, including those carried out by Latifah et al. (2021); Qatawneh (2023); Desogus and Venturi (2023); and Esparza-Aguilar, García-Pérez-De-Lema, and Duréndez (2016). The results of previous research explain that the application of AIS to MSMEs can influence their performance. To compete on the global stage, MSMEs must be responsive to environmental changes due to the technological and information revolution. The development of AIS information for MSMEs aims to gather more information to assist MSME owners in making decisions that lead to increased efficiency, profitability, and performance of MSMEs (Latifah et al., 2021).

There is not much research that has been carried out before that discusses or examines the management of MSMEs from a human resource management perspective, so this research can be new in filling the lack of knowledge in the field of management and accounting, especially in the study of MSMEs. The aim of this research is to determine the influence of accounting information systems and human resources on increasing income in MSMEs in Tlogomas sub-district and Sumber Sari sub-district, Malang City, Indonesia.

## **LITERATURE REVIEW**

### **Accounting information system**

AIS is the processing of data and financial transactions provided by users to make decisions. Measuring accounting information uses the characteristics of accounting information, which are divided into reliability, relevance, timeliness, and instruments (Latifah et al., 2021). According to Kwarteng and Aveh (2018), accounting information is a collection of activities, documents, and interrelated technologies designed to collect data, process it, and report information to various groups of internal and external decision-makers in an organization. Sajady et al. (2008) explain that an accounting information system is a computer-based system that is defined as a system that increases control and improves corporateness within an organization.

### **Human Resource Management**

Human resource has been defined by the American Accounting Association (1973) as a process for identifying and measuring data about human resources and communicating the information to interested parties. (Verma & Dewe, 2008). Human resource management (HRM) has been considered a relevant intangible asset for creating competitive advantage (Garengo et al., 2022).

Human resource management, according to Patricia (2015), is defined as the labor system, resource system, and personnel system for carrying out certain functions. HRM must perform a number of different functions to find a balance between factors external to and internal to the organization. These functions can generally be described as

planning, resourcing, and retention; recruitment and selection; learning; training and development; remuneration and rewards; and employee relations.

### Entrepreneur income

Statement of Accounting Standards (PSAK) No. 23 explains that income is the economic benefit from normal company activities in a certain period. Meanwhile, according to Tarkiainen Shi et al. (2022), income can be conceptualized at the individual or household level, focusing on individual income, both gross and net, in conceptualizing income from daily activities. Revenue can also be interpreted as income from the company's main business or sales of goods and services, followed by costs to obtain gross profit (Jhon R., 2018).

### Research hypothesis

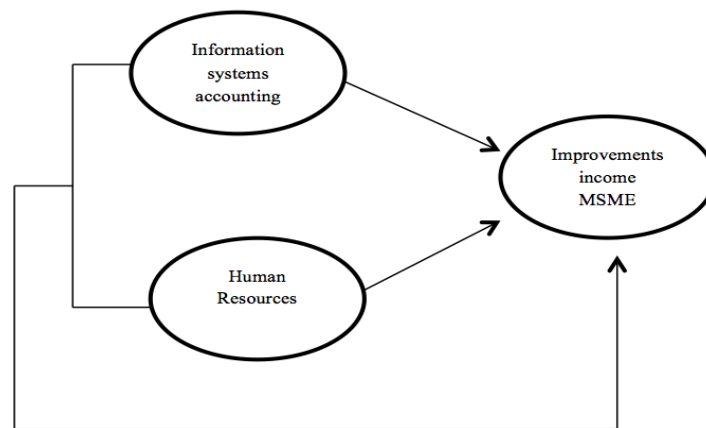


Figure 1. Conceptual framework

H1: There is a positive and significant influence between accounting information systems on increasing MSME income

H2: There is a positive and significant influence between Human Resources on Increasing MSME Income

H3: There is a positive and significant influence between the Accounting Information System and Human Resources on increasing MSME income

### RESEARCH METHOD

This research aims to test the hypothesis of the relationship between each variable studied. In this research, the variables studied include accounting information systems, human resources, and income increase in MSMEs in Tlogomas Village and Sumber Sari Village, Malang City. The MSMEs studied are MSMEs in the processing industry sector, including food, beverage, and service products, that are located close to regional economic crossroads and close to the city center. Based on these criteria, the selected sample consisted of 120 MSMEs located in Tlogomas Village and Summersari Village, Malang City.

