Strategies for the Utilization of Information Technology in Micro, Small, and Medium Business Marketing

Muhamad Zaenal Asikin1*, Adelia Azzahra2, Fahad Khan Afridi3

1Politeknik Siber Cerdika Internasional, Cirebon, West Java, Indonesia
2Swadaya Gunung Jati University, Cirebon, West Java, Indonesia
3Qurtuba University of Science and Information Technology, Dera Ismail Khan, Pakistan

Email: asikinzaenal103@gmail.com1, adeliaazzahra349@gmail.com2, Peshawar.fafirdi449@gmail.com3

Abstract

This study aims to examine the strategy of using information technology in MSME marketing to enhance their competitiveness in an increasingly competitive global market. The research method involves identifying and collecting literature from various relevant sources, including scientific journals, academic articles, textbooks, research reports, and conferences discussing the use of information technology in the context of MSME marketing. The findings indicate that strategies utilizing information technology, such as digital marketing, e-commerce, and social media, can help MSMEs overcome marketing challenges, increase visibility, and expand market share. The conclusion of this study is that MSMEs that successfully adopt information technology in their marketing strategies can enhance their competitiveness and business sustainability in the global market. This research emphasizes the importance of education and training for MSMEs to leverage information technology effectively.

Keywords: Information Technology, Entrepreneurship, MSME, Business Marketing.

INTRODUCTION

In the era of globalization and the rapid development of information technology, micro, small, and medium enterprises (MSMEs) play a crucial role in the local and global economy (Day et al., 2024; Utami et al., 2021). MSMEs account for more than 50% of total employment in most countries and significantly contribute to global economic growth (Hapsari et al., 2014). In Indonesia, MSMEs contribute approximately 60% of the gross domestic product (GDP) and create over 97% of employment opportunities (BPS, 2023). The accelerated digital transformation driven by the advancement of information technology has impacted various aspects of human life, including the business world (Jung & Kim, 2023; Xiang et al., 2024).

In recent decades, information technology development has changed how MSMEs operate. Information Technology no longer functions only as an operational support tool but also as an
important marketing strategy (Gliga & Evers, 2023). Various technologies such as e-commerce, social media, data analytics, and digital marketing have become integral to MSMEs' efforts to achieve their marketing goals more effectively (Asikin Amelia et al., 2024; Liang et al., 2024).

One of the important aspects of this digital transformation is the ability of MSMEs to overcome geographical and economies of scale constraints that may be obstacles to reaching a wider market (Asikin, Fadilah, et al., 2024; Moradi & Dass, 2022). With the adoption of technology such as e-commerce platforms, MSMEs can reach consumers outside of their local areas more efficiently (Dlamini et al., 2024). This increases their sales potential, expands their customer base, and strengthens their competitiveness in an increasingly global market.

However, the implementation of information technology in the context of MSME marketing is not without challenges. MSMEs often face limited resources, both financially and in terms of technical expertise (X. Ma & Gu, 2024). Many MSMEs, especially those operating on a small scale, struggle to adopt adequate technology or hire personnel with the necessary skills to manage complex information technology systems (Mero et al., 2023). Additionally, adopting information technology carries data security and consumer privacy risks. MSMEs must increase their awareness and capacity to manage these risks and comply with regulations to protect customer data and build trust (Azzahra et al., 2024; Mudjahidin et al., 2024).

This research is crucial given the rapid changes in technology and the market that can affect the sustainability of MSMEs if they do not adapt promptly. Moreover, with increasing global competition, MSMEs must leverage information technology to remain competitive. Failure to do so may result in them lagging and missing significant market opportunities (S. Chatterjee & Kumar Kar, 2020; Rizvanović et al., 2023).

Previous research by Azizah (2019) indicated that MSME managers in Surabaya did not experience significant issues in accessing technology materials but lacked skills, especially in information search strategies. Research by Afifah (2023) showed that financial literacy, the use of information technology, and accounting information systems positively impact MSME performance. However, these studies did not specifically address effective digital marketing strategies for MSMEs. The novelty of this research lies in its focus on identifying effective strategies for using information technology in MSME marketing in Indonesia and evaluating its impact on MSME business performance, aiming to fill the existing gap by providing practical guidelines for MSMEs.

