International Journal on Social Science, Economics and Art, 15 (2) (2025) 66-80



Published by: Institute of Computer Science (IOCS)

## International Journal on Social Science, Economics and Art





# Business Performance Model of Micro, Small and Medium Enterprises (MSMEs) in Reducing Poverty Rates

Tyus Windi Ayuni¹, Manda Dwipayani Bhastary², Devi Purnama Sari³, Ratih Amelia⁴, Nasib⁵ ¹Study Program of Tax Accounting, Politeknik Unggul LP3M Medan, Medan, Indonesia ²-⁵Study Program of Master of Management, Institut Bisnis Informasi Teknologi dan Bisnis, Medan, Indonesia ³Study Program of Entrepreneurship, Universitas Satya Terra Bhinneka, Medan, Indonesia ⁴Study Program of Marketing Management, Politeknik Unggul LP3M Medan, Medan, Indonesia Email: tyuswindiayuni@gmail.com

#### **Article Info**

#### Article history:

Received: Jul 22, 2025 Revised: Aug 16, 2025 Accepted: Aug 30, 2025

## **Keywords:**

Performance; Poverty; MSMEs; SEM; Langkat.

#### **ABSTRACT**

Business performance of Micro, Small, and Medium Enterprises (MSMEs) is crucial in reducing poverty rates in a region. This is because business performance is believed to create jobs, increase community income, and drive local economic growth. There are three factors that influence the business performance of MSMEs: product innovation, digitalization or technology utilization, and marketing strategies. The urgency of this research stems from the absence of a business performance model for MSMEs aimed at reducing poverty rates in Langkat Regency. The objectives of this study are to identify the potential and challenges of MSMEs, formulate development strategies for MSMEs, and develop a business performance model based on innovation, digitalization, and marketing strategies to reduce poverty rates. The method used in this study is quantitative with Structural Equation Modeling (SEM) analysis. The results of the analysis are expected to contribute to the development of an effective business performance model for MSMEs in reducing poverty. From the study results, it was found that adjustments are needed to the model design developed in the previous study. Based on primary questionnaire data from 50 MSMEs in Langkat Regency, it was found that the factors influencing MSME business performance in Langkat Regency contribute to reducing poverty rates.

This is an open access article under the CC BY-NC license.



## Corresponding Author:

Nasib

Study Program of Master of Management, Institut Bisnis Informasi Teknologi dan Bisnis,

Jl. Mahoni No.16, Gaharu, Kec. Medan Tim, Kota Medan, Sumatera Utara 20235.

Email: nasibwibowoo2@gmail.com

#### 1. INTRODUCTION

Poverty rates are a classic problem for Indonesia in particular and the world in general (Ayuni 2022)(Amelia, Ayuni, and Nasib 2023)(Literasi and Di n.d.). Poverty rates are influenced by various factors, such as a lack of job opportunities and a lack of creativity among the population in creating

Journal homepage: www.ijosea.isha.or.id

jobs (Merín-Rodrigáñez, Dasí, and Alegre 2024)(Anjaningrum, Azizah, and Suryadi 2024)(Changalima, Ismail, and Amani 2025). MSMEs are a key pillar of economic development, particularly in creating jobs, driving local economic growth, and playing an active role in efforts to reduce poverty rates (Pebriani et al. 2025)(Amelia et al. 2025)(Ochoa Crespo, Domínguez, and Guzmán 2025).

In Indonesia, SMEs contribute more than 60% to the Gross Domestic Product and absorb around 97% of the workforce(Yang et al. 2025)(Sang et al. 2024)(Putri et al. 2025). This phenomenon shows that strengthening the business performance of SMEs not only impacts economic growth but also directly influences community welfare (Li et al. 2025)(Chaichana et al. 2024)(Gimeno-Arias, Santos-Jaén, and Pemartín González-Adalid 2024) Langkat Regency, as one of the regions with potential in the trade, agriculture, and service sectors, has a significant number of SMEs.