## RESULT AND DISCUSSION

### Multiple Linear Regression Analysis

The analysis technique used in the research uses multiple linear analysis techniques. This analysis is used to measure the strength of the relationship between the independent variable and the dependent variable, as well as to show the direction of the relationship between the variables in this research. The results of the multiple regression analysis are explained in Table 1 below.

**Table 1. Results of Multiple Linear Regression Analysis**  
**Partial test**

Model	Unstandardized coefficients		Standardized coefficients		Q	sig
	B	std error	Beta			
(constant)	24,760	5,816			4,258	<.001
X1	,218	,115	,171		1,890	.041
X2	,179	,083	,194		2,152	.033

Source: 2023 data processing results

**Table 2. Results of Multiple Linear Regression Analysis**

<b>Simultaneous Test</b>						
Model	Sum of squares	Df	Mean square	F	Sig	
Regression	122,924	2	61,462	5,019	.008b	
Residual	1432,776	117	12,246			
Total	1555,700	119				

Source: Results; Data Processing 2022

Based on the multiple linear analysis results in Table 1, The results show that the coefficients of each variable can be included in the following regression equation:

$$Y = a + BX_1 + BX_2$$

$$Y = 24,760 + 0.218X_1 + 0.179X_2$$

### The Influence of Accounting Information Systems on Increasing Income

The results of the regression analysis in this research show that the accounting information system has a positive and significant effect on increasing the income of MSMEs in the Tlogomas sub-district and Sumber Sari sub-district, Malang city. The results of the analysis that has been carried out show that the t-statistic value > t-table (1,890 > 1.67) with a significance value of less than 0.05. Based on the results of this analysis, it is clear that the accounting information system variable has a positive and significant effect on increasing the income of MSMEs in Tlogomas sub-district and

Sumber Sari sub-district, Malang City. Thus, the results of this research show that a good accounting information system has a positive and significant effect on increasing the income of MSMEs in Malang City, so the first hypothesis is accepted (H1).

The results of this research are supported by research conducted by Kokina & Ostrovska (2013), Otieno et al. (2013), and Ami et al. (2023), which explains that accounting knowledge influences the performance of MSMEs. If business activities are carried out with maximum knowledge, they will produce good performance and obtain maximum income. Whether a business is successful or not can be influenced by how much knowledge the MSMEs themselves have. The ability to understand knowledge about how to operationalize accounting information systems will be used to improve the financial performance of MSMEs in the future.

### **Human resources have an effect on increasing income.**

The results of this research analysis show that human resources has a positive and significant effect on an increase in MSME income. The results of this analysis show that the t-statistic value  $> t\text{-table}$  ( $2,152 > 1.67$ ) with a significance value of less than 0.05. Based on the results of the calculation analysis that has been carried out, it shows that human resources have a positive and significant effect on increasing MSME income in Tlogomas and Sumber Sari sub-districts, Malang City, so the second hypothesis is accepted (H2).

The results of this research are supported by research conducted by Azizi et al. (2021); Mousa & Othman (2020; Widya et al. (2019; and Shrestha et al. (2022), which explains that human resources in micro, small, and medium enterprises have an important role in the progress or failure of a business. Increasing business income was also found to be able to influence the quality of human resources. Human resource capabilities are divided into several parts: ability, capacity, creativity, character, credibility, commitment, and suitability. The results of this research also explain that several indicators that have been described in the questionnaire given to respondents show that the indicators of creative human resource capabilities and credibility have the greatest influence on the success of small and medium businesses.

