THE ROLE OF TECHNOLOGY IN HUMAN RESOURCE MANAGEMENT TO IMPROVE MSMES IN INDONESIA

Fanesha Fazriyani[1] , Wawan Prahiawan [2]

[1]Sultan Ageng Tirtayasa University, Serang, Banten
Email: faneshafy98@gmail.com, Wawan.prahyawan@ymail.com

ABSTRACT

This study aims to determine the role of technology in human resource management to improve MSMEs in Indonesia. The approach used in this research is descriptive qualitative. Data collection techniques in this study by collecting data from books or journals. The type of data used is secondary data obtained from the Databoks website. Katadata.co.id and data from the Central Statistics Agency (BPS). The results of this study explain that technology plays an important role in human resource development and provides several benefits for MSMEs in terms of product development, due to the many online marketing features available, from product availability to the payment process. The technologies used in human resource management are HRIS, ATS and LMS. The use of technology in the worker selection process is a common choice in human resource management to find a worker who is in accordance with what the company needs.

Keywords: *Technology, Human Resource Management, MSMEs*

ABSTRAK

Penelitian ini bertujuan untuk mengetahui peran teknologi dalam manajemen sumber daya manusia untuk meningkatkan MSMES di Indonesia. Pendekatan yang digunakan dalam penelitian ini adalah kualitatif deskriptif. Teknik pengumpulan data dalam penelitian ini dengan cara mengumpulkan data dari buku-buku atau jurnal. Jenis data yang digunakan adalah data sekunder yang diperoleh dari website Databoks. Katadata.co.id dan data dari Badan Pusat Statistik (BPS). Hasil penelitian ini menjelaskan bahwa teknologi berperan penting untuk pengembangan sumber daya manusia dan memberikan beberapa manfaat bagi MSMES dalam hal pengembangan produk, karena banyaknya fitur pemasaran online yang tersedia, mulai dari ketersediaan produk hingga proses pembayaran. Teknologi yang digunakan dalam manajemen sumber daya manusia yaitu HRIS, ATS dan LMS. Penggunaan teknologi pada proses penyeleksian pekerja adalah hal yang biasa dipilih dalam manajemen sumber daya manusia untuk mencari seorang pekerja yang sesuai dengan yang dibutuhkan Perusahaan.

Kata Kunci: Teknologi, Manajemen Sumber Daya Manusia, MSMES

INTRODUCTION

Indonesia is currently starting to realize the era of digitalization, the development of technology that is very fast and sophisticated facilitates daily life. According to data from the Central Statistics Agency (BPS) which explains that in 2018 - 2022 the number of people who have cellular telephones is increasing every year, in 2018 as much as 66.22 percent in 2019 increased to 73.75 percent, in 2020 as much as 78.18 percent, then increased again in 2021 to 82.07 percent and 2022 is the year that the largest number of people have cellular phones, namely 86.54 percent.

Technology is an important factor in bringing change to the Company and in human resource management. Technology can make it easier for the Company to recruit employees and conduct training and development of workers more easily and affordably. Providing employee training in the use of technology to master the management of social media so as to help introduce the company's business to the outside community and can develop employee skills. Technology assists the Company in implementing a performance management system by tracking and evaluating workers' performance in a measurable manner. Applying technology can increase company productivity and achieve employee satisfaction. Based on BPS data that the population accessing the internet has grown every year from 2018 - 2022, in 2018 the population using the internet was 39.90 percent then increased in 2022 to 66.48 percent of the population accessing the internet.

Technological advancement is no longer a foreign word to the people of Indonesia. The rapid advancement of technology that occurs today makes it easier to access information and manage data efficiently and effectively. Technological advances in using the internet are what the general public wants. The rapid development of the internet has brought innovation. Internet penetration is a key factor in ongoing economic development. The increase in the internet has resulted in a network for small and medium enterprises which is a pillar for the economy. The internet can help MSMEs in marketing their products not only nationally but internationally. Internet access facilitates learning resources and information about business to help develop employee skills in technology. The benefits of the internet help to improve the competitiveness of MSMEs and expand market networks and can achieve sustainable growth in the digital era (Asisa et al., 2022).

Human resources are not only used as a means of production, but also as a means of supporting and supervising the entire organization, business activities, and the production process itself, and have an important role in determining the progress and development of a company. The performance of a company is determined by the quality of human resources. Competence is a key factor in determining success in an organization or company. The existence of high competence will determine the quality of human resources and can determine the competitiveness of the company. In addition, in the micro, small and medium enterprise (MSME) sector, human resource competencies function in advancing MSMEs. Widjaja et.al., 2018).

