

The Role of Creativity and Information Technology in Product Diversification and Its Implications for Increasing MSME Profits

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Abstract. In today's era of globalization and digitalization, MSMEs face significant challenges to remain competitive and relevant in an increasingly dynamic market. Product diversification is one key strategy that can help MSMEs address these challenges. This study aims to explore how creativity and information technology can be utilized to support product diversification and increase MSME profits. The research method is a literature review with a qualitative approach. Data is taken from Google Scholar with a publication date range from 2011 to 2024. The study results show that creativity and information technology play a crucial role in product diversification and increasing MSME profits in Indonesia. Creativity enables MSMEs to develop innovative products that stand out in the market, while information technology supports this process by providing tools and platforms for more efficient design, production, and marketing. Case studies such as Batik Fractal, KainKain, Maicih, and Danjyo Hiyoji demonstrate how the integration of creativity and information technology can produce products that are not only appealing but also meet the evolving needs of the market. The use of big data, digital marketing, and IT-based supply chain management systems has proven to enhance operational efficiency and expand market reach, positively impacting revenue and profit growth.

Keywords: Creativity, Information Technology, Product Diversification, Increasing MSME Profits

1. Introduction

In today's era of globalization and digitalization, MSMEs face significant challenges to remain competitive and relevant in an increasingly dynamic market. Product diversification is one key strategy that can help MSMEs address these challenges. Product diversification is the process of introducing various new products to meet diverse consumer needs and preferences, expand market share, and reduce business risks associated with dependency on a single product type or specific market [1].

Creativity is a vital element in the product diversification process. Creativity enables MSMEs to generate new, innovative, and unique ideas that can be implemented in the form of new products appealing to consumers [2]. Creativity also provides MSMEs with the ability to be more responsive to market trends and changes in consumer preferences, allowing them to quickly adapt and meet market demands. Leveraging creativity allows MSMEs to create added value in their products, increase competitiveness, and differentiate themselves from competitors.

Information technology (IT) has transformed the way MSMEs operate, especially in terms of product diversification. The use of IT enables MSMEs to enhance operational efficiency, reduce production costs, and improve product and service quality [3]. IT also provides tools and platforms that allow MSMEs to conduct market research more effectively, identify consumer trends, and develop products that better meet market needs. Through the adoption of IT, MSMEs can access the necessary information to develop smarter and more targeted product diversification strategies.

The integration of creativity and information technology can provide significant competitive advantages for MSMEs. Information technology supports the creative process in product development and assists in the implementation and marketing of new products [4]. MSMEs can leverage data and analytics to make better



decisions about which products to develop and the best ways to market them using IT. This allows MSMEs to use resources more efficiently and effectively reach their target markets.

Product diversification driven by creativity and supported by information technology can positively impact MSME profit growth. New, innovative products that align with market needs can attract more consumers and increase sales [5]. Additionally, the efficiency gained from using information technology enables MSMEs to reduce operational costs and increase profit margins. Product diversification also helps MSMEs reduce business risks by not relying too heavily on one product or market, thus creating better financial stability.

In Indonesia, MSMEs have shown how creativity and information technology can be used to drive successful product diversification. Real-world examples can be found in various industries, from handicrafts to high technology. For instance, MSMEs in the handicraft sector have used social media and e-commerce platforms to introduce creative new products and reach global markets [6]. In the technology sector, MSMEs have utilized software and digital tools to develop innovative new products and enhance their operational efficiency [7].

The government and supporting institutions also play an essential role in encouraging the use of creativity and information technology by MSMEs. Training programs and technical assistance can help MSMEs develop the necessary skills to manage the creative process and use information technology effectively. Support in the form of access to financing and tax incentives can also encourage investment in product diversification and the adoption of information technology by MSMEs. In this context, it is essential to continuously explore and understand how creativity and information technology can be synergistically used to support product diversification and increase MSME profits. In-depth research and case studies can provide valuable insights into best practices and effective strategies that MSMEs in various sectors can adopt to achieve sustainable growth and enhance their competitiveness in the global market.