### **Accounting information systems and human resources have an influence on increasing MSME income**

This research shows that accounting information systems and human resources have a positive and significant effect on increasing MSME income. This is known from the calculated F value  $> F\text{ table}$  ( $5.019 > 3.07$ ) with a significant value  $< 0.05$  ( $\alpha = 5\%$ ). This result means that human resources together have a positive and significant influence on increasing income for MSMEs. The results of this research are also supported by research conducted by Thuan et al. (2022); Haitham Mohsin Kareem (2021; and Hariyati et al. (2019), which states that accounting information systems and human resources have a positive effect on increasing income. AIS performance has a positive impact on business performance. The application of AIS in a business can be used to help business owners and leaders decide whether the decision to use AIS can strengthen the company's position and reduce the company's burden in the future.

## CONCLUSION

The conclusion in this research explains that each accounting information system variable has a positive and significant influence on increasing income in MSMEs in Tlogomas and Sumber Sari subdistricts, Malang City, so the first hypothesis is accepted; human resources have a positive and significant influence on increasing income in MSMEs in Tlogomas subdistrict and Sumber Sari subdistrict, Malang City, so the second hypothesis is accepted; and the accounting information system and human resources have a positive and significant influence on increasing income in MSMEs in Tlogomas Village and Sumber Sari Village, Malang City, so the third hypothesis is accepted.

This research study was only carried out in the Malang city area, so it is hoped that further research can use a wider location to find out how much influence these variables have in increasing MSME income. Something that needs to be considered in further research is that the term AIS is still relatively new and creates many obstacles in the information communication process between business actors, especially MSMEs, and existing resource management.

## REFERENCE

- Ajabra . (2020). *Human Resource Management*. Yogyakarta : CV Budi Utama
- Aji, W, A. (2021). The Influence of Business Capital, Business Location, and Information Technology on MSME Income in Bantu Regency. *Indonesian Accounting Scientific Journal*. Vol. 6, no. 1)1-16
- Amran, et al. (2022). Analysis of the Influence of Human Capital and Provincial Minimum Wages (Ump) on the Economic Productivity of North Sulawesi Province. *Efficiency Scientific Periodical Journal*: Volume 22 No.4
- Ami, AS, Syafitri, L., & Meiriasari, V. (2023). The Effect Of E-Commerce And The Use Of Accounting Information Systems On The Revenue Cycle Of Micro, Small And Medium Enterprises (Study on Culinary MSMEs in Prabumulih City). 3(1), 68–77.
- Azizi, M.R., Atlasi, R., Ziapour, A., Abbas, J., & Naemi, R. (2021). Innovative human resource management strategies during the COVID-19 pandemic: A systematic narrative review approach. *Heliyon*, 7(6), e07233. <https://doi.org/10.1016/j.heliyon.2021.e07233>
- Andi. (2017). *Accounting information system essence and application*. Yogyakarta : TM Books
- Anwar, M. (2017). *Introduction to Entrepreneurship*. Jakarta: Kencana
- Araniri , I ;, DKK. (2021). *Human Resource Management* . Yogyakarta: Insania
- Artini, R, N. (2019). Analysis of factors that influence MSME income in Tabanan Regency. <https://Journal Unmas Mataram ac.id /index.php/GARA> . Vol. 13, 01, 71-77
- Bahri ., Sari , M , N. (2022). *Business Environmental Ethics and Its Urgency in Increasing MSME Productivity*. Surabaya: Global Aksara Press
- Brooks, John R., "The Definitions of Income" (2018). Georgetown Law Faculty Publications and Other Works. 1952.<https://scholarship.law.georgetown.edu/facpub/1952>
- Darnis, F., Azdi, A, R. (2019). Utilization of Promotional Website Information Media (E-Commerce) as an Effort to Increase the Income of MSMEs in Pedado Village. *Journal of National Seminar on Community Service Results*. Vol 01, No.1

