ANALYZING THE IMPACT OF BIG DATA CREDIT TECHNOLOGY ON MICRO AND SMALL ENTERPRISES (MSE s) CREDIT ACCESS: AN EVOLUTIONARY GAME PERSPECTIVE IN INDONESIA

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Abstract

The use of big data credit technology has become a significant trend in the financial industry in Indonesia, with the potential to impact credit access for micro and small enterprises (MSEs). In this context, evolutionary games become a relevant analytical framework for understanding the dynamics of interactions between financial institutions, MSEs and governments in the use of this technology. This study aims to analyze the impact of big data credit technology on MSE credit access in Indonesia, as well as the government's role in regulating the use of this technology and increasing digital inclusivity for MSEs. By utilizing a literature study approach, related articles and reports were analyzed to gain insight into key issues in the use of big data credit technology and evolutionary gaming in Indonesia. From the analysis carried out, it was found that the use of big data credit technology has a significant impact on MSE credit access. While this technology brings benefits in the form of expanded access and increased process efficiency, challenges such as data protection and inequality of access also need to be addressed. In the dynamics of this evolutionary game, governments play an important role in regulating the use of these technologies, ensuring adequate data protection and increasing digital inclusivity for MSEs. Strict but balanced regulation is needed to ensure that the benefits of the use of big data credit technology are enjoyed equally by all parties, while minimizing the risks associated with the use of consumer data. Apart from that, the government also needs to continue their efforts to facilitate digital inclusivity for MSEs through programs such as providing affordable internet access and digital training.

Keywords: Big Data Credit Technology, Credit Access, Micro and Small Enterprises (MSE), Evolutionary Games, Data Protection Regulations, Digital Inclusivity.

INTRODUCTION

Analyzing the impact of big data credit technology on credit access for micro and small enterprises (MSEs) from an evolutionary game perspective in Indonesia is a task that requires an in-depth understanding of the latest developments in the financial and information technology industry, as well as the dynamics of the microeconomy in Indonesia. In recent years, advances in

information technology have changed the landscape of the financial industry, including the way financial institutions provide credit services to MSEs. In Indonesia, where MSEs play an important role in the economy, this analysis has significant implications for overall economic growth. With big data, financial institutions can collect, process and analyze data on a large scale to make more precise and faster credit decisions. However, while this technology offers the potential to increase credit access for MSEs, there are also challenges that need to be addressed, such as data protection and fair access to technology for MSEs who may not yet have equal access to digital infrastructure.

First of all, it is important to understand how big data credit technology has changed the way financial institutions operate in Indonesia. Previously, the process of providing credit to MSEs often involved more traditional risk analysis, such as credit history and physical collateral. However, with the adoption of big data credit technology, financial institutions can now collect and analyze a variety of non-traditional data, including non-cash transaction data, social media activity and internet user behavior patterns. This allows them to gain deeper insight into the risk profile and repayment capabilities of potential MSEs, which in turn can expand credit access for MSEs that previously found it difficult to qualify for traditional credit.

However, the impact of big data credit technology on MSE credit access is not without challenges. One of the main issues is data protection. In the collection and use of massive data for credit analysis, there are increasing risks regarding the privacy and security of customers' personal data. Moreover, MSEs may not have sufficient awareness of the importance of data protection or the ability to understand the implications of sharing their personal information with financial institutions. Therefore, it is important to ensure that strict policies and regulations are implemented to protect consumer data, while ensuring that the benefits of big data credit technology can be enjoyed fairly by MSEs.

Additionally, there are also issues related to access and inclusivity. Although big data credit technology can expand credit access for MSEs, there is a risk that MSEs that are less digitally connected or have limited access to information technology may be left behind. This could happen because of limited digital infrastructure in rural areas or because of a lack of digital literacy among MSEs. Therefore, it is important to ensure that efforts are made to increase technological accessibility for MSEs, such as providing wider internet access and digital training programs.

In the context of an evolutionary game, analysis of the impact of big data credit technology on MSE credit access can be viewed as a dynamic game between financial institutions and MSEs. On the one hand, financial institutions are looking for ways to use this technology to increase their operational efficiency and reduce credit risk. On the other hand, MSEs must adapt to these changes and ensure that they are not left behind in the process. In this game, it is important to pay attention to the government's role as a regulator to ensure that the game takes place fairly and that MSEs receive equal treatment in access to credit.