1.1. Creativity

Creativity is the ability to generate new, original, and useful ideas through imaginative and innovative thinking [8]. It involves a mental process that allows an individual or organization to view problems or situations from different perspectives and find unique solutions. Creativity is often associated with innovation, where new ideas are applied to create new products, services, or methods that enhance value and relevance in the market. In a business context, creativity is crucial as it enables companies to evolve and adapt to market changes, meet ever-changing consumer needs, and remain competitive in a dynamic environment [9].

1.2. Information Technology (IT)

Information Technology (IT) is a field that involves the use of computers, software, networks, and other electronic devices to manage, process, store, and disseminate information [10]. IT encompasses various aspects such as software development, database management systems, computer networks, cybersecurity, and data analytics. By leveraging IT, organizations can improve operational efficiency, speed up communication, support better decision-making, and provide more responsive services to customers. In the business world, IT plays a critical role in innovation, enabling the automation of business processes, data analysis for marketing strategies, and enhancing productivity and collaboration in the workplace [11].

1.3. Product Diversification

Product diversification is a business strategy where a company introduces various new products into its portfolio to meet diverse consumer needs and preferences and to reduce business risks [12]. By diversifying products, companies are no longer reliant on a single type of product or market but can explore new opportunities in different markets [13]. This strategy allows companies to expand market share, increase sales, and optimize revenue. Product diversification also helps companies to be more responsive to changes in market trends and consumer demands, thus maintaining competitiveness and business sustainability in the long term.

1.4. Increasing MSME Profits

Increasing MSME profits refers to the efforts and outcomes of strategies implemented by Micro, Small, and Medium Enterprises (MSMEs) to boost their financial gains [14]. This can be achieved through various methods such as product diversification, operational efficiency, improving product or service quality, penetrating new markets, and adopting information technology. By increasing profits, MSMEs can strengthen their financial position, enable reinvestment in the business, drive growth, and enhance competitiveness in the market. Profit growth also contributes to the long-term sustainability of MSMEs, providing stability and opportunities for further expansion [15].

2. Method

This research method is a literature review with a qualitative approach aimed at identifying and analyzing the role of creativity and information technology in product diversification and its implications for increasing MSME profits, using descriptive analysis to outline relevant findings from the selected literature. Data is taken from Google Scholar with a publication date range from 2011 to 2024, through searches using relevant keywords such as "creativity in MSMEs," "information technology in MSMEs," "product diversification," and "increasing MSME profits." From the initial search, 67 articles related to the research topic were found. A rigorous selection process was conducted based on the relevance, quality, and contribution of the articles to the discussed topic, resulting in 26 selected articles for further analysis. Descriptive analysis was used to identify main themes and emerging patterns from the literature, with each article analyzed to explore how creativity and information technology contribute to product diversification and how it impacts MSME profit growth. The obtained data was then synthesized to provide a comprehensive overview of the research topic. The findings from the selected articles were organized based on relevant themes such as the role of creativity in product innovation, the use of information technology in the diversification process, and the impact of diversification on MSME financial performance, and described in a detailed manner to provide an in-depth understanding of the involved dynamics. Through this approach, the research is expected to provide comprehensive and deep insights into how creativity and information technology can be utilized to support product diversification and increase MSME profits.

3. Result and Discussion

Creativity plays a crucial role in product diversification, providing MSMEs with the opportunity to create unique and standout innovations in the market [16]. A prime example of this is Batik Fractal in Bandung, which combines traditional batik designs with contemporary fractal patterns. This innovative approach serves to preserve cultural heritage while successfully attracting a broader market, including international consumers. Products that offer uniqueness and differentiation compared to traditional batik enable Batik Fractal to expand its market reach and increase revenue. This success demonstrates how creativity can significantly impact market growth and financial performance of MSMEs, allowing them to stand out amidst intense competition.