As the primary human resource contributing to organizational goals, Human Resource Management is the process of ensuring that employees are effectively and efficiently utilized for the benefit of the individual, the business, and society. To attract employees, the Company must screen, recruit and reward workers. MSMEs are an alternative to encourage the rate of economic growth and play a role in employment. There are several characteristics of MSMEs, namely micro-enterprises with a small scale run by one person or a small group, small businesses, namely businesses with an operational scale that have more turnover and assets compared to micro-

enterprises, then medium-sized businesses are businesses with a large scale than small businesses. Micro, small and medium enterprises are business owners who are members of communities that own small and medium enterprises. Because MSMEs play a role in absorbing a lot of labor and expanding access to goods and services, they can contribute to driving economic growth (Arifin et al.).

Research Objectives

Based on the background description, it can be explained that the objectives of this study are:

1) Analyzing the role of technology in human resource management to improve MSMEs
2) Explain what technologies are used in human resource management

LITERATURE REVIEW
Human Resource Management

Human resources are one of the most important assets in running operations for the sustainability of an organization. Human resource capacity refers to the ability of individuals, organizations or systems to perform their duties or mandates to achieve goals in an efficient and effective manner. It also refers to the expertise of human resources who have the education, training, and experience to fulfill the responsibilities and tasks assigned. Human resources are the main support and driver of an organization to achieve its vision, mission and goals. Human Capital can be evaluated based on their average level of education, training and experience. Education is a universal part of human life. Training is a systematic process of changing individual behavior to achieve organizational goals. Appropriate training should be linked to the skills and abilities needed to do the job. Experience comes from one's working hours. With experience, it becomes easy to complete tasks, have extensive knowledge, and easily adjust to the environment (Agustin et al., 2020).

Human resource management is a series of company activities that have the aim of improving, and strengthening effective employees. Human resources that enter the Company's criteria both in terms of quality or quantity in order to remain competitive. a Company cannot run if there are no human resources, even if other resources are fulfilled. Human resources are a company tool used to manage other resources (Kurniawan et al., 2024).

Human resource planning is an activity of a company or organization to analyze and provide human resource needs in order to fulfill what human resources need. Human resource planning is a process to ensure the condition of human resources, the number and quality of the appropriate workforce will be available when needed (Onsardi & Finthariasari, 2022).

Human resource development is an activity that is carried out regularly and in a planned manner to provide facilities for employees in a company with the appropriate abilities to meet the rules in the work, in developing human resources through competence, there are several indicators of competence to develop human resources, namely skills, to carry out activities well, master or know information in certain fields, self-image, constant traits in one's behavior (Apriliana & Nawangsari, 2021).

Resources include people (workers), money, time, technology, knowledge, and other things used by an organization or company. The purpose of organizational resource management is to increase the productivity, efficiency, and competitiveness of the company. Human resource management consists of selecting and recruiting employees through training and education (Purnama & Sunyoto, 2024).

Technology

Technology is a type of computer network that consists of several components to manage information using several types of hardware devices, software, data management, and information network technology. Information technology refers to the use of various technologies to collect data, this includes processing, obtaining, collecting, manipulating data to obtain high-quality information. This type of information is accurate and timely used for business, government, and private needs. It is also strategic information for making decisions (Falaq & Kornitasari., 2019).

Digital Marketing is a tool for marketing that uses digital platforms and online channels that influence customer behavior through multiple interaction channels such as social media. A method of promoting products and services through an e-commerce platform via an internet connection, digital marketing focuses on operating several types of online businesses to attract new consumers, serve existing customers, and build relationships with customers. (Kristanti et al., 2023).

Social media is the use of online platforms to communicate and interact with others. Social media is currently one of the most important things in the digital age. Social media provides a lot of online interaction for users and businesses. Communication within the company is very important for sharing information (Cahya & Tunjungsari, 2024).

Micro, Small and Medium Enterprises (MSMEs)

Hastuti et al., 2020, Micro, Small, and Medium Enterprises (MSMEs) refer to business activities capable of providing employment that are often considered the backbone of the economy and adequate economic support to the community. MSMEs have the ability to advance the process of equity, increase the income of the wider community, and encourage economic improvement and national stability.