Another challenge that must be overcome is economic and political uncertainty. In Indonesia, the business environment is often influenced by changes in government policies, market fluctuations and other external factors. This could impact MSEs' ability to gain access to credit, despite advances in big data credit technology. Therefore, analysis of the impact of this technology must consider the broader economic and political context, as well as take into account risk factors that may affect MSEs' access to credit in the future.

In conclusion, analyzing the impact of big data credit technology on MSE credit access from an evolutionary game perspective in Indonesia involves a deep understanding of the complex interactions between various stakeholders, including financial institutions, MSEs, government, and other external factors. While this technology offers the potential to improve credit access for MSEs, there are challenges that need to be addressed, including data protection, technology accessibility, and economic uncertainty. By paying attention to these challenges and taking appropriate steps, Indonesia can harness the potential of big data credit technology to drive inclusive and sustainable economic growth across the country.

METHOD

The literature study research method in analyzing the impact of big data credit technology on credit access for micro and small enterprises (UMK) from an evolutionary game perspective in Indonesia involves collecting, synthesizing and analyzing literature relevant to the research topic. The first step is to identify appropriate literature sources, including academic journals, books, research reports, and articles from trusted sources that discuss big data credit technology, MSE credit access, and the dynamics of the Indonesian economy. Furthermore, relevant information from these sources will be filtered and organized according to a predetermined analytical framework, covering aspects such as the impact of

big data credit technology, data protection challenges, technology accessibility and economic uncertainty.

After relevant information has been collected, the next stage is to synthesize and analyze the findings from the literature. This involves grouping information based on certain themes or topics, identifying emerging patterns or trends, and evaluating various approaches or points of view taken by previous researchers regarding the impact of big data credit technology on MSE credit access in Indonesia. By considering an evolutionary gaming perspective, the research will also explore how interactions between various stakeholders, including financial institutions, MSEs, and governments, can influence the dynamics of credit access in a changing context.

In addition, the research will also look for consistencies and inconsistencies in literature findings and try to identify knowledge gaps that still exist in the existing literature. This will help determine future research directions and highlight areas where further research is needed to deepen understanding of the impact of big data credit technology on MSE credit access in Indonesia.

The entire research process of this literature study will be carefully documented, including recording the literature sources used, the analysis carried out, as well as the findings and conclusions produced. This documentation will help ensure validity and transparency in research as well as facilitate the development of strong arguments in the analysis of the impact of big data credit technology on MSE credit access from an evolutionary game perspective in Indonesia. Thus, through this literature study research method, it is hoped that the research can provide valuable and in-depth insight into the complexity of the relationship between technology, finance and microeconomics in Indonesia.

DISCUSSION

In recent years, developments in information technology have changed the landscape of the financial industry in Indonesia, including providing access to credit for micro and small enterprises (MSEs). The use of big data credit technology has become a significant trend, where financial institutions utilize big data to analyze credit risk and expand credit access for MSEs. However, the impact of these technologies does not only impact financial institutions and MSEs, but also involves complex dynamics between various stakeholders, which can be understood through an evolutionary game perspective. In this analysis, we explore the impact of big data credit technology on MSE credit access in Indonesia

through an evolutionary gaming approach, taking into account factors such as data protection, technology accessibility, and economic uncertainty.

Analysis Findings

Positive impact	1. Expanding Credit Access: The adoption of big data credit technology has enabled financial institutions to expand credit access for MSEs that previously had difficulty meeting traditional credit requirements. 2. Process Simplification: This technology enables the credit granting process to be faster and more efficient, with more accurate risk analysis based on non-traditional data.
Negative impact	1. Data Protection Challenges: The use of massive data for credit analysis increases risks regarding the privacy and security of customers' personal data. 2. Access Inequality: There is a risk that MSEs that are less digitally connected or have limited access to information technology lag behind in access to credit, creating access inequality that needs to be addressed.
Role of Government	1. Data Protection Regulation: Data protection is a major focus of government regulation, with measures to ensure that privacy and data security policies are strictly enforced. 2. Digital Inclusivity Program: The government also plays a role in increasing digital inclusivity through programs such as providing wider internet access and digital training for MSEs
Evolutionary Game Dynamics	1. Complex Interactions: Evolutionary games involve dynamic interactions between financial institutions, MSEs, and governments, where the decisions and actions of one party influence the strategies and responses of the other party. 2. Balance of Power: This game creates a dynamic where the power and interests of various stakeholders confront each other, creating challenges and opportunities in achieving their goals.
Challenges and Opportunities	1. Data Protection: A key challenge is ensuring adequate data protection without hindering progress in big data credit technology. 2. Digital Inclusivity: Opportunities lie in efforts to increase technology accessibility for MSEs through policies and programs that support digital inclusivity.
Conclusion	Our analysis shows that big data credit technology has a significant impact on MSE credit access in Indonesia. While this technology brings benefits in the form of expanded access and simplification of processes, challenges such as data protection and inequality of access also need to be addressed. The government has an important role in ensuring adequate data protection and increasing digital inclusivity for MSEs. In the context of an evolutionary game, dynamic interactions between various stakeholders create challenges and opportunities that must be managed wisely to achieve the goal of inclusive and sustainable economic growth in Indonesia.