Information technology plays a vital role in supporting the product diversification process, enabling MSMEs to optimize various aspects of production and marketing [17]. For instance, KainKain from Bali utilizes textile design software to produce innovative and unique patterns, which were previously difficult to achieve with traditional methods. The use of this technology reduces design time and costs, speeds up the launch of new products, and enhances operational efficiency. Additionally, e-commerce platforms like Tokopedia expand KainKain's market reach, allowing them to reach a wider consumer base both domestically and internationally. KainKain has significantly increased sales and profits, showing how the integration of information technology can accelerate business growth and success with technological support.

Big data provides valuable insights into consumer preferences, enabling the development of products that meet market needs [18]. For example, Maicih, a snack company from Bandung, utilizes data analysis from sales and consumer surveys to identify the most favored flavors by customers. This information is used to create new flavor variations that meet consumer tastes. This innovation boosts sales and strengthens Maicih's position in the Indonesian snack market. The utilization of big data allows the company to quickly adapt to consumer trends, enhancing competitiveness and achieving significant growth.

Collaboration between creativity and information technology can result in innovative products that attract market attention [19]. A concrete example is Danjyo Hiyoji, a fashion company from Jakarta, which collaborates with local designers while utilizing 3D printing technology to create fashion accessories with complex designs. This innovation produces visually unique and high-quality bracelets and rings. These products capture the interest of both local and international markets, contributing to increased sales and company profits. The synergy between creative design and advanced technology enables Danjyo Hiyoji to stand out in the fashion industry, expand market reach, and achieve significant success.

Information technology plays an important role in enhancing operational efficiency, which supports the product diversification process [20]. Farmhouse Susu Lembang, located in Bandung, implements an IT-based supply chain management system to optimize their production and distribution processes. This system allows more efficient inventory management and production scheduling, thereby reducing costs and the time required to launch new products. Farmhouse Susu Lembang can introduce new products to the market more quickly and effectively, which in turn improves the company's profitability with this approach. The application of

information technology demonstrates how innovation in operational management can accelerate business growth and success in a competitive market.

Digital marketing is a highly effective tool for introducing new products and expanding market reach [21]. Sensatia Botanicals, a cosmetics company based in Bali, utilizes social media platforms and digital marketing campaigns to launch their latest products. The use of social media analytics allows them to evaluate campaign performance in real-time, providing valuable insights into consumer preferences and responses. This information helps them adjust marketing strategies appropriately, enhancing campaign effectiveness, and strengthening brand positioning in both domestic and international markets. Sensatia Botanicals successfully increases sales, expands their customer base, and reinforces brand image, demonstrating how digital marketing can play a key role in business growth with this approach.

Product diversification offers significant opportunities for entering new markets in Indonesia [22]. Javara, an organic food company based in Jakarta, leverages market research and information technology to introduce their products in various cities across the country. This approach involves tailoring products to fit the local preferences of each region, allowing them to meet the different needs and tastes of consumers in various areas. As a result, Javara effectively expands their market reach, increases sales in multiple regions, and supports overall company growth. This strategy shows how well-planned diversification, supported by market research and technology, can strengthen a company's position in a wide and diverse market.

Product diversification driven by creativity and supported by information technology has a significant positive impact on MSMEs' financial performance [23]. Kopi Kenangan, a coffee company based in Jakarta, utilizes a creative approach in product development and information technology to optimize production and marketing management. This strategy involves launching various innovative new products and implementing technology to enhance overall operational efficiency. As a result, Kopi Kenangan has recorded a significant increase in net profit in a relatively short time, demonstrating that the integration of product creativity and information technology in business processes can accelerate financial growth and substantially improve company performance.

Although information technology offers various benefits, MSMEs often face challenges in its implementation. Du Anyam, a Jakarta-based handicraft company, encountered difficulties in adopting e-commerce systems due to high initial investment costs and limited technical skills within their team. These obstacles hindered their ability to fully leverage the potential of e-commerce platforms [24]. However, with the support of training and technical assistance from various institutions, Du Anyam managed to overcome these barriers. This support helped them optimize the use of technology and significantly boost their online sales. The case of Du Anyam demonstrates that despite challenges in adopting information technology, MSMEs can overcome these hurdles and utilize technology to enhance their business performance with the right support.

