

DEVELOPMENT OF INFORMATION TECHNOLOGY FOR MANAGING MICRO, SMALL AND MEDIUM ENTERPRISES (MSMEs)

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Abstract

The digitalization era has brought significant changes in the way of doing business, including for Micro, Small and Medium Enterprises (MSMEs). This research aims to examine the use of technology in increasing the productivity of MSMEs. Using qualitative and quantitative research methods, this study analyzes various technologies that can be adopted by MSMEs, such as e-commerce, social media, management information systems, mobile applications. Data was collected through surveys, interviews and case studies on a number of MSMEs that have successfully implemented technology in business operations. The research results show that technology adoption significantly increases operational efficiency, expands market reach, and improves the quality of MSME customer service. E-commerce and social media technologies have proven effective in increasing sales and brand awareness, while management information systems and mobile applications improve internal business processes and customer service. However, there are challenges, such as limited access to technology resources, lack of expertise in technology management, and data security issues. This research recommends building more inclusive digital infrastructure, technology training for MSME owners, and developing policies that support the MSME digital ecosystem. In conclusion, the use of technology is a critical strategy that MSMEs must implement to increase productivity and competitiveness in the global market.

Keywords: MSMEs, social media, management information systems, mobile applications.

Introduction

In the midst of the rapid development of the digital era, information technology has become an important factor that drives growth and increases productivity in various sectors, including Micro, Small and Medium Enterprises (MSMEs). However, in facing increasingly fierce competition, both in local and global markets, MSMEs often encounter various challenges, such as limited access to markets, capital and technology. Researchers looked for several journals that discuss topics like this, including: (Rezky, MI 2023) Digital payment platform, MSMEs can provide various payment options to customers. According to (Akhmad, KA, & Purnomo, S. 2021) Can improve people's lives better and wider. According to (Gunawan, B., et al, 2020) It is hoped that SMEs in Indonesia can meet product quality standards. According to (Fidela, A., et al, 2020) Business actors apply it according to business needs to increase productivity. Lastly

according to (Firdausya, LZ, et al 2023) The development of technology and digital infrastructure can help MSMEs to develop.

In order to overcome these challenges and increase competitiveness, the use of information technology is a key strategy. Technology, through e-commerce, social media, mobile applications, management information systems, and cloud computing, offers opportunities to expand markets, increase operational efficiency, and improve customer service. This study aims to examine how MSMEs can utilize information technology to increase their productivity.

Through qualitative and quantitative research approaches, this study will identify various forms of technology that can be adopted by MSMEs and measure the impact of their implementation on increasing productivity. This research will also explore the challenges faced by MSMEs in adopting technology and strategies to overcome them. Thus, it is hoped that this study can provide valuable insight for MSME owners, policy makers and practitioners in designing and implementing effective technology strategies to increase MSME productivity.

Research Methods

This research uses quantitative and qualitative approaches to analyze the effect of using technology on increasing the productivity of Micro, Small and Medium Enterprises (MSMEs). The main objective of this research is to identify specific technologies used by MSMEs and evaluate their impact on business productivity.

Quantitative Approach:

For a quantitative approach, this research collects data through online surveys distributed to MSME owners in various sectors. This survey includes questions regarding the type of technology used, frequency of use, and MSME owners' perceptions of the impact of technology on their business productivity. The data collected will be analyzed using descriptive and inferential statistics to determine the relationship between the use of technology and increased productivity.

Qualitative Approach:

The qualitative approach involves in-depth interviews with a number of MSME owners who have successfully integrated technology into their business operations. This interview aims to gain a deeper understanding of how technology is applied in daily business practices and how it helps in increasing productivity. Content analysis will be conducted on the interview transcripts to identify key themes.

Case study:

This research also includes case studies on several MSMEs that have shown significant increases in productivity through the use of technology. This case study will

explore in detail the implementation of technology, including the challenges faced and solutions found during the technology adoption process.

Data analysis:

Data obtained from surveys, interviews and case studies will be analyzed to determine patterns, relationships and the influence of technology on MSME productivity. This analysis will use statistical software and qualitative content analysis to process quantitative and qualitative data.

Using this research method, the study seeks to provide practical and evidence-based recommendations on how MSMEs can utilize technology to increase their productivity and competitiveness in the market.

Results and Discussion

This research reveals that the use of technology has a positive impact on increasing the productivity of MSMEs. From the survey conducted, respondents acknowledged an increase in operational efficiency after adopting certain technologies, such as the use of e-commerce for sales, customer management systems (CRM) for customer service, and financial applications for financial management.

In-depth interviews show that MSMEs that integrate information technology in their operations tend to be more agile in facing market changes. The use of analytical data helps them make more informed business decisions. However, challenges such as limited access to technology, lack of digital literacy, and data security issues are also serious concerns.

Discussion:

The use of technology in MSMEs is not only a tool for daily operations, but also as a business strategy to increase productivity and competitiveness. The integration of e-commerce and digital marketing offers new opportunities in reaching wider markets and more specific customer segmentation. This is line with previous research which emphasizes importance digital technology in expanding the MSME market.

Conclusion

This study reveals that the use of technology plays a role in increasing the productivity of Micro, Small and Medium Enterprises (MSMEs). Through technology such as e-commerce, social media, customer management applications, MSMEs optimize operations, expand markets and improve customer service more effectively. The research results show technology not only improves operational efficiency and flexibility but helps MSMEs identify and exploit new opportunities.

However, challenges such as limited access to technological resources, lack of digital literacy among MSME owners and employees, and data security issues are

significant obstacles. Therefore, it is important to provide adequate infrastructure, training and guidance in the use of technology.

In order to face the digital era, MSMEs must be proactive in adopting new technology and continuously updating digital knowledge and skills. Utilizing technology is no longer an option but a necessity to survive and develop in an increasingly competitive business environment. With the right approach and adequate support, MSMEs can utilize technology to achieve sustainable growth and contribute more broadly to the economy.

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