Based on Law No. 9 of 1999 explaining Small Business as amended to Law No. 20 of 2008, MSMEs can be defined in Article 1 as follows:

1. Microbusiness is a type of small business conducted by an individual or a group of separate business units that meet the criteria of microbusiness according to the law.

2. Small Business is a type of business that has a larger scale compared to micro businesses or productive economic businesses that are able to stand alone, which are run by individuals or business entities that are not included in the company's branch, or are not part of either directly or indirectly from Medium Enterprises or Large Enterprises that meet the criteria of Small Businesses as referred to in this Law.

3. Medium-sized Enterprises are productive economies located between micro enterprises and large enterprises, controlled by individuals or business entities that are not branches of, controlled by, or part of either directly or indirectly with Small Enterprises or Large Enterprises whose net worth or annual turnover is regulated by law.

4. Big Bussiness is referred to as a productive economic business with a very large size run by a business entity that has a total net worth or annual sales result higher than that of a medium-sized business, which consists of state-owned or private national businesses, joint ventures, and foreign businesses that carry out economic activities in Indonesia.

Micro Enterprises, Small Enterprises, Medium Enterprises, and Large Enterprises that carry out economic activities in Indonesia and are domiciled in Indonesia. Explained in Article 6 of Law No.20 of 2008 concerning MSME criteria in the form of capital, namely:

1. Micro Business Criteria
   a. Have a net worth of at least Rp50,000,000.00 (fifty million rupiah) which does not include the land and building of the place of business
   b. Has total annual sales of at most IDR 300,000,000.00 (three hundred million rupiah).

2. Small Business Criteria
   a. Has a net worth of more than Rp 50,000,000.00 (fifty million rupiah) up to Rp 500,000,000.00 (five hundred million rupiah) excluding the land and building of the place of business
   b. Has total annual sales of more than Rp 300,000,000.00 (three hundred million rupiah) up to Rp 2,500,000,000.00 (two billion five hundred million rupiah).

3. Medium Business Criteria
   a. has a net worth of more than Rp 500,000,000,000.00 (five hundred million rupiah) up to Rp 10,000,000,000,000.00 (ten billion rupiah) excluding land and building of the place of business

b. has total annual sales of more than Rp 2,500,000,000.00 (two billion five hundred million rupiah) up to a maximum of Rp 50,000,000,000.00 (fifty billion rupiah).

METHOD

The method used in this research is to use a qualitative method with a descriptive approach. An approach that aims to describe or explain in-depth phenomena related to the object of research, namely the role of technology in human resource management to improve MSMEs in Indonesia.

Data collection techniques in this study by collecting data from books or journals. The type of data used is secondary data obtained from the Databoks website. Katadata.co.id and take data from the Central Statistics Agency (BPS). The data analysis technique uses data collection first through the website, then selects the data that will be taken for this research, the selected data will be displayed and concluded.

RESULTS AND DISCUSSION

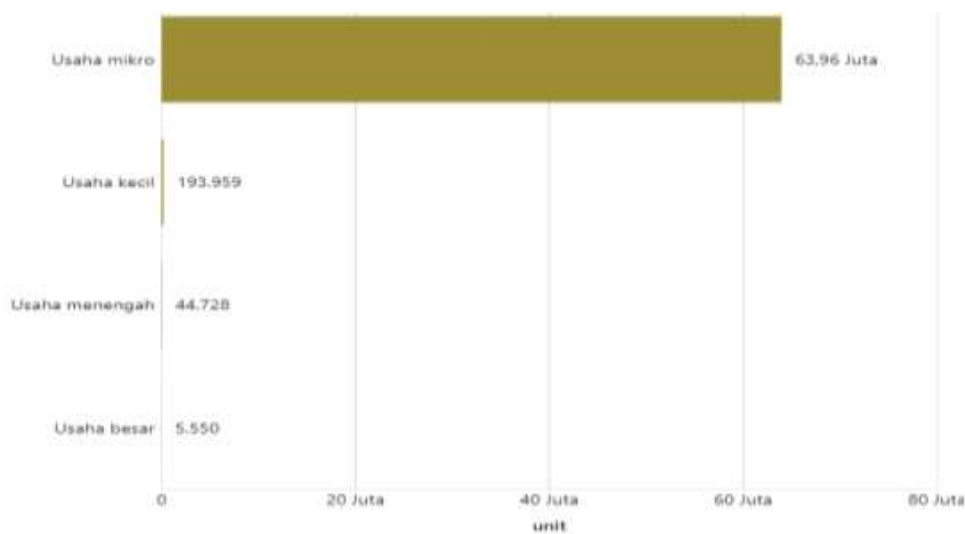**Human Resource Management in Micro, Small and Medium Enterprises**