Support from the government and supporting institutions plays a crucial role in helping MSMEs fully leverage creativity and information technology [25]. Training programs and financial incentives provided by the Indonesian government, such as those implemented by the Ministry of Cooperatives and SMEs, offer essential assistance for local MSMEs to enter the digital market and increase revenue. Training facilities strengthen technical and digital marketing skills, while financial incentives reduce the initial investment burden required for adopting new technologies. This support is invaluable in overcoming the challenges faced by MSMEs and facilitates their business growth and sustainability. Government and institutional efforts help MSMEs in the short term and contribute to their long-term success in an increasingly competitive market.

Product diversification driven by creativity and information technology plays a key role in supporting the long-term sustainability and growth of MSMEs [26]. Tokopedia, one of Indonesia's largest e-commerce platforms, exemplifies how the combination of product innovation and the application of information technology can consistently facilitate company development. Tokopedia has successfully expanded its market share and strengthened its position in the highly competitive e-commerce market through innovative product approaches and operational efficiency improvements. Continuous innovation and adoption of the latest technologies allow Tokopedia to remain relevant and highly competitive, proving that an integrated product diversification strategy with technology can drive significant long-term growth and sustainability for MSMEs.

This research reveals that policies prioritizing innovation, investment in information technology, and collaboration between the private sector and government can have a significant impact on MSMEs. Policies encouraging the development of creativity and the adoption of information technology act as key drivers for MSMEs to achieve success in product diversification, ultimately contributing to increased profits. Furthermore, these policies support overall economic growth in Indonesia by creating a conducive environment for MSMEs to develop and compete effectively. This success demonstrates that positive interaction between government policies and private sector initiatives can accelerate innovation and technology processes, providing broad and deep benefits for the national economy.

Overall, creativity and information technology play a crucial role in product diversification and profit enhancement for MSMEs. Relevant case studies in Indonesia show that integrating creativity in product design and information technology in business operations can provide substantial competitive advantages. The implementation of creativity drives appealing and differentiated product innovation, while information technology enhances operational efficiency and expands market reach. Continuous investment in these two aspects is essential to ensure that MSMEs remain relevant and competitive in a dynamic market. Additionally, government and institutional support must be optimally utilized to strengthen MSMEs' positions in facing challenges and achieving success in product diversification and profit enhancement, thereby contributing more significantly to national economic growth.

Table 1. Key Findings on the Role of Creativity and Information Technology in Product Diversification and Profitability of MSMEs

Aspect	Finding	Case Example
Creativity	Creativity enables SMEs to develop innovative and distinct products in the market	Batik Fractal - Integrates traditional batik designs with fractal patterns.
Information Technology	Information technology supports creativity and operational efficiency in product diversification.	KainKain - Uses textile design software.
Big Data	Big data provides valuable insights into consumer preferences for developing suitable products.	Maicih - Uses sales data to launch new flavors.
Creative and Technological Collaboration	Collaboration between creativity and technology produces innovative products that capture market interest.	Danjyo Hiyoji - Utilizes 3D printing technology for fashion accessories.
Operational Efficiency	Information technology enhances efficiency in production and distribution processes.	Farmhouse Susu Lembang - Employs a supply chain management system based on IT.
Digital Marketing	Digital marketing helps introduce new products and expand market reach.	Sensatia Botanicals - Utilizes social media and digital marketing campaigns.
Geographic Expansion	Product diversification opens opportunities to enter new markets in different regions.	Javara - Launches products in various Indonesian cities.
Financial Impact	Product diversification driven by creativity and supported by technology can significantly boost profits.	Kopi Kenangan - Increases profits through product innovation and operational efficiency.
Technology Challenges	SMEs face challenges with investment costs and technical skills related to information technology.	Du Anyam - Struggles with adopting e-commerce systems.
Government Support	Support from government and supporting agencies is crucial for facilitating SME growth.	Ministry of Cooperatives and SMEs - Provides training programs and financial incentives.
Sustainability and Growth	Creativity and information technology support the sustainability and long-term growth of SMEs.	Tokopedia - Innovations and technology support consistent growth.