The study seeks to identify effective strategies and evaluate their impact while also understanding the challenges and opportunities MSMEs face in adopting information technology. Expected benefits include improved operational efficiency and sales for MSMEs, more targeted policies for government support, contributions to academic literature, and practical marketing strategies for business practitioners. Practical implications involve the formulation of government policies to support MSME digital transformation, enhancement of MSME marketing strategies, and the development of educational curricula related to entrepreneurship and information technology.
LITERATURE REVIEW

Resource Based View

Researchers use the Resource View theory to evaluate how information technology can be used to improve the competitiveness of MSMEs (Arjang et al., 2023). RBV looks at ways an organization can achieve competitive advantage through efficient utilization of internal resource factors. Information and communication technology (ICT) is one of the resources that small businesses can use to achieve competitive advantage. There are many ways through which ICT could enhance the efficiency and effectiveness of MSMEs. Improvements in operational processes plus supply chain management, access to customers and markets, and the ability to operate in more than one region. In examining information and communication technology (ICT) resources and capabilities possessed by MSMEs, this study will adopt the RBV approach (Agus Zainul Arifin, 2020).

Information and Communication Technologies (ICT)

Many different types of internet-based, electronic, digital tools, systems, programs, software, and hardware—referred to as information and communication technologies (ICTs)—are designed to increase productivity while minimizing the effort expended (Dobrica et al., 2023). These are the tools and technologies that help produce, reproduce, process and transmit pieces of information. In this research, these technologies refer to desktop computers, laptops, mobile apps, online social networks, inventory and productivity management tools at the workplace or even accounting software. The integration of ICTs in the operations of a business has brought about tremendous changes in the functioning of companies and interaction with their stakeholders. In business organizations, the Aims are to benefit improvements regarding communication, efficiency, plus productivity as well as to have a competitive advantage (Azeem et al., 2021). Information and communication technologies (ICTs) have significantly changed external and internal communication within an organization, which is first and foremost important for the success of the business (I. Chatterjee & Chakraborty, 2021). Automation, less redundancy, and fewer mistakes are all possible outcomes of businesses' use of ICTs. This facilitates better resource management, less waste, and operational optimization for businesses. In addition, ICTs boost business efficiency (Borghesan et al., 2022). Employees can do their jobs whenever and wherever they choose thanks to ICTs. This allows people more leeway and makes it easier for them to maintain a healthy work-life balance. Additionally, businesses may access data in real-time using ICTs, which helps with decision-making.

Information Technology uses in MSME of Indonesia

In Indonesia, the growth of micro, small, and medium-sized businesses accounts for around 70.3% of the workforce and contributes about 60.34 percent to the GDP (Hartika et al., 2023). According to Lukman and Bin (2023), this endeavour continued even after the economic crisis started in 1998. Small and medium-sized enterprises (SMEs) must constantly reinvent software solutions for effective administration, oversight, and financial statement preparation if they want to stay up with worldwide advances characterized by digital transformation (software). There are several interconnected parts to software usage. According to (Bukht & Heeks, 2017), the evolution
of digital technology encompasses merchandise, applications, networks, services, sales, and media.

When compared to other business sizes, microbusinesses have the highest number of instances. In 2019, 98.68%, or 64.6 million microbusiness units, were present. Given this large figure, microbusinesses do play an important role in creating jobs. The number of people employed by microbusinesses in 2019 was 109.8 million, or 89.04% of the total. This highlights the significance of microbusinesses to Indonesia's economy. Microenterprises have the ability to fuel economic activity and provide income for most people in society because of their enormous potential. According to Arief et al. (2023), microbusinesses and other micro, small, and medium-sized enterprises (MSMEs) are vital to Indonesia's economy. A good example of a province whose economy is strongly supported by MSMEs is West Java Province. Medium-sized and small-scale enterprises (MSMEs) account for 90% of West Java's GDP. At the same time, MSMEs barely account for half of Banten's economic output as compared to Banten Province. The fact that micro, small, and medium-sized enterprises (MSMEs) played a key role in the formation of the economy via the MSME sector and the creative industries is another proof of their economic impact. There was an 80% increase in GDP in 2019 from MSMEs. Because of the impact of ever-improving technology, today's corporate competitiveness is growing at a rapid pace. Businesses now act differently as a result of advancements in information and communication technology. In this digital age, people can't live in isolation. Many industries, including manufacturing, advertising, and distribution, have seen paradigm shifts as a result of internet use (Mohzana et al., 2023).