Figure 1. Number of Micro, Small, and Medium Enterprises MSMEs in Indonesia 2021
Source: databoks.katadata.co.id

Based on the figure above, there are 64.2 million MSMEs in Indonesia in 2021. Micro businesses in the MSME structure reached the highest level of 63,96 units in 2021, then for small businesses it reached 193,959 units, then medium-sized businesses amounted to 44,728 units and the last large business was 5,550 units.

MSMEs have the potential to stabilize and dynamize the Indonesian economy. It is important for Indonesia to pay attention to MSMEs. Because MSMEs can perform very well in a productive workforce, increase high productivity, and reap the benefits of large enterprises. MSMEs can support large enterprises, among others, by providing raw materials, spare parts, and other supporting materials. MSMEs can also act as the frontline for large companies in distributing and selling their products to consumers (Widjaja et al, 2018). The position of MSMEs is increasingly stable. These MSMEs are not only able to provide a large amount of labor, but also have the flexibility to survive even in adverse conditions such as the global crisis. To achieve growth and development, MSMEs must have the ability to handle the internal and external aspects of their business environment. Management knowledge and skills are required for internal factors, including MSME human resources. Human resources are key, usually starting from the business owner (owner) and employees around the MSME business owner. Similar to large companies, human resource management in small and medium enterprises includes recruitment, selection, placement, development, compensation (wages), retention, evaluation, promotion, and dismissal. Human resource management in SMEs is an important skill for entrepreneurs (Widjaja et al., 2018).

Human resource management in MSMEs is very important for recruiting employees with criteria that are in accordance with what is needed by MSMEs such as these employees have expertise in accordance with company goals. Recruitment of employees can use social media to make it easier for others to find opportunities that are in accordance with their fields. The recruitment process can be informed via the internet by placing advertisements to attract workers and include contacts to be able to carry out the next process. The next stage is to select workers according to the required field. If the worker has been accepted, then further responsibilities and tasks will be carried out (Arifin et al., 2021).

The Role of Technology in Human Resource Management to Improve MSMEs

Technology provides benefits for human resource development and can produce high quality goods. Online learning platforms are used to train employees to improve their skills. Performance management software can be used to evaluate employee performance (Sudiantini et al., 2023).

Trained employees can utilize the use of technology to promote MSME products so that they can be reached by a wider community.

Figure 2

Percentage of Population Accessing the Internet

Source: BPS Telekomunikasi Indonesia 2022

Seeing from the figure above that the percentage of the population aged 5 years and over who have accessed the internet in the last three months according to regional classification states that from 2018 to 2022 there has been a continuous increase in internet usage, in 2021 the population accessing the internet in both urban and rural areas is 62.1 percent. In 2022 internet usage has increased to 66.48 percent. The increasing percentage of the population using the internet occurs in all regions of Indonesia.

