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Role of Technology Utilization and Product Quality on Competitive Advantage of Micro, Small and Medium Enterprises (MSMEs)

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Abstract: The article on the role of technology utilization and product quality on the competitive advantage of micro, small and medium enterprises (MSMEs) is a scientific literature review article within the scope of marketing management science. The purpose of writing this article is to build a hypothesis of the influence between variables which can later be used for further research within the scope of marketing management science. The research method used is descriptive qualitative. Data was obtained from previous research that is relevant to this research and sourced from academic online media such as Publish or Perish, Google Scholar, digital reference books and Sinta journals. The results of this article are: 1) Technology utilization plays a role in the competitive advantage of MSMEs; and 2) Product quality plays a role in the competitive advantage of MSMEs.

Keyword: Competitive Advantage MSMEs, Technology Utilization, Product Quality

INTRODUCTION

In the contemporary digital era, MSMEs reflect more complicated business dynamics and more intense rivalry. In many nations, Micro, Small, and Medium-Sized Enterprises (MSMEs) play a critical role in employment creation and regional economic development. But it can be difficult for MSMEs to compete with big businesses, particularly when it comes to using technology and producing high-quality products. First and foremost, it's critical to acknowledge that technology has played a significant role in forming the contemporary business environment. Information and communication technology (ICT) advancements like e-commerce, mobile applications, and the internet have altered how MSMEs conduct business and engage with clients. Competitive advantages in terms of operational effectiveness, internet marketing, supply chain management, and customer service can be obtained by utilizing this technology. Nevertheless, there are still obstacles to overcome before MSMEs can fully embrace and use technology, including expensive implementation fees, restricted access, and a lack of expertise.

In addition, another important consideration in evaluating MSMEs' competitiveness is the caliber of their products. Consumers today have high standards for product quality, which includes dependability, creativity, design, and user experience. In order to satisfy the ever-tougher demands of the market, MSMEs must concentrate on producing high-quality products. This entails funding R&D, choosing premium raw materials, and establishing effective, premium production procedures. Given the significance of using technology and improving product quality for MSMEs' success, extensive research is required to examine the connection between these two elements and MSMEs' competitive advantage. The degree to which MSME product quality is impacted by technology adoption, the ways in which product quality affects customer perception and competitive advantage, and the most effective approaches for boosting technology use and improving product quality among MSMEs are among the questions that need to be addressed. Based on the background of the problem above, the problem formulation is determined as follows: 1) Does the use of technology play a role in the competitive advantage of micro, small and medium enterprises?; and 2) Does product quality play a role in the competitive advantage of micro, small and medium enterprises?.

METHOD

The Literature Review essay was written using Library Research techniques and Systematic Literature Review (SLR). These methods are evaluated qualitatively and are available in academic web resources like Mendeley and Google Scholar. A systematic literature review, or SLR, is the process of locating, assessing, and analyzing all accessible research data with the aim of responding to a particular research issue. In qualitative analysis, literature reviews ought to be applied consistently with methodological presumptions. The exploratory nature of the research serves as the primary justification for conducting qualitative analysis (Ali, H., & Limakrisna, 2013).

RESULTS AND DISCUSSION

Results

The context, problem design, and methodology of this paper have led to the following outcomes:

Competitive Advantage of Micro, Small and Medium Enterprises (MSMEs)

The capacity of Micro, Small, and Medium-Sized Enterprises (MSMEs) to set themselves apart from rivals in a competitive market is known as the MSME competitive advantage. An MSME's competitive edge is more than just providing comparable goods or services; rather, it is a confluence of attributes that increase its customer appeal, operational effectiveness, and ability to adapt to changing market conditions. This could include innovative products or services, higher quality, competitive pricing, excellent customer support, a well-known brand, or easier accessibility (Wijaya & Simamora, 2022).

The following are some of the indicators of MSMEs' competitive advantage: 1) Innovation in Products or Services: One of the primary markers of MSME competitive advantage is innovation. MSMEs with a strong competitive edge are those who can develop brand-new goods or services or find innovative ways to enhance already-existing ones. Novel features, eye-catching designs, or approaches that address the demands of developing markets are examples of innovations; 2) Competitive Prices: Another crucial sign of MSMEs' competitive edge is their competitive prices. Competitive pricing can be a major difference in a market that is highly competitive, even while it is not the sole factor driving purchasing decisions. MSMEs must be mindful of striking a balance between profitable prices and profitability; and 3) Robust Brand Reputation: MSMEs can get a substantial competitive edge from a robust brand reputation. Consumers are more likely to pay attention to and trust well-

known brands in the marketplace. Additionally, a strong brand reputation might make it easier for MSMEs to overcome obstacles or get through challenging times (Novitasari et al., 2021).