People can get their hands on the things they need faster and easier thanks to the internet. Determinants of small and medium-sized enterprise (SME) revenue, specifically: cash: To run their day-to-day operations and generate as much profit as possible, businesses need cash. The market's circumstances are influenced by the market's type, the buyers' group, the market's location, the buyers' frequency, and the buyers' preferences. A trader's skill, or more specifically, their capacity to persuade customers to purchase their goods and generate the anticipated revenue. According to the law of supply and demand, a company's bottom line will grow in direct proportion to its size. Seller income may be influenced by several aspects, including advertising, product quality, branding, packaging, and service (Agostini et al., 2021). By the year 2021, 203 million people in Indonesia will be using the internet. The number of internet users in Indonesia continues to rise annually. There has been an increase of 27 million, or 11%, since 2020, which proves this. At least 74% of Indonesians were online that year. In 2020, the province of West Java had the greatest number of internet users in all of Indonesia, with 35 million. Central Java is second with 27 million people, while East Java is third with 26 million. Because there are so many people in West Java who have access to the internet, this will increase in direct correlation with the growth of businesses doing business online.

Consumers and corporations may be enticed to do business online due to the increasing number of internet users. Businesses that operate primarily on the Internet are known as engaging in electronic commerce, or e-commerce. Electronic commerce involves many parties, including manufacturers, retailers, consumers, intermediaries, and ISPs (Suwarni & Salim, 2023). When
doing business, traders will use electronic procedures that make use of electronic technology. Therefore, there is already a legal framework in place, allows business operators to use e-commerce with confidence. Over 14 million micro, small, and medium-sized enterprises (MSMEs) will make use of digital platforms in the year 2021. Approximately 23% of MSMEs offer their wares online, which is a very small percentage when broken down by total MSMEs. With the use of digital platforms, the government hopes to reach its goal of 30 million MSMEs by the year 2024. To do this, business players need only move their operations online (Ohara et al., 2024).

RESEARCH METHODS

The research employs a systematic literature review methodology to explore the use of Information Technology in MSME marketing. The process begins with identifying and collecting relevant literature from academic databases such as Google Scholar, JSTOR, IEEE Xplore, ProQuest, peer-reviewed journal articles, and conference reports. Selection criteria include relevance to the research topic, information quality, and publication within the last 10 years, with a focus on English and Indonesian literature. Keywords such as "Information Technology," "MSME marketing," and "digital marketing" are used in searches, employing Boolean operators to refine results.

Data extracted from selected literature is analyzed thematically to identify key patterns and trends related to Information Technology’s role in MSME marketing. This involves screening and extracting data through two independent reviewers to minimize bias and ensure objectivity. Findings are then synthesized to provide a comprehensive overview of current practices, challenges, and solutions in the field. The systematic approach aims to deliver reliable and in-depth insights while identifying areas for further research.

RESULT AND DISCUSSION

The use of information technology as a marketing tool for micro, small, and medium enterprises (MSMEs) can provide flexibility in production, enable faster delivery of software products to customers, send and receive offers quickly and economically, and support transactions without fast paper.

Use of E-Commerce Platforms

In supporting the success of small and medium enterprises (MSMEs) in Indonesia, e-commerce platforms are very important to support business activities. Maulidina's research results (2024) show that MSMEs that are active on e-commerce platforms are able to increase their market reach significantly. They can reach consumers not only at the local level but also nationally and even internationally, depending on the scale of their operations and the products they offer.

<table>
<thead>
<tr>
<th>It</th>
<th>Platform E-Commerce</th>
<th>MSME Support</th>
<th>Business Model</th>
</tr>
</thead>
</table>