4. Conclusion

This research shows that creativity and information technology play a crucial role in product diversification and profit enhancement of MSMEs in Indonesia. Creativity enables MSMEs to develop innovative products that are different and attractive in the market, while information technology supports the process by providing tools and platforms for more efficient design, production, and marketing. Case studies such as Batik Fractal, KainKain, Maicih, and Danjyo Hiyoji show how the integration of creativity and information technology can lead to products that are not only attractive but also fulfil the evolving needs of the market. The use of big data,

digital marketing, and IT-based supply chain management systems has been proven to improve operational efficiency and expand market reach, which has a positive impact on increasing revenue and profits. However, challenges such as initial investment costs and limited technical skills must be overcome to maximise the benefits of information technology. Support from the government and supporting institutions play a crucial role in helping MSMEs face these challenges, enabling them to innovate and thrive in a competitive market. Therefore, policies that support innovation and investment in information technology will be valuable in facilitating the growth of MSMEs and supporting the local economy as a whole. Suggestions that can be given on the results of this study include:

1. Investment in Training and Education: MSMEs need to invest in training and education to improve the technical skills and creativity of their employees. Training programmes on information technology and innovative product design will help them utilise technology more effectively and face challenges in the product diversification process.
2. Utilisation of Information Technology: MSMEs should utilise information technology, such as design software, data analytics, and e-commerce platforms, to improve operational efficiency and expand market reach. The adoption of these technologies should be accompanied by a clear strategy for integration into their business processes.
3. Support from Government and Institutions: The government and supporting agencies should continue to provide support in the form of training programmes, financial incentives, and technical assistance to MSMEs. Policies that encourage innovation and adoption of information technology will greatly assist MSMEs in improving their competitiveness in the market.
4. Focus on Creativity: MSMEs must continuously innovate in product design and development to stay relevant to the changing needs and preferences of the market. Creativity should be an integral part of their business strategy to create products that are unique and appealing to consumers.
5. Collaboration with Other Parties: Collaboration between MSMEs, designers, and technologists can lead to more innovative products and better fulfil market needs. MSMEs should look for opportunities to work with parties that have expertise and resources that can support their product diversification process.
6. Strategy Evaluation and Adjustment: MSMEs should regularly evaluate their product diversification and marketing strategies, and adjust their approach based on consumer feedback and market data. This will ensure that the products they offer remain relevant and fulfil consumer expectations.

References

- [1] L. Mustafa and L. Shkurti, "Diversifying Products and Services and Developing the Network of Suppliers and Customers: Exploring Their Impact on Business Success," *Review of Economics and Finance*, vol. 21, pp. 2550–2558, 2023.
- [2] Ratna, Y. J. Purnomo, and Sutrisno, "The Role of Innovation and Creativity in Business Management to Enhance SME Economy in the Creative Industry," *Indo-Fintech Intellectuals: Journal of Economics and Business*, vol. 4, no. 3, pp. 858–871, Jul. 2024, doi: 10.54373/ifijeb.v4i3.1473.
- [3] B. Triwahyono, T. Rahayu, and K. Kraugusteeliana, "Analysing the Role of Technological Innovation in Improving the Operational Efficiency of MSMEs," *Jurnal Minfo Polgan*, vol. 12, no. 1, pp. 1417–1426, Jul. 2023, doi: 10.33395/jmp.v12i1.12791.
- [4] S. S. Durmuşoğlu and G. Barczak, "The use of information technology tools in new product development phases: Analysis of effects on new product innovativeness, quality, and market performance," *Industrial Marketing Management*, vol. 40, no. 2, pp. 321–330, Feb. 2011, doi: 10.1016/j.indmarman.2010.08.009.
- [5] V. B. Kumbara and M. Afuan, "The Impact Of Product Innovation And Market Orientation On The Competitive Advantage of Souvenirs In Padang," *Jurnal EKOBISTEK*, vol. 9, no. 1, pp. 21–28, 2020.
- [6] S. Sutrisno, B. Y. Wibowo, and W. Widodo, "Competitive social capital in improving the performance of small and medium enterprises (SMEs): Role of knowledge donating and knowledge collecting," *Corporate Governance and Organizational Behavior Review*, vol. 8, no. 2, pp. 60–72, Apr. 2024, doi: 10.22495/cgobrv8i2p6.
- [7] S. Sutrisno, H. Prabowo, I. Setiawati, and F. W. Yarisma, "Analyzing the future of e-commerce adoption by SMEs amid the COVID-19 pandemic," *Corporate and Business Strategy Review*, vol. 5, no. 2, pp. 80–91, Apr. 2024, doi: 10.22495/cbsrv5i2art7.
- [8] P. Diawati, A. M. A. Ausat, and J. Augustin, "Creativity: How to Develop an Entrepreneurial Attitude of Creativity," *Journal on Education*, vol. 5, no. 4, pp. 11116–11122, 2023, Accessed: Mar. 02, 2023. [Online]. Available: <https://jonedu.org/index.php/joe/article/view/2036>