Numerous researchers have examined MSMEs' competitive advantage, among them: (Novitasari et al., 2021), (Wijaya & Simamora, 2022), (Wibowo et al., 2015).

Technology Utilization

Technology utilization is the process by which people apply their knowledge, abilities, and technological resources to resolve issues, boost productivity, and provide value to a variety of spheres of life. This entails utilizing an array of instruments, programs, and frameworks intended to streamline operations, enhance correspondence, handle data, and augment human potential in domains including business, academia, healthcare, and transit, among others (Cendana, 2019).

The following are some of the indicators of technology utilization: 1) Innovation: One key measure of technology use is the degree of innovation in the creation of new products, services, or technologies. The quantity of patent applications filed, R&D expenditures, and the rate at which new products are developed are all indicators of innovation; 2) Increased connections and communication between people, organizations, and nations can also be used to gauge how much technology is being used. Internet penetration, social media use, the volume of calls and messages, and the availability of information and digital resources are some examples of these metrics; 3) Accessibility and affordability: The ease and affordability with which society can acquire technology is a significant determinant. These include of having access to the internet, the cost of software and hardware, and the accessibility of computer and telecom infrastructure; and 4) Productivity and Efficiency: The use of technology must be able to boost productivity and operational efficiency across a range of industries, including agriculture, industry, health, and education. Increasing output per working hour, cutting production expenses, and raising the caliber of goods or services are some examples of these indicators (Rasyid, 2017).

Numerous researchers have examined technology utilization, among them: (Cendana, 2019) and (Rasyid, 2017).

Product Quality

Product quality refers to a variety of features and qualities that impact a product's utility, value, and customer satisfaction. Product quality encompasses more than just its outward appearance; it also involves attributes like performance, dependability, durability, safety, and the capacity to either meet or surpass customer expectations. This covers the caliber of the product's material and physical construction as well as the caliber of the user's interaction with it (Mahaputra & Saputra, 2021).

The following are some of the indicators of product quality: 1) Manufacturing Consistency: This metric assesses how uniformly and consistently high-quality items are produced throughout various manufacturing batches. Ensuring that all manufactured goods meet the same standards is crucial; 2) Reliability: is the capacity of a product to function continuously and damage-free over an extended length of time. This covers the rate of product failure, the length of the service life, and the necessary maintenance level; 3) Design and Aesthetics: Both appealing design and well-executed aesthetics are significant markers of high-quality products. It encompasses elements that can improve the user experience, such as ergonomics, visual appeal, and practicality in design; and 4) Performance: A product's capacity to meet or surpass user expectations in terms of functionality is referred to as its performance. This can include the product's responsiveness to usage, strength, durability, speed, and efficiency (Saputra, Khaira, et al., 2023).

Numerous researchers have examined product quality, among them: (Saputra, Khaira, et al., 2023), (Mahaputra & Saputra, 2021), (Marbun et al., 2022).

Relevant Previous Research Results

Examining relevant literature to generate research hypotheses by summarizing earlier findings and emphasizing how they relate to and diverge from the research proposal, as shown in table 1 below:

Table 1. Relevant Previous Research Results

| No | Author (Year) | Research Results | Similarities with this article | Differences with this article | H |
|----|---------------------------|---|---|---|----|
| 1 | (Cendana, 2019) | Utilization of social media as a promotional strategy for the sustainability of MSMEs | The influence of technology use on the competitive advantage of MSMEs | The influence of promotional strategies on the competitive advantage of MSMEs | H1 |
| 2 | (Wijaya & Simamora, 2022) | Information Technology Capability and Innovation Capability for the Competitive Advantage of Culinary MSMEs | The influence of technology use on the competitive advantage of MSMEs | The Influence of Innovation Capability on the Competitive Advantage of Culinary MSMEs | H1 |
| 3 | (Noviani, 2020) | Product innovation, product creativity and product quality influence competitive advantage | The influence of product quality on competitive advantage | The influence of product innovation and creativity on competitive advantage | H2 |
| 4 | (Novitasari et al., 2021) | Innovation and Product Quality influence Competitive Advantage | The Influence of Product Quality on Competitive Advantage | The Influence of Innovation on Competitive Advantage | H2 |