Digital technology works for MSMEs in terms of product development, due to the many online marketing features available, from product availability to payment processes. Customers can search for MSME products more conveniently through digital technology. Several technologies have emerged to help MSMEs sell their products. The most important thing is to use social media effectively. Social media has an impact on MSMEs as it can serve as a personal touchpoint with customers, advertising or promotion, data collection, and even customer service. Social media can also be used to pay attention to customers online, conduct market research, analyze consumer needs, and provide product galleries for promotion (Utomo et al., 2023).
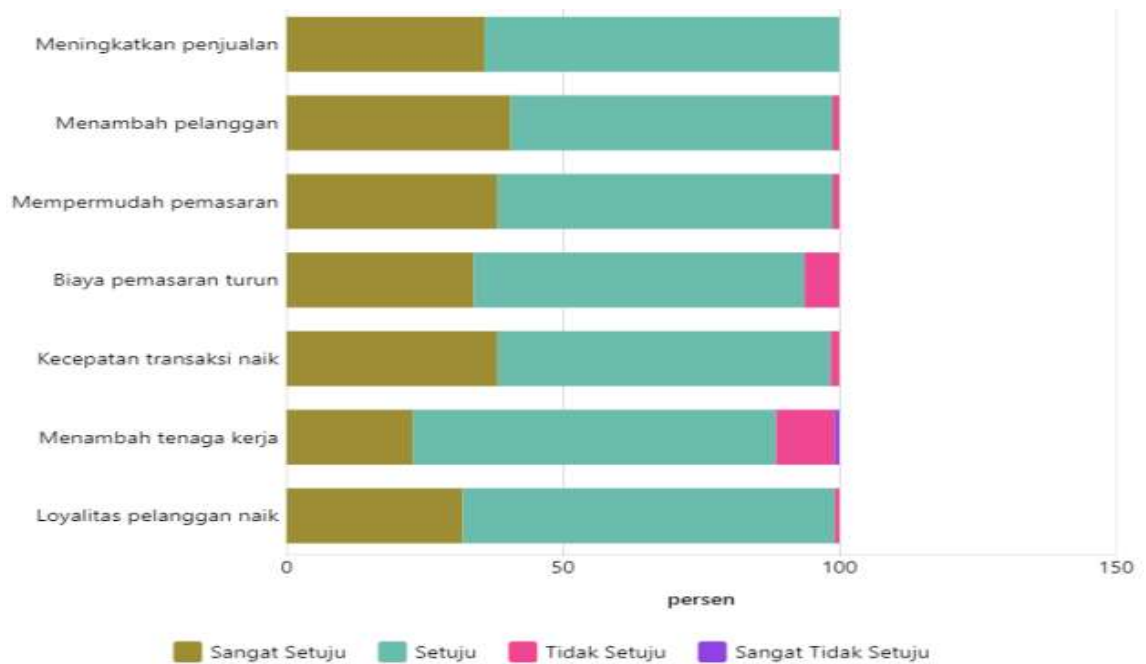
Figure 3. Impact of Digital Platform Usage by MSME Respondents 2023

Source: databoks.katadata.co.id

Data on the use of digital platforms in MSMEs has a positive impact, seeing from the results of the image data above that digital platforms can increase sales, can increase customers because digital platforms make it easy to interact directly between sellers and customers, besides that it can facilitate marketing and transactions, help to reduce marketing costs and also be able to increase labor.

Types of Technology used in Human Resource Management

Sudiantini et al., 2023, Some types of technologies that are useful in human resource management are as follows:

a. *HR Information System* (HRIS) is software that provides benefits for MSMEs in human resource management, can be used to collect employee information such as payroll, provide benefits, employee attendance, and evaluate performance.

b. *Applicant Tracking System* (ATS) is an important software in human resource management, helping the Company to carry out the recruitment of new employees. ATS helps to filter employees based on certain criteria such as education and skills. ATS is also useful to assist the Company in providing data analysis.

c. *Learning Management Systems* (LMS): LMS is software that is used Company to organize, deliver worker training and development.

The use of technology in the process of selecting workers is a common choice in human resource management to find a worker who matches what the company needs. Here are some technologies that work for worker recruitment.

a. ATS *(Applicant Tracking System)*
b. *Crowdsourced Recruitment*
c. *Online Assessment*
d. *Virtual Assessment* Center
e. *Automated Video Interview*
f. *Social Recruitment*

CONCLUSION

MSMEs have the potential to stabilize and dynamize the Indonesian economy. As a developing country, MSMEs must be able to manage well the internal and external factors of their business environment. One of the internal factors that require management knowledge and skills is the human resources of MSMEs. Human resource management in small and medium enterprises includes recruitment, selection, placement, development, compensation (wages), retention, evaluation, promotion, and dismissal. Learning platforms, both online, are used to train employees to improve their skills. Social media has an impact on MSMEs because it can serve as a personal point of contact with customers, advertising or promotion, data collection, and even customer service. types of technology that are useful in human resource management are HRIS, ATS, LMS.

REFERENCES

Agustin, R., Cahyono, D., Aulin, G., Kapasitas Sumber Daya Manusia, Pemanfaatan Teknologi Informasi dan Pengendalian Intern Terhadap Nilai Informasi Pelaporan Keuangan. International Journal of Social Science and Business. Volume 4, Number 1, Tahun 2020, pp. 116-122.