- [9] A. Atrup, P. Diawati, S. Syamsuri, S. A. Pramono, and A. M. A. Ausat, "The Effect of Entrepreneurship Education and Creativity on Students' Entrepreneurial Intention : The Perspective of Effectuation and Cognitive Flexibility Theory," *Jurnal Kependidikan*, vol. 9, no. 2, 2023, doi: <https://doi.org/10.33394/jk.v9i2.7822>.
- [10] S. Wahyoedi, S. Suherlan, S. Rijal, H. K. Azzaakiyyah, and A. M. A. Ausat, "Implementation of Information Technology in Human Resource Management," *Al-Buhuts*, vol. 19, no. 1, pp. 300–318, 2023, doi: <https://doi.org/10.30603/ab.v19i1.3407>.
- [11] A. Arjang, S. Sutrisno, R. M. Permana, R. Kusumastuti, and A. M. A. Ausat, "Strategies for Improving the Competitiveness of MSMEs through the Utilisation of Information and Communication Technology," *Al-Buhuts*, vol. 19, no. 1, pp. 462–478, 2023.
- [12] O. I. Tarunay, Yudha Sapta Pratama, and Evien, "The Effect of Product Diversification and Brand Equity on Purchase Decisions With Promotion Strategy as a Moderator," *eCo-Buss*, vol. 6, no. 3, pp. 1382–1394, Apr. 2024, doi: [10.32877/eb.v6i3.1170](https://doi.org/10.32877/eb.v6i3.1170).
- [13] D. Benito-Osorio, A. Colino, L. Á. Guerras-Martín, and J. Á. Zúñiga-Vicente, "The combined effects of product and geographical diversification on performance: Evidence in manufacturing SMEs," *BRQ Business Research Quarterly*, vol. 23, no. 2, pp. 91–106, Apr. 2020, doi: [10.1177/2340944420916332](https://doi.org/10.1177/2340944420916332).
- [14] A. M. A. Ausat, R. Velmurugan, M. M. Mazil, M. A. Mazher, and M. O. Okombo, "Utilisation of Natural Resources as a Source of Inspiration and Innovation in SME Development," *Apollo: Journal of Tourism and Business*, vol. 1, no. 3, pp. 122–132, 2023, doi: [10.58905/apollo.v1i3.103](https://doi.org/10.58905/apollo.v1i3.103).
- [15] A. D. Subagja, A. M. A. Ausat, and Suherlan, "The Role of Social Media Utilization and Innovativeness on SMEs Performance," *Jurnal IPTEK-KOM (Jurnal Ilmu Pengetahuan dan Teknologi Komunikasi)*, vol. 24, no. 2, pp. 85–102, 2022, doi: <https://doi.org/10.17933/iptekkom.24.2.2022.85-102>.
- [16] N. O. Juliana, H. J. Hui, M. Clement, E. N. Solomon, and O. K. Elvis, "The Impact of Creativity and Innovation on Entrepreneurship Development: Evidence from Nigeria," *Open Journal of Business and Management*, vol. 09, no. 04, pp. 1743–1770, 2021, doi: [10.4236/ojbm.2021.94095](https://doi.org/10.4236/ojbm.2021.94095).
- [17] A. Haug, K. Afsbøll Wickstrøm, J. Stentoft, and K. Philipsen, "The impact of information technology on product innovation in SMEs: The role of technological orientation," *Journal of Small Business Management*, vol. 61, no. 2, pp. 384–410, Mar. 2023, doi: [10.1080/00472778.2020.1793550](https://doi.org/10.1080/00472778.2020.1793550).