This analysis underscores the importance of understanding the complex dynamics involved in the use of big data credit technology in the Indonesian financial industry, particularly in the context of credit access for MSEs. While this

technology brings great benefits in expanding access and increasing process efficiency, challenges such as data protection and inequality of access must be taken seriously. Through an evolutionary game approach, we can see how interactions between various stakeholders create complex dynamics, which require good cooperation and coordination to achieve the desired goals. By paying attention to existing challenges and opportunities, and through the government's active role in regulating and facilitating the development of big data credit technology, Indonesia can take steps towards inclusive and sustainable economic growth that involves all levels of society, including MSEs.

Dynamics of interactions between financial institutions, MSEs, and the government in the use of big data credit technology to influence MSEs' credit access in Indonesia, considering evolutionary games as an analytical framework

The dynamics of interaction between financial institutions, micro and small enterprises (MSEs), and the government in the use of big data credit technology to influence MSEs' credit access in Indonesia is a complex process, which can be understood through the lens of an evolutionary game. On the one hand, financial institutions have an interest in using big data credit technology to improve their operational efficiency, expand markets and reduce credit risk. By leveraging big data collected from various sources, such as non-cash transactions and digital footprints, financial institutions can analyze credit risk more accurately and quickly, enabling them to offer credit services to MSEs with lower risk levels than before. However, on the other hand, MSEs are often faced with challenges in meeting the credit requirements imposed by traditional financial institutions. With the adoption of big data credit technology, MSEs that previously had difficulty meeting traditional credit requirements now have the opportunity to gain wider access to credit, because financial institutions can assess their repayment capabilities based on non-traditional data that reflects daily business and financial activities.

In this evolutionary game, the government has a key role in regulating and facilitating the dynamics between financial institutions and MSEs. The government acts as a regulator that establishes the policy and regulatory framework for the use of big data credit technology in the financial industry. This covers aspects such as consumer data protection, information security standards, and ethics in the use of personal data for business purposes. By establishing strict but balanced regulations, governments can ensure that financial institutions use

big data credit technology in a way that is responsible and respects the privacy and security of consumer data. Apart from that, the government can also play a role in facilitating technology accessibility for MSEs, through programs such as providing wider internet access and digital training for MSEs.

However, in the context of this evolutionary game, the role of government can also be subject to competition and pressure from different interests. On the one hand, financial institutions may seek to influence the formation of government policy to benefit their own interests, such as relaxing data protection regulations to facilitate the use of consumer data in credit analysis. On the other hand, MSEs and community advocacy groups may urge the government to strengthen data protection and enforce equitable access to technology for MSEs who may not yet have equal access to digital infrastructure. Therefore, this evolutionary game creates a complex dynamic in which the government must consider various interests and ensure that the policies it adopts serve the interests of society at large.

In addition, in this evolutionary game, there is continuous interaction between financial institutions, MSEs, and the government, which creates ever-changing dynamics in the use of big data credit technology and its impact on MSE credit access in Indonesia. For example, advances in big data credit technology could result in greater advantages for financial institutions in assessing credit risk, allowing them to offer more competitive interest rates to MSEs. However, along with these developments, there may also be greater risks related to consumer data protection, which could trigger a stricter regulatory response from governments. Therefore, financial institutions, MSEs and governments must continuously adapt and respond to changes in technology and policy to ensure that MSEs' credit access is maintained while minimizing the risks associated with the use of big data credit technology.

Thus, in the context of an evolutionary game, the dynamics of interaction between financial institutions, MSEs, and the government in the use of big data credit technology to influence MSE credit access in Indonesia creates a complex environment where the interests and strategies of various stakeholders interact and influence each other. To achieve the goal of inclusive and sustainable economic growth, it is important for all parties to work together in a mutually beneficial framework, where government policy plays a key role in ensuring that the benefits of using big data credit technology are felt equally by all parties, while minimizing risks related to the use of consumer data.