Table 1. Model Platform E-Commerce
<table>
<thead>
<tr>
<th>Bukalapak</th>
<th>Since the end of 2017, launched partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Bukalapak makes stall owners partners in selling digital products (credit, data packages, electricity tokens, PDAM reserves, BPJS, etc.). Until now, Bukalapak has collaborated with 500 thousands stall partners and 700 thousand individual agents/independent business actors.</td>
<td></td>
</tr>
<tr>
<td>• It has a hawker community spread across 150 cities with members of around 5,000 people.</td>
<td></td>
</tr>
<tr>
<td>• There is a special team (community management) to assist the traders so that if there is input or problems, it will be easily conveyed.</td>
<td></td>
</tr>
<tr>
<td>• In 2019, Bukalapak allocates Rp 1 trillion to develop Bukalapak’s partner platform.</td>
<td></td>
</tr>
<tr>
<td>• Bukalapak has features that merchant can purchase to improve their business performance, such as ads and dashboards.</td>
<td></td>
</tr>
<tr>
<td>• Profit sharing with Bukalapak partners: If customers buy digital products from partners at Bukalapak, the profits will be shared with Bukalapak.</td>
<td></td>
</tr>
<tr>
<td>• Exist &quot;Priority Purchases&quot; feature for Bukalapak customers, which can be purchased for some benefits (free of charge sent multiple times, cashback, special price for subscription TV, etc)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tokopedia</th>
<th>In 2018 Tokopedia launched</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Tokopedia partner application that allows grocery stores to sell digital products such as credit, electricity tokens, PDAM bills, BPJS, Telkom, Game Vouchers, and others.</td>
<td></td>
</tr>
<tr>
<td>• In 2018, Tokopedia Centers in several regions in Indonesia were established with the purpose of educating sellers by training them to use the platform and how to do product branding and marketing.</td>
<td></td>
</tr>
<tr>
<td>• Holding a Makerfest to support local brands and creators to compete on a national scale.</td>
<td></td>
</tr>
<tr>
<td>• It will build warehousing facilities in a number of regions so that the delivery of products from MSMEs to buyers is more effective and efficient</td>
<td></td>
</tr>
<tr>
<td>• Tokopedia provides a variety of Advertising Services features and services for the Dashboard view shop.</td>
<td></td>
</tr>
<tr>
<td>• Feature Power</td>
<td></td>
</tr>
<tr>
<td>• Merchant (subscription plans that offer a variety of features Premium Seller Only). There is also a feature called Byme that allows the store to have its own endorsers.</td>
<td></td>
</tr>
<tr>
<td>• Tokopedia also gets commissions from logistics partners and partners from several digital and fintech products.</td>
<td></td>
</tr>
</tbody>
</table>

Source: Ardiansyah (2020)

From the data presented about the Bukalapak and Tokopedia e-commerce platforms in supporting Micro, Small, and Medium Enterprises (MSMEs), it can be concluded that both have taken strategic steps to expand the reach of the MSME market, especially through the sale of digital products. Bukalapak, by involving stall partners as sellers, has formed a wide community and
provides active support through a community management team to assist vendors. They also offer optional features that can improve business performance, such as ads and dashboards, and implement profit sharing with partners to strengthen partnerships. Meanwhile, Tokopedia focuses on education and training through the Tokopedia Centre, Makerfest, and other programs to support MSMEs in branding and marketing their products.

Tokopedia also provides various advertising services and premium features for sellers and plans to build warehousing facilities to improve the efficiency of MSME product delivery. These two platforms demonstrate a strong commitment to developing the MSME ecosystem through deep IT integration, making a positive contribution to local economic growth. With these strategies, Bukalapak and Tokopedia act as digital transaction platforms and agents of change in the MSME ecosystem in Indonesia. They empower MSMEs by facilitating wider market access and providing the infrastructure and knowledge needed to compete effectively in the digital era. Innovative measures such as profit sharing, premium features, and education and training reflect a long-term commitment to improving the capabilities and competitiveness of MSMEs in the face of increasingly complex global economic challenges. It is hoped that this approach will continue to have a positive impact in strengthening the MSME-based economy in Indonesia and encouraging wider digital inclusion among small and medium business actors.

Utilization of Social Media

Social media, in particular, has various advantages in promotional activities. For example, conveying information to consumers does not require cost and effort, and even the time used to convey information to many people is very short (Borah et al., 2022). Social media has become a very effective tool in building relationships with consumers and promoting products directly. Marketing strategies through platforms such as Facebook, Instagram, and LinkedIn allow MSMEs to interact directly with potential customers and build strong brand awareness (Fraccastoro et al., 2021; Rakshit et al., 2021).

One of the main advantages of using social media is its ability to create a closer and more personal relationship between MSMEs and their customers. By sharing relevant and engaging content, MSMEs can build a loyal community that is active and engaged in social media platforms. This direct interaction not only increases brand awareness but also allows MSMEs to get valuable feedback in real-time from their customers, allowing for more effective marketing strategy adjustments (Cao & Weerawardena, 2023; Meier & Peters, 2023; Wisessathorn et al., 2022).