Apriliana, S. D., & Nawangsari, R. (2021). Pelatihan dan pengembangan sumber daya manusia (sdm) berbasis kompetensi. *FORUM EKONOMI*, *23*(4), 804–812. http://journal.feb.unmul.ac.id/index.php/FORUMEKONOMI

Arifin, S. R., Haryanto, R., & Iain, M. (n.d.-a). *Peran manajemen sumber daya manusia (msdm) melalui usaha mikro kecil dan menengah (MSMEs) untuk penguatan ekonomi*. *18*(3), 2021–2425. http://journal.feb.unmul.ac.id/index.php/KINERJA

Arifin, S. R., Haryanto, R., & Iain, M. (n.d.-b). *Peran manajemen sumber daya manusia (msdm) melalui usaha mikro kecil dan menengah (MSMEs) untuk penguatan ekonomi*. *18*(3), 2021–2425. http://journal.feb.unmul.ac.id/index.php/KINERJA

Asisa, W., Aulia, P., Dalianti, N., & Handa, Y. R. (2022). *Pengaruh Pemahaman Literasi Keuangan dan Kemudahan Digital Payment terhadap Kinerja MSMES di Kota Makassar. 3*(1).

Badan Pusat Statistik (BPS). Telekomunikasi Indonesia. 2022.

Databoks.katadata.co.id.

Efisiensi, M., Daya Saing Yuswanto Hery Purnama, dan, & Danang Sunyoto, C. (n.d.). *Manajemen Sumber Daya Organisasi Penerbit Cv. Eureka Media Aksara*.

Falaq, M. (n.d.). *Analisis Adaptasi Pemanfaatan Teknologi Informasi Terhadap Kinerja Msmes Di Kota Malang Jurnal Ilmiah Disusun Oleh*.

Hastuti, P., Nurofik, A., Purnomo, A., Hasibuan, A., Aribowo, H., Ilmi Faried, A., Sudarso, A., Kurniawan Soetijono, I., Hadi Saputra, D., & Simarmata Penerbit Yayasan Kita Menulis, J. (n.d.). *KEWIRAUSAHAAN DAN MSMES*.

Kristiani, M. M., Erwita, M. A., Kurniawan, H. Pengaruh Digital Marketing dan E-service Quality terhadap Purchase Intention melalui Customer Relationship Management Blibi di Surabaya. Jurnal manajemen bisnis dan kewirausahaan. Vol. 7/ No. 5/ September-2023: 1180-1193.

Cahya, D. D., Tunjungsari, H. K. Pengaruh komunikasi media sosial terhadap niat perilaku pelanggan dimediasi kepuasan pelanggan dan dimoderasi gender dalam industri hospitality. Jurnal manajemen bisnis dan kewirausahaan. Vol. 8/ No. 1/Januari-2024: 124-137.

Kurniawan, A., Dian Lestari, C., Novi Susyani, M., Intan Permata Dewi, M., Andreas Triady, M., Ridwan Sholahudin, S., Arjuna Aryo Setya Pratama, S., Cahyani Rizki Sendi, S., Pintor Dapot Martua Parulian Sidauruk, S., Ratnasari Hamidah, Ss., Mayor Adm Imron Rosyadi Ichsan, S., Salsabila Nadhifa Gunawan, S., & Nurul Sani Aufa Fitriannauroh Nasuha Ardhya Arifah Zahro, C. (n.d.). *Msdm Strategik: Tata Kelola Sumber Daya Manusia Strategis Penerbit Cv. Eureka Media Aksara*.

Onsardi, D., & Finthariasari, M. (n.d.). *Manajemen Sumber Daya Manusia (Strategi Meningkatkan Kinerja Karyawan) Penerbit Cv.Eureka Media Aksara*.

Sudiantini, D., Naiwasha, A., Izzati, A., Ayunia, A., Putri, B., & Rindiani, C. (n.d.). *Penggunaan Teknologi Pada Manajemen Sumber Daya Manusia Di Dalam Era Digital Sekarang. 2*(2), 262–269. https://doi.org/10.30640/digital.v2i2.1082

Utomo, Z. P., Zam, M. Z., Abimanyu, G., Simarmata, K. A., Dasman, D. M., Rahawarin, R. F., & Pritalia, G. L. (2023). *Pemanfaatan Teknologi Digital untuk Meningkatkan Pemasaran MSMES Pada Kedai Joglo Bolo Seno* (Vol. 2, Issue 1).

Widjaja, Y. S., Alamsyah, D. P., Rohaeni, H., Sukajie, B. Peranan Kompetensi SDM MSMES Dalam Meningkatkan Kinerja MSMES Desa Cilayung Kecamatan Jatinangor, Sumedang. Jurnal Pengabdian Kepada Masyarakat. Vol. 1 No. 3 Agustus 2018, Hal. 465-476.