Positive and negative impacts of the use of big data credit technology on MSE credit access in Indonesia, and the dynamics of the evolutionary game influencing the distribution of power and profits between various stakeholders

The use of big data credit technology has a significant impact on access to credit for micro and small enterprises (UMK) in Indonesia, producing a series of positive and negative impacts. Positively, big data credit technology allows financial institutions to increase their operational efficiency and expand credit access for MSEs that previously had difficulty meeting traditional credit requirements. By analyzing non-traditional data such as non-cash transactions and digital footprints, financial institutions can assess credit risk more accurately and quickly, enabling them to offer credit services to MSEs with lower risk levels. This directly expands financial access for MSEs, which in turn can encourage business and microeconomic growth. However, on the other hand, there are also negative impacts that need to be considered. The use of massive data for credit analysis increases risks regarding the privacy and security of customers' personal data. This raises concerns regarding data leaks and misuse of personal information, which can harm consumers and undermine trust in the financial system. Data protection is therefore important in this context, and strict regulations are necessary to ensure that consumer data is processed and stored securely.

In the dynamics of an evolutionary game, the use of big data credit technology also influences the distribution of power and profits between various stakeholders, including financial institutions, MSEs, and governments. On the one hand, financial institutions have economic power and access to technology that allows them to take advantage of consumer data to analyze credit risk and offer more appropriate credit products. This gives them a competitive advantage in the market, and directly influences the distribution of profits in the financial industry. However, on the other hand, MSEs can also benefit from the use of big data credit technology by expanding credit access for those who previously had difficulty meeting traditional credit requirements. This can increase the competitiveness and growth of MSE businesses, as well as improve the overall economic welfare of society.

However, the dynamics of this evolutionary game also create tensions between the interests of various stakeholders, especially regarding data security and privacy. Financial institutions may tend to ignore data protection for economic gain, while MSMEs and consumers may demand stronger data protection to ensure the security of their personal information. In situations like

this, the government acts as a regulator who must find the right balance between encouraging technological innovation and protecting consumer interests. By establishing strict but balanced regulations, the government can ensure that the benefits of using big data credit technology are enjoyed fairly by all parties, while minimizing risks associated with data security and privacy.

In addition, the distribution of power is also an important consideration in this evolutionary game. Financial institutions, with their economic and technological power, tend to have a large influence in determining the direction of the financial industry and access to credit for MSEs. However, with the adoption of big data credit technology, MSMEs also have the opportunity to strengthen their position in this game by leveraging their own data to support credit applications and obtain more favorable terms. This creates a competitive dynamic where various stakeholders interact with each other and compete on strategies to gain the greatest benefit from the use of big data credit technology.

In conclusion, the use of big data credit technology has a significant impact on MSE credit access in Indonesia, producing a series of positive and negative impacts. In evolutionary game dynamics, the distribution of power and profits between various stakeholders is also influenced by the use of these technologies. Therefore, it is important for financial institutions, MSEs and the government to work together in a mutually beneficial framework, taking into account the interests of consumers and society as a whole. Thus, the use of big data credit technology can be a powerful tool for increasing financial inclusiveness and sustainable economic growth if managed wisely and responsibly.

The government's role in regulating the use of big data credit technology is to ensure adequate data protection and increase digital inclusivity for MSEs, and this role contributes to the context of the evolutionary game between financial institutions, MSEs and the government

The government's role in regulating the use of big data credit technology is crucial to ensure adequate data protection and increase digital inclusivity for micro and small enterprises (MSEs) in Indonesia. First of all, governments have the responsibility to establish a clear and strict regulatory framework regarding the collection, processing and storage of data by financial institutions. This involves creating laws and policies that regulate the use of consumer data as well as establishing high standards of information security to protect individual privacy and prevent misuse of data. In this way, the government can ensure that financial

institutions use big data credit technology ethically and responsibly, without compromising consumer interests and security.

Apart from that, the government also has a role in facilitating digital inclusivity for MSEs through various programs and initiatives. This includes providing affordable and widespread internet access in rural and remote areas, as well as digital training for MSEs to improve their understanding and skills in using information technology. In this way, the government can ensure that MSEs are not left behind in the digital era and can access financial services more widely and efficiently through digital platforms.