In addition, social media also provides MSMEs with wider access to the global market without significant geographical restrictions. With the ability to target audiences based on online preferences, interests, and behaviors, MSMEs can optimize their marketing campaigns to reach the right market segments. The use of analytics tools provided by social media platforms also allows MSMEs to measure the performance of their campaigns, track ROI (Return on Investment), and make data-driven decisions to improve their marketing effectiveness (Qalati et al., 2021; Sedalo et al., 2022).

However, the use of social media also requires MSMEs to have a targeted and consistent strategy. It takes relevant, creative, and consistent content to keep followers interested and
engaged. In addition, MSMEs need to understand the rules and ethics of using social media so as not to violate applicable provisions and maintain their online reputation. By combining creativity, data analysis, and effective communication, the use of social media can be one of the strong strategic pillars in expanding market reach, building brands, and increasing sales for MSMEs in this digital era (Hassani & Mosconi, 2022; Zhang & Zhu, 2021).

**Digital Marketing**

According to Hossain et al. (2022), digital marketing has become a crucial strategic foundation for SMEs in facing increasingly competitive market challenges in the digital era. They identify various online techniques included in digital marketing, such as Search Engine Optimization (SEO), Search Engine Marketing (SEM), social media marketing, email marketing, and content marketing. This research emphasizes that the effective use of these strategies allows SMEs to enhance their visibility in the digital market and reach a wider, relevant audience.

Mujalli et al. (2024) further highlight the importance of SEO, which focuses on improving website rankings in organic search results, and SEM, which involves paid advertising on search engines, in attracting more traffic to SME websites. They also underscore the role of social media marketing in building an engaged and loyal community through engaging content and direct interaction with followers. Additionally, email marketing and content marketing are considered effective tools for direct customer communication and industry authority building, which can increase brand awareness and conversion rates.

Besides SEO, SEM is also an important component of digital marketing. Through the use of paid advertising on search engines such as Google Ads, MSMEs can promote their products and services directly to users who are searching for related information on the Internet. SEM allows MSMEs to target audiences based on specific keywords and measure the results of their campaigns more measurably and quickly (Gabelaia & Tchelidze, 2022; Mladenović et al., 2023).

Digital marketing strategies also include social media marketing, where MSMEs can leverage their presence on platforms such as Facebook, Instagram, LinkedIn, and Twitter to build an engaged and loyal community (Ohara et al., 2024). MSMEs can expand their brand reach and build closer relationships with consumers by sharing engaging content, holding contests or giveaways, and interacting directly with followers (Canhoto et al., 2021).

In addition, email marketing remains one of the most effective ways to communicate directly with customers. By collecting relevant customer databases, MSMEs can send newsletters, special promotions, or the latest information about their products and services. Message personalization and analysis of email marketing campaign performance also help MSMEs increase conversion rates and build customer loyalty (Carbonara et al., 2024; Djiu et al., 2024).

The use of content marketing is also crucial in digital marketing, where MSMEs can create value-added and informative content to attract the interest of potential consumers. MSMEs can build authority in their industry through blogs, videos, infographics, or ebooks and organically increase brand awareness. Analyzing the audience's response to content also helps MSMEs optimize their future content strategy (Fitriani et al., 2023; C. Ma et al., 2023; Martini et al., 2023).

Overall, the implementation of digital marketing gives MSMEs a powerful tool to compete
in this increasingly connected and digital market. By effectively understanding and implementing various digital marketing strategies, MSMEs can expand their market share, increase sales, and build strong relationships with consumers while remaining relevant in the ever-changing and evolving digital era.

**CONCLUSION**

Based on the results of the study, by combining and optimizing the above strategies, MSMEs can effectively utilize Information Technology to overcome marketing challenges and increase their competitiveness in an increasingly competitive global market. While some technical and operational challenges need to be addressed, the long-term benefits of investing in IT for MSME marketing clearly outweigh the costs and effort required. Therefore, a holistic approach to the use of Information Technology in marketing strategies is the key to the success of MSMEs in this digital era.

**REFERENCES**


Azzahra, A., Savandha, S. D., & Olubisi, M. G. (2024). Effective Strategies for Corporate


digital marketing impact and start-up growth: Developing a macro-dynamic framework of start-up growth drivers supported by digital marketing. Technological Forecasting and Social Change, 186. https://doi.org/10.1016/J.TECHFORE.2022.122128

Copyright holders:
Muhamad Zaenal Asikin, Adelia Azzahra, Fahad Khan Afridi (2024)
First publication right:
AJEMB – American Journal of Economic and Management Business