- Dasaratha, V., Jones, F. R. (2018). *Accounting Information Systems*. Jakarta: selemba four.
- Desogus, M., & Venturi, B. (2023). Stability and Bifurcations in Banks and Small Enterprises—A Three-Dimensional Continuous-Time Dynamical System. *Journal of Risk and Financial Management*, 16(3). <https://doi.org/10.3390/jrfm16030171>
- Esparza-Aguilar, J. L., García-Pérez-De-Lema, D., & Duréndez, A. (2016). The effect of accounting information systems on the performance of Mexican micro, small and medium-sized family firms: An exploratory study for the hospitality sector. *Tourism Economics*, 22(5), 1104–1120. <https://doi.org/10.5367/te.2015.0515>
- Garengo, P., Sardi, A., & Nudurupati, S.S. (2022). Human resource management (HRM) in the performance measurement and management (PMM) domain: a bibliometric review. *International Journal of Productivity and Performance Management*, 71(7), 3056–3077. <https://doi.org/10.1108/IJPPM-04-2020-0177>
- Haitham Mohsin Kareem. (2021). Sustainability-13-12706-V2.Pdf.
- Hariyati, Tjahjadi, B., & Soewarno, N. (2019). The mediating effect of intellectual capital, management accounting information systems, internal process performance, and customer performance. *International Journal of Productivity and Performance Management*, 68(7), 1250–1271. <https://doi.org/10.1108/IJPPM-02-2018-0049>
- Kokina, I., & Ostrovskaya, I. (2013). Eurasian Multidisciplinary Forum, EMF 2013 24-26 October, Tbilisi, Georgia Proceedings, Vol.1. In 1st Eurasian Multidisciplinary Forum (Vol. 1). [https://gruni.edu.ge/uploads/files/kvleva/fondebi/emf\\_2013\\_vol\\_1.pdf#page=372](https://gruni.edu.ge/uploads/files/kvleva/fondebi/emf_2013_vol_1.pdf#page=372)
- Kwarteng, A., & Aveh, F. (2018). Empirical examination of organizational culture on accounting information systems and corporate performance: Evidence from a developing country perspective. *Meditari Accountancy Research*, 26(4), 675–698. <https://doi.org/10.1108/MEDAR-01-2018-0264>
- Latifah, L., Setiawan, D., Aryani, YA, & Rahmawati, R. (2021). Business strategy – MSMEs' performance relationship: innovation and accounting information systems as mediators. *Journal of Small Business and Enterprise Development*, 28(1), 1–21. <https://doi.org/10.1108/JSBED-04-2019-0116>
- Mousa, SK, & Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organizations: A conceptual framework. *Journal of Cleaner Production*, 243, 118595. <https://doi.org/10.1016/j.jclepro.2019.118595>
- Otieno, O.C., Oginda, M., Mark Obura, J., O. Aila, F., B. Ojera, P., & M. Siringi, E. (2013). Effect of Information Systems on Revenue Collection by Local Authorities in Homa Bay County, Kenya. *Universal Journal of Accounting and Finance*, 1(1), 29–33. <https://doi.org/10.13189/ujaf.2013.010104>
- Patrichi, M.E. (2015). General Military Human Resource Management and Special Forces Human Resource Management. a Comparative Outlook. *Journal of Defense Resources Management*, 6(2), 75–81.
- Qatawneh, A.M. (2023). The Role of Employee Empowerment in Supporting Accounting Information Systems Outcomes: A Mediated Model. *Sustainability (Switzerland)*, 15(9). <https://doi.org/10.3390/su15097155>
- Sajady, H., Dastgir, M., & Hashem Nejad, H. (2008). Evaluation of the effectiveness of accounting information systems. *International Journal of Information Science and*

*Management*, 6(2), 49–59.

- Shrestha, R.B., Bhandari, H., & Pandey, S. (2022). Profit Efficiency of Smallholder Vegetable Farms in Nepal: Implications for Improving Household Income. *Frontiers in Sustainable Food Systems*, 5 (January), 1–12. <https://doi.org/10.3389/fsufs.2021.691350>
- Thuan, PQ, Khuong, NV, Anh, NDC, Hanh, NTX, Thi, VHA, Tram, TNB, & Han, CG (2022). The Determinants of the Usage of Accounting Information Systems toward Operational Efficiency in Industrial Revolution 4.0: Evidence from an Emerging Economy. *Economies*, 10(4). <https://doi.org/10.3390/economies10040083>
- Verma, S., & Dewe, P. (2008). Valuing human resources: perceptions and practices in UK organisations. *Journal of Human Resource Costing & Accounting*, 12(2), 102–123. <https://doi.org/10.1108/14013380810889547>