The government's role in regulating the use of big data credit technology and increasing digital inclusivity for MSEs also has implications in the context of the evolutionary game between financial institutions, MSEs and the government. On the one hand, the government acts as a regulator who sets the rules of this game, ensuring that the interests of consumers and the wider community are safeguarded and taken into account. By establishing strict but balanced regulations, the government can create a conducive environment for technological innovation in the financial industry while protecting consumer interests.

However, the role of government can also be subject to competition and pressure from various parties. Financial institutions may seek to influence the formation of government policy to benefit their own interests, such as lobbying to relax data protection regulations to facilitate the use of consumer data in credit analysis. On the other hand, MSEs and community advocacy groups may urge the government to strengthen data protection and enforce equitable access to technology for MSEs who may not yet have equal access to digital infrastructure. Therefore, this evolutionary game creates a complex dynamic in which the government must consider various interests and ensure that the policies it adopts serve the interests of society at large.

In the context of this evolutionary game, the dynamics of interactions between financial institutions, MSEs and governments continue to change along with technological and policy developments. Advances in big data credit technology and digital inclusivity can open up new opportunities for MSEs to access better financial services, while at the same time raising new challenges related to data protection and fairness of access. Therefore, the government must continuously adapt and respond to changes in technology and policy to ensure that MSEs' access to credit is maintained while minimizing the risks associated with the use of big data credit technology.

Thus, the government's role in regulating the use of big data credit technology and increasing digital inclusivity for MSEs is very important in the context of the evolutionary game between financial institutions, MSEs and the government. By taking a role as a fair and balanced regulator, the government can create a conducive environment for inclusive and sustainable economic growth in Indonesia, where all parties, including financial institutions, MSEs and consumers, can gain fair benefits from advances in technology and services. better finances.

CONCLUSION

In conclusion, it is important to acknowledge that the use of big data credit technology has a significant impact on access to credit for micro and small enterprises (MSEs) in Indonesia. While this technology brings benefits in the form of expanded access and increased process efficiency, challenges such as data protection and inequality of access also need to be addressed. In the dynamic evolutionary game between financial institutions, MSEs and governments, governments play an important role in regulating the use of these technologies, ensuring adequate data protection and increasing digital inclusivity for MSEs. Therefore, strict but balanced regulations are needed to ensure that the benefits of using big data credit technology are enjoyed fairly by all parties, while minimizing the risks associated with the use of consumer data. Apart from that, the government also needs to continue their efforts to facilitate digital inclusivity for MSEs through programs such as providing affordable internet access and digital training. In this way, Indonesia can utilize the potential of big data credit technology to encourage inclusive and sustainable economic growth, by ensuring that this progress is felt by all levels of society, especially MSEs.

BIBLIOGRAPHY

Afifah, SN (2023). The Impact of the Corona Virus Pandemic on MSMEs in Indonesia. *EXERO: Journal of Research in Business and Economics* , *6* (1), 63-82.

ANGGRAENI, IN (2024). *THE INFLUENCE OF THE USE OF UMKM DIRECT CASH ASSISTANCE (BLT) FUNDS AND FINANCIAL TECHNOLOGY ON MICRO BUSINESS PERFORMANCE IN SLEMAN DISTRICT* (Doctoral dissertation, UPN Veteran Yogyajarta).

Aripin, Z., Fitrianti, NG, & Fatmasari, RR (2023). Digital Innovation and Knowledge Management: The Latest Approaches in International Business. A

Systematic Literature Review in the Indonesian Context. *KRIEZ ACADEMY: Journal of development and community service* , *1* (1), 62-74.

Aripin, Z., Haryaman, A., & Sikki, N. (2024). INCENTIVE STRUCTURE AND ITS EFFECT ON REFERRALS: AN ANALYSIS OF THE ROLE OF SELF-CONSTRUCTION AS A DETERMINANT. *KRIEZ ACADEMY: Journal of development and community service* , *1* (2), 65-77.

Aripin, Z., Ichwanudin, W., & Faisal, I. (2023). BRAND SUSTAINABILITY STRATEGY DEVELOPMENT: THE ROLE OF SOCIAL MEDIA MARKETING AND MARKETING MANAGEMENT. *KRIEZ ACADEMY: Journal of development and community service* , *1* (1), 39-49.

Aripin, Z., Mulyani, SR, & Haryaman, A. (2023). MARKETING STRATEGY IN PROJECT SUSTAINABILITY MANAGEMENT EFFORTS IN EXTRACTIVE INDUSTRIES: BUILDING A RECIPROCITY FRAMEWORK FOR COMMUNITY ENGAGEMENT. *KRIEZ ACADEMY: Journal of development and community service* , *1* (1), 25-38.