- [18] Y. Li, "Big Data Analysis in Consumer Behavior: Evidence from Social Media and Mobile Payment," *Advances in Economics, Management and Political Sciences*, vol. 64, no. 1, pp. 269–275, Dec. 2023, doi: [10.54254/2754-1169/64/20231548](https://doi.org/10.54254/2754-1169/64/20231548).
- [19] S. Cunningham, R. A. Earnshaw, D. Berry, P. S. Excell, and E. Thompson, "Examples of the Impact of Collaboration in Creative and Technological Practices," *International Journal of Art, Culture, Design, and Technology*, vol. 6, no. 2, pp. 55–79, Jul. 2017, doi: [10.4018/IJACDT.2017070104](https://doi.org/10.4018/IJACDT.2017070104).
- [20] P. Diawati, S. S. Gadzali, M. K. N. Abd Aziz, A. M. A. Ausat, and S. Suherlan, "The Role of Information Technology in Improving the Efficiency and Productivity of Human Resources in the Workplace," *Jurnal Teknologi Dan Sistem Informasi Bisnis*, vol. 5, no. 3, pp. 296–302, 2023, doi: <https://doi.org/10.47233/jteksis.v5i3.872>.
- [21] C. P. Pratiwi *et al.*, "The Rise of Digital Marketing Agencies: Transforming Digital Business Trends," *Jurnal Aplikasi Bisnis dan Manajemen*, vol. 1, no. 1, pp. 162–172, Jan. 2024, doi: [10.17358/jabm.10.1.162](https://doi.org/10.17358/jabm.10.1.162).
- [22] O. Humarseno and D. Abdul Chalid, "The Impact of Business Diversification on Performance of IDX Listed Firms," *Indonesian Capital Market Review*, vol. 5, no. 2, pp. 95–103, Jul. 2013, doi: [10.21002/icmr.v5i2.1902](https://doi.org/10.21002/icmr.v5i2.1902).
- [23] M. Indriastuti and I. Kartika, "The Impact of Digitalization on MSMEs' Financial Performance: The Mediating Role of Dynamic Capability," *Jurnal Economia*, vol. 18, no. 2, pp. 240–255, Oct. 2022, doi: [10.21831/economia.v18i2.42790](https://doi.org/10.21831/economia.v18i2.42790).
- [24] A. M. A. Ausat and T. Peirisal, "Determinants of E-commerce Adoption on Business Performance : A Study of MSMEs in Malang City , Indonesia," *Journal On Optimizations Of Systems At Industries*, vol. 20, no. 2, pp. 104–114, 2021, doi: [10.25077/josi.v20.n2.p104-114.2021](https://doi.org/10.25077/josi.v20.n2.p104-114.2021).
- [25] A. M. A. Ausat and S. Suherlan, "Obstacles and Solutions of MSMEs in Electronic Commerce during Covid-19 Pandemic: Evidence from Indonesia," *BASKARA: Journal of Business and Entrepreneurship*, vol. 4, no. 1, pp. 11–19, Oct. 2021, doi: [10.54268/BASKARA.4.1.11-19](https://doi.org/10.54268/BASKARA.4.1.11-19).
- [26] A. H. Wiardi and F. E. Saputra, "The Perspective of Business Strategy and Sustainability of Micro, Small, and Medium Enterprises (MSMEs) Resilience During COVID-19 Pandemic," *International Journal of Small and Medium Enterprises and Business Sustainability*, vol. 7, no. 2, pp. 32–57, 2022.