However, the poverty rate in Langkat Regency remains relatively high compared to other districts/cities in North Sumatra Province(Valdez-Juárez et al. 2025)(Kalina, Lhota, and Kalender 2025)(Asiri, Al-Somali, and Maghrabi 2024). This indicates a gap between the economic potential of SMEs and their contribution to improving the socio-economic conditions of the community (Omidvar, Confetto, and Palazzo 2025)(Rodrigues and Rua 2025)(Türkeş, Bănacu, and Stoenică 2024). The issue at hand is how to maximize the business performance of SMEs in Langkat Regency to significantly reduce poverty rates (Regif et al. 2023)(Isa et al. 2023)(Al-Somali et al. 2024). SME business performance is influenced by various internal factors such as product innovation, digitalization or technology utilization, and marketing strategies (Dzage and Szabados 2024)(Ndlovu, Ndlovu, and Ebewo 2025)(Mkhize et al. 2025)

Currently, there are few comprehensive studies examining the SME Business Performance Model in Reducing Poverty Rates in Langkat Regency. The growth of micro and small businesses indirectly creates opportunities for activities that can reduce poverty rates (Khusnah and Soewarno 2024)(Suparyati et al. 2023). The following table shows data on the TPT, poor population, and economic growth in Langkat Regency.

Tabel 1. TPT Data, % Poor Population and % Economic Growth in Langkat Regency

Year	TPT	% Poor Population	% Economic Growth	
2024	6,33	9,23	4,93	
2024	6,88	9,49	4,69	
2022	5,12	10,12	3,08	

Source: BPS. Sumut.go.id

Total

No

The table above shows that the open unemployment rate (TPT) from 2022 to 2024 has increased, while the number of poor people has decreased, followed by economic growth. The data shows the gap between theory and reality in Langkat Regency. The existence of MSMEs in Langkat Regency plays an important role in reducing poverty. The following is a table of the number of MSMEs based on the types of businesses in Langkat Regency.

Table a Number of MCMEs by Type of Pusiness

Table 2. Nulliber of Mishies	by Type of Busiliess	
Type of Business	Total	
Trade Type MSMEs	4.191	
MSMEs of industry type	28.273	
MSMEs of agriculture type	1.670	
Service tyoe MSMEs	4.987	
UMKM Jenis Jasa	2.496	
Other types of MSMEs	3.694	

Sourcer: Dinas Koperasi dan UMKM Kabupaten Langkat

The table above shows that the number of MSMEs in Langkat Regency continues to grow, especially in the trade, culinary, and agriculture sectors. However, MSME players still face major

challenges in improving their business performance. Therefore, it is important to formulate an MSME business performance model that is relevant to the local characteristics of Langkat Regency and can make a real contribution to reducing poverty (Rahman et al. 2023)(Lamaile and Trihadmini 2022). This research is expected to serve as the basis for formulating more effective SME empowerment strategies that directly impact the improvement of the local community's standard of living (Penulis and Rakhmat Yanti 2024)(Anatan and Nur 2023)(Djatmiko and Pudyastiwi 2020).

The first factor influencing SME business performance is product innovation. Product innovation in SMEs is a crucial factor in enhancing competitiveness and economic growth. Product innovation is something that SME actors must undertake to improve business performance, as creativity can serve as a driver of business success in competition (Toni et al. 2025)(Sharabati et al. 2024)(Siuta-Tokarska, Kowalik, and Juchniewicz 2025). Product innovation can be defined as the ability to create a new product. SME actors must prioritize creativity in product development as an effort to enhance SME business performance. If innovation capabilities are strong, it will facilitate SME actors in achieving their objectives(Tsiu et al. 2025)(Bidasari et al. 2023)(Lestari and Amri 2020).

This study (Singh and Kaunert 2024) shows that product innovation and digital marketing simultaneously have a positive and significant impact on SME development. Partially, (Tirtayasa and Rahmadana 2023)both also have a positive and significant impact on SME development. According to (Natoil, Sopi, and Hartarini 2023), product innovation, such as new products, quality improvements, and flavor and packaging diversification, positively impacts customer growth and revenue. Research (Fathia et al. 2022) shows that product innovation has a positive impact on SME performance. Organizational learning and market orientation significantly moderate this relationship, strengthening the positive effect of product innovation on SME performance. Research (Kurnia, Raharja, and Sugiarto 2019) shows that product innovation has a significant impact on marketing performance in SMEs. This indicates that product innovation can enhance SME marketing performance.

The phenomenon of SME product innovation in Langkat Regency is still ineffective in optimally driving SME business performance. Efforts to enhance creativity, utilize digital technology, and provide training tailored to SME needs are essential to improve SME business performance in Langkat Regency.