Discussion

This literature review article's objectives are to examine relevant literature, examine the correlations between variables, and offer conceptual frameworks for future research projects. This is predicated on research in theory:

1. The Role of Technology Utilization to MSME's Competitive Advantage

Technology use significantly contributes to MSMEs' increased competitive advantage through a number of means, such as increased productivity and efficiency, increased connections and communication between individuals, organizations, and nations, accessibility and affordability, and innovation in products and services. First, MSMEs may innovate goods and services more effectively and efficiently thanks to technology. MSMEs can create new concepts, create superior goods or services, and swiftly and effectively adjust their products to changes in the market by utilizing technology.

Furthermore, enhancing ties and communication between MSMEs and clients, vendors, and other business partners is facilitated by the use of technology. MSMEs can use social media, websites, and e-commerce platforms to build stronger client relationships, get direct feedback, and better understand their needs. Technology also makes it possible for MSMEs to interact effectively with their business partners and suppliers, which promotes improved teamwork and cooperative problem solving. Finally, MSMEs can become more productive and efficient in their operations by utilizing technology. MSMEs can streamline their business operations, save operating expenses, and boost worker productivity by implementing business management software, automation systems, and cloud-based technologies. Technology can also be used in the supply chain to improve efficiency, expedite delivery, and lower the possibility of delays or shortages of supplies.

According to research by: (Tri Murti et al., 2021) and (Rasyid, 2017), MSMEs' competitive advantage stems from their utilization of technology.

2. The Role of Product Quality to MSME's Competitive Advantage

Product quality plays a major part in MSME competitive advantages, such as product or service innovation, competitive pricing, and brand reputation. It encompasses manufacturing consistency, reliability, design and aesthetics, and performance. Customer trust in MSMEs is increased when there is good production consistency, which guarantees that the products satisfy consistently high quality requirements. Customer loyalty is increased by product reliability, which includes longevity and resistance to wear and tear since users can depend on the product for an extended length of time.

In addition to improving a product's visual attractiveness, appealing design and aesthetics also give consumers a positive experience, which helps build brand loyalty and customer distinction. Better functionality and efficiency in products not only boosts consumer satisfaction but also enables MSMEs to provide more creative and effective solutions, setting them apart from rivals and solidifying their place in the market. Therefore, having high-quality products is essential for MSMEs to gain a competitive edge since it lays the groundwork for innovation, competitive pricing, and the development of a favorable brand image among customers.

According to study by: (Novitasari et al., 2021), (Jumawan et al., 2023), (Jamal Ali et al., 2018) and (Soesanto et al., 2023), MSMEs' competitive advantage is influenced by the quality of their products.

Conceptual Framework

The process of developing conceptual framework based on the problem formulation, relevant prior research, the findings of that study, and above discussion is depicted in Figure 1:



Figure 1. Conceptual Framework

Utilizing the conceptual framework depicted in Figure 1, MSMEs' competitive advantage is influenced by their utilization of technology and high-quality products. Other factors affect MSMEs' competitive advantage in addition to the two mentioned above:

- 1) Price: (Saputra & Mahaputra, 2022), (Mahaputra & Saputra, 2021), (Gunawan et al., 2023).
- 2) Place: (Gunawan et al., 2023), (Dwi Firmansyah et al., 2023), (Saputra, Mahaputra, et al., 2023), (Ali et al., 2023), (Widjanarko et al., 2023).
- 3) Service Quality: (Khaira et al., 2022), (Jumawan et al., 2023), (Mahaputra, 2020).
- 4) Promotion: (Ali et al., 2018), (Richardo et al., 2020), (Mappesona et al., 2020), (Hamdan et al., 2023), (Nursal et al., 2023), (Saputra & Sumantyo, 2023).

CONCLUSION

The following are some of the findings drawn from the problem's background, formulation, prior research, conceptual framework, and above discussion:

- 1) Technology utilization plays a role in the competitive advantage of MSMEs.
- 2) Product quality plays a role in the competitive advantage of MSMEs.

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