Aripin, Z., Supriatna, U., & Mahaputra, MS (2023). WITH THE ADVENT OF CHATGPT: HOW TO IDENTIFY STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS FOR THE FIELD OF EDUCATION AND THE BUSINESS WORLD OF VARIOUS DISCIPLINES. *KRIEZ ACADEMY: Journal of development and community service* , *1* (1), 50-61.

Aripin, Zaenal, Farida Yulianty, Fitriana. "A QUANTITATIVE PERFORMANCE MANAGEMENT FRAMEWORK TO IMPROVE COMMUNITY ECONOMY THROUGH OMNICHANNEL SUPPLY CHAIN: A CASE STUDY IN THE BANKING AND MARKETING INDUSTRY." *KRIEZ ACADEMY: Journal of development and community service* 1.1 (2023): 15-24.

Fitriana, Fitriana, Didin Saepudin, and Rachmat Agus Santoso. "Fraud Diamond Theory Detect Financial Statement Fraud in Manufac-turing Companies on The Indonesia Stock Exchange." *International Business and Accounting Research Journal* 5.2 (2021): 93-105.

Fitriana, Fitriana, Didin Saepudin, and Rachmat Agus Santoso. "Fraud Diamond Theory Detect Financial Statement Fraud in Manufac-turing Companies on The Indonesia Stock Exchange." *International Business and Accounting Research Journal* 5.2 (2021): 93-105.

Harp, A.P., Fitri, R., & Mahanani, Y. (2021). Sharia Peer-to-Peer Lending and its Impact on the Performance and Welfare of Micro and Small Enterprises (UMK) During the Covid-19 Pandemic. *AL-MUZARA'AH* , *9* (1), 109-127.

Herawati, NT, Kurniawan, PS, Sujana, E., Dewi, PEDM, & Dewi, LGK (2020). Utilization of Financial Technology in Financial Management for Micro and Small Enterprises. *CARADDE: Journal of Community Service* , *2* (2), 179-186.

Lapangga, I. (2022). The Effect of Effectiveness of People's Business Credit (Kur) Distribution on Micro, Small and Medium Enterprises to Bri Masama Unit Customers. *Journal of Clean Government* , *5* (1), 16-30.

Muhtar, FAM, Kellen, PB, & Ahmad, M. (2021). THE EFFECTIVENESS OF WORKING CAPITAL MANAGEMENT IN RELATION TO INCREASING LIQUIDITY AND PROFITABILITY AT PT BOSOWA BERLIAN MOTOR KUPANG BRANCH. *Journal of Business & Management* , *13* (2), 35-47.

Pulungan, MA, & Haryanto, T. (2024). ANALYSIS OF INFORMAL SECTOR HOUSEHOLD POVERTY IN EAST JAVA PROVINCE. *Scientific Journal of Management, Economics, & Accounting (MEA)* , *8* (1), 2244-2262.

Putri, S. (2021). The role of sharia financing in the development of MSMEs in Indonesia. *Al Hisab: Journal of Sharia Economics* , *1* (2), 1-11.

Ruhyana, NF (2021). Analysis of Vulnerability of Micro and Small Enterprises Due to the Covid-19 Pandemic in Sumedang Regency. *Innovation* , *18* (2), 199-210.

Saraswati, ID (2024). *Framework for Preparing Strategies to Survive and Develop MSEs for Food and Beverage Outlets Based on Analytical Business* (Doctoral dissertation, Atma Jaya University Yogyakarta).

Supriatna, D., Candra, E., Adinugroho, I., Nasution, MA, & Yanti, N. (2023). The Influence of MSME Performance on the Economic Growth of Sukabumi Regency. *Sanskara Economics And Entrepreneurship* , *1* (02), 43-53.

Tan, E., & Syahwildan, M. (2022). Financial Technology and Sustainable Performance of Micro, Small Enterprises: Mediation of Financial Literacy and Financial Inclusion. *Scientific Journal of Management and Business* , *23* (1), 1-22.

Widyasari, W. (2022). The Role of Sharia Financial Literacy Levels and Access to Sharia Bank Financing on the Growth of Muslim-Owned Micro and Small Enterprises in Bandung Regency. *Expansion: Journal of Economics, Finance, Banking, and Accounting* , *14* (2), 116-129.