The second factor influencing SME business performance is digitalization or technology utilization. Digitalization or the use of technology opens access to broader markets, improves production efficiency, and expands business opportunities (Diwayana Putri Nasution 2023). As SMEs develop digitally, the potential for job creation increases, directly impacting the reduction of unemployment and poverty rates (Weldeslassie et al. 2019). By leveraging technologies such as ecommerce, social media, and digital applications, SMEs can sell their products to much broader markets, even across regions and countries(Purwanto et al. 2022)(Julius Adebiyi, Ally Banjo, and Omonze Regin 2017)(Harini et al. 2023) .

In the study (Nasutra, Djufri, and ... 2021) Digitalization of MSMEs as a Strategy for Community Economic Empowerment and Poverty Alleviation: The Role of Digital Technology in Empowering MSMEs and Its Impact on Community Welfare in Rural Areas, digitalization of MSMEs in the informal sector has a positive impact on job creation and income growth (Bismala 2017). This study (Bisnis 2024) emphasizes that digital transformation is one of the instruments for achieving inclusive economic growth. The SEM model shows that digitalization has a direct impact on improving SME business performance and an indirect impact on reducing poverty through increased household economic capacity (Meiria, Hamid, and Aishah 2019).

The phenomenon observed is that digitalization or the use of technology by SMEs in Langkat Regency is still in its early stages and requires serious support, both in terms of training, infrastructure, and policies that prioritize digital economic empowerment. If these challenges can be overcome, SME digitalization has great potential to improve the business performance of small

businesses while contributing to poverty reduction through increased income and expanded market access.

The third factor influencing SME business performance is marketing strategy. Marketing strategies play a crucial role in the success of SMEs, as they can help businesses introduce products, reach customers, increase sales, and strengthen their market position amid competition (Saraswati and Sudarmiatin 2024)(Sudirman and Pusat 2023)(Ismanu, S., Kusmintarti, A., & Riwajanti 2021). The implementation of the ASEAN Economic Community (AEC) as a sign of a free market within the ASEAN region, including Indonesia, presents both opportunities and challenges for domestic producers (Si et al. 2020)(Nuarisa, Aziz, and Retnowati 2024)(Mila, Nurhidayah, and Finansial 2022). The ease with which goods from the ASEAN region enter Indonesia intensifies competition in the market (Nasution 2022).

According to (Hamzah et al. 2025), digital marketing strategies have been proven to increase the competitiveness and sales of MSMEs. The use of social media such as Instagram, WhatsApp Business, and e-commerce is an important factor in successful promotion (Umkm et al. 2018). The digitization of marketing strategies not only facilitates customer access to products but is also a key factor in improving the operational effectiveness and growth of MSMEs (Dorfleitner, Hornuf, and Kreppmeier 2021). The implementation of effective marketing strategies, such as branding, storytelling, and promotions through social media, has been proven to increase customer loyalty and positively impact the performance of SMEs (Yilmazel 2025). Changes in consumer trends in the new normal era require SMEs to adjust their marketing strategies (Merhi and Bregu 2020). This adaptation significantly influences the sustainability and improvement of business performance (Munadjat, Tasrif, and Bayu 2016).

The phenomenon of insufficient SME marketing strategies in Langkat Regency is caused by several factors, including a lack of education, limited digital infrastructure, minimal promotion, and weak collaboration among SME actors. The lack of technological understanding and low participation in training are obstacles that need to be addressed to achieve optimal results. SME marketing strategies in Langkat Regency demonstrate efforts by various parties to improve SME business performance through digitalization and training. Therefore, an integrated approach is needed through regular training, digital infrastructure support, and synergy between the government, businesses, and academia.

The urgency of this research is based on the absence of a business performance model for micro, small, and medium enterprises in reducing poverty rates in Langkat Regency. The research problem statement is whether a business performance model based on innovation, digitalization, or technology utilization and marketing strategies can reduce poverty rates in Langkat Regency? Furthermore, this research is very important and needed, especially by MSME actors in Langkat Regency, to improve business sustainability and its contribution to reducing poverty rates. The planned target is to produce a concept and model of MSME business performance and its impact on poverty reduction in Langkat Regency.

## 2. RESEARCH METHOD

The type of research is a quantitative model with descriptive verification. According to (Helwig, Hong, and Hsiao-wecksler 2021), descriptive refers to a problem formulation that is related to questions about the existence of independent variables, while verification refers to testing the hypothesis of descriptive research results with statistical calculations so that the results show whether the hypothesis can be rejected or accepted. In this study, the descriptive method was used to describe or explain the problem related to the independent variable, namely Business Performance in Langkat Regency. The subjects of this study were 50 MSMEs located in Langkat Regency, spread across twenty-three districts. The data collection technique in this study involved distributing questionnaires to 50 respondents.

Data analysis was performed using Structural Equation Modeling (SEM) with a Partial Least Squares (PLS SEM) approach. The analysis stages included testing reliability and validity using Cronbach's Alpha and Composite Reliability (CR) to measure internal consistency, as well as Average Variance Extracted (AVE) to test convergent validity. Next, structural model analysis was conducted to test the direct relationship between business performance, product innovation, and marketing strategy, as well as to measure poverty rates as a mediating variable. To confirm the mediating effect, the bootstrapping method was used, which allows for testing the significant role of poverty rates in strengthening the relationship between independent and dependent variables.

## 3. RESULTS AND DISCUSSIONS

# 3.1 Respondent Characteristics



Source : Data by Researchers (2025)

Based on the diagram above, the number of respondents who participated in the survey can be seen from several parameters, which are expected to illustrate the model for improving the business performance of MSMEs in Langkat Regency. The number of respondents based on the types of MSMEs in Langkat Regency consists of 35% culinary, 30% agriculture, 20% local products (handicrafts, herbs, processed products), and 15% services.

#### 3.2 Model Formation

#### a. Model Basis

The model formation in this study is based on a combination of two research models, namely the research (Nasutra et al. 2021). Based on these two models, there are several theories that form the model, so this study will explain in detail the theories that form the model:

#### b. Model I

Aspects of corporate management serve as guidelines for conducting business management. Although they are small and medium-sized enterprises, SMEs need to implement business management to effectively apply management principles, enabling them to evaluate their operations and track their progress. Throughout this process, a SWOT analysis is conducted to identify strengths, weaknesses, opportunities, and threats in business competition. SMEs must consider how to conquer competitive markets outside their region. Several criteria that can serve as the basis for measuring SME performance include business turnover, customer satisfaction, employee satisfaction, production efficiency and effectiveness, and product distribution. Product distribution provides

opportunities to access broader markets, which impacts the business turnover that can be achieved. Customer satisfaction needs to be measured because the basis for business development is customer needs, desires, and satisfaction. If customers are satisfied, the opportunities for business development will be greater. From an internal business perspective, employee satisfaction needs to be maintained. Employees who are satisfied with what they receive from the company they work for will give their best performance for the company. Satisfaction is not only about compensation but also about the quality of internal relationships.



Figure 1. MSMEs Management Model

#### 3.3 Data Testing Results

This stage involves assessing convergent validity criteria. An indicator is considered to have good validity if it has a factor loading value greater than 0.70. Factor loading values between 0.50 and 0.60 can still be retained for models that are still in the development stage. Based on the estimation results using the SmartPLS 3.0 application, the output is as shown in the table below:

#### a. Evaluation of Measurement Model

Table 1. Measurement of convergent validity and internal consistency reliability

	Poverty Rate (Y)	Digitization (X2)	Product Innovation (X1)	Marketing Strategy (X <sub>3</sub> )
AK1	0,6451			
AK2	0,6514			
AK3	0,5771			
AK4	0,4778			
AK5	0,5972			
DG1		0,4743		
DG2		0,6500		
DG3		0,5806		
DG <sub>4</sub>		0,6708		

Source: Data by Researchers (2025)

Based on the table above, it can be seen that there are 20 indicators consisting of 4 variables. The first is the Product Innovation variable, which consists of 5 indicators. Of the 5 indicators, the value is < 0.70. Next is the digitization variable, which consists of 5 indicators. Of the 5 indicators, all have values < 0.70. The Marketing Strategy variable consists of 5 indicators. Of the 5 indicators, all have values < 0.70. The Poverty Rate variable consists of 5 indicators. Of the 5 indicators, all have values < 0.70.

An individual's reflexive measure is considered high if it is above 0.70 and correlates with the construct being measured (Nasutra et al. 2021). Based on this criterion, indicators with loading values below 0.70 are excluded from the analysis, and re-estimation is performed. However, for the initial stage of scale development, loading values between 0.50 and 0.60 are considered sufficient.

## b. Construct Reliability and Average Variance Extracted (AVE)

The results of data processing show that:

Table 2. Average Variance Extracted (AVE)

Tuble 2: Average variance Extracted (AVE)			
	Average Variance		
Variable	Extracted (AVE)		
Angka Kemiskinan (Y)	0,506		
Inovasi Produk (X1)	0,569		
Digitalisasi (X2)	0,516		
Strategi Pemasaran (X3)	0,547		
	·		

Source : Data by Researchers (2025)

Table displays data showing that all Average Variance Extracted (AVE) values surpass the 0.5 threshold, confirming that the validity criteria have been met. The results indicate that the average AVE value exceeds the required standard, demonstrating that the research construct exhibits strong convergent validity. Additionally, the composite reliability score, which exceeds 0.7, affirms that the indicators used in this study effectively measure the intended variables. These findings validate that the research instrument meets the fundamental validity and reliability requirements.

## c. Hypothesis Test Results

Table 3. Direct Effect / Patch Coefficient

			Standard		
	Original Sample (O)	Sample Mean (M)	Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Inovasi Produk (X1) -> Angka					
Kemiskinan (Y)	0,153	0,131	0,099	1.561	0,083
Digitalisasi (X2) -> Angka					
Kemiskinan (Y)	-0.115	-0.096	0,074	1.089	0,192
Strategi Pemasaran (X3) -> Angka					
Kemiskinan (Y)	0,592	0,606	0.089	9.612	0.000

Source: Data by Researchers (2025)

## 3.4 Model Evaluation Results

In this study, testing was conducted using the Partial Least Square (PLS) analysis technique with the smartPLS 3.0 program. The following is the PLS Outer Model program model scheme that was tested:

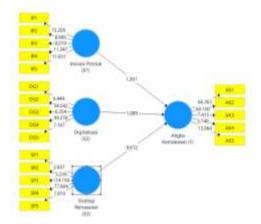


Figure 2. Model Result

The results of processing with SmartPLS 3.00 can be seen in the figure above, where the outer model values between the construct and the variables have met convergent validity because the indicators have validity values above 0.5.

Validation of the MSME competitiveness model in the previous stage showed the factors that influence the competitiveness of MSMEs in Indonesia, consisting of (i) variables that describe the potential/input dimension, namely the availability of resources and environmental conditions; (ii) variables that describe the process dimension, namely business management; (iv) variables describing the performance/output dimension, namely business performance; and (v) variables describing moderator factors or those facilitating the connection between factors in the potential, process, and performance dimensions. An explanation of each variable is as follows:

## a. Product Innovation in Reducing Poverty Rates

Product innovation plays a very important role in reducing poverty rates in Langkat Regency. This regency has enormous potential in terms of natural resources and local wisdom, ranging from the agricultural and plantation sectors to the household industry. However, many MSME players still produce goods conventionally without any innovation that can increase their selling value (Helwig et al. 2021). Through product innovation—whether in terms of packaging, quality, functionality, or the utilization of local technology—products from Langkat can achieve higher competitiveness in both national and international markets (Amelia et al. 2025). Innovation also opens up new business opportunities that contribute to job creation, particularly in rural areas that are hotspots for poverty. As income levels rise through innovative businesses, there will be a direct improvement in living standards and a reduction in poverty rates (Merín-Rodrigáñez et al. 2024). Therefore, the author believes that strengthening product innovation based on local potential is an effective strategy to accelerate economic development and poverty alleviation in Langkat District.

The application of innovation in products enables SMEs in Langkat to increase sales, strengthen brand image, and expand access to digital markets (Nursini 2020). This positively impacts overall business performance, including revenue, profitability, and business sustainability. With innovation, SMEs also become more adaptive to consumer trends and capable of surviving in crisis situations such as pandemics or economic pressures. Therefore, the author believes that strengthening product innovation is a highly relevant strategy for driving local business growth in Langkat District. If supported by training, access to technology, and market support, the impact will not only be felt by businesses but also by the local economy as a whole.

Research (Penulis and Rakhmat Yanti 2024) states that product innovation drives the creation of new value, expands business opportunities, and provides flexibility for companies to respond to market changes. They emphasize that innovative organizations have higher business performance compared to competitors who are stagnant in product development. In the context of SMEs, it was also found that product innovation significantly contributes to increased revenue and operational efficiency, ultimately improving overall business performance. Meanwhile, according to (Brixiová, Kangoye, and Yogo 2020), product innovation is the primary driver in strengthening a company's market position. They explain that companies that actively engage in innovation are able to achieve better performance, including in terms of market share, profits, and business sustainability. This is reinforced (Joo, Kim, and Hwang 2024) by empirical evidence showing a significant positive relationship between product innovation and business performance, both on a small and large scale. Product innovation has a significant impact on improving business performance, particularly for SMEs in Langkat District (Suparyati et al. 2023). This region has great potential across various sectors, such as agriculture, fisheries, processed foods, and handicrafts. However, many businesses still rely on conventional product models, making them less competitive in the ever-changing market. Product innovation in terms of design, quality, packaging, and technology utilization can increase product appeal while expanding the target market.

## b. Digitalization or the Use of Technology in Reducing Poverty Rates

Digitalization is the process of integrating digital technology into all aspects of MSME operations and management, from production, marketing, sales, to customer service. Digitalization is not just a trend but a strategic tool for SMEs in Langkat Regency to improve business performance. This improvement plays a significant role in reducing poverty rates through increased income, job creation, and strengthening the local economy. The implementation of digitalization has proven to significantly enhance the effectiveness, efficiency, competitiveness, and market reach of SMEs. Digitalization is not just a trend but has become a strategic factor in improving SME business performance. SMEs that optimally utilize technology tend to have better performance in terms of sales, marketing, cost efficiency, and business resilience, thereby indirectly contributing to reducing poverty rates through improved well-being of business operators.

Research on digitalization is a key determinant of competitiveness and long-term business performance. There is a positive correlation between digital adoption and business performance. Furthermore, digitalization research significantly impacts SME performance. The use of technology has a positive impact on the managerial and financial performance of SMEs. Meanwhile, e-commerce accelerates the growth of SME businesses. SMEs that adopt digital technology have greater potential to create competitive advantages.

## c. Marketing Strategies in Reducing Poverty Rates

Based on the results of data analysis, it is evident that marketing strategies have a significant impact on reducing poverty rates in Langkat Regency. These findings align with previous research (Mkhize et al. 2025) which states that effective marketing strategies not only impact sales growth and business expansion but also have a significant influence on reducing poverty rates, particularly among small and medium-sized enterprises (SMEs). Marketing strategies are a series of activities

designed to understand consumer needs, create value, and build long-term relationships with customers (Hodija Siti 2018). When SMEs implement the right marketing strategies, they can enhance their competitiveness, expand their market reach, and drive income growth. Research (Anatan and Nur 2023) explains that inclusive marketing strategies focused on low-income communities can empower them to become both producers and active consumers within the economic system. This creates a healthy economic cycle and is one of the most effective ways to reduce structural poverty. In their research (Aditi et al. 2022), it was found that marketing strategies implemented effectively by SMEs, such as leveraging digital media, clear market segmentation, and innovation in promotion and distribution, significantly increase revenue and create new job opportunities. This directly contributes to improving the well-being of the community in the area. Community-based marketing strategies tailored to local needs have proven effective in reaching micro-markets and creating broad social impacts. When local SMEs can sell their products sustainably and competitively, they not only boost their economic activities but also help reduce unemployment and dependence on social assistance.

Marketing strategies have a very significant impact on reducing poverty rates in Langkat Regency. This region possesses abundant natural resources and significant local economic potential, particularly in the agriculture, fisheries, and small and medium industries sectors. Unfortunately, many businesses in this area still face challenges in effectively marketing their products (Rahman et al. 2023). By implementing the right marketing strategies—such as attractive product packaging, competitive pricing, leveraging social media, and selecting appropriate distribution channels—local products can gain a higher competitive edge (Fathia et al. 2022). This enhanced competitiveness will directly impact increased business revenue, the creation of new job opportunities, and higher income for the community (Al-Somali et al. 2024). In addition, digital marketing and promotion through online platforms also provide great opportunities for MSMEs in Langkat Regency to penetrate markets outside the region and even internationally. With broader market access, small businesses that previously only sold products at the village or sub-district level can now scale up their operations. This situation will certainly encourage local economic growth and contribute directly to reducing poverty rates.

## d. Business Performance in Reducing Poverty Rates

Based on the results of data analysis, poverty rates have a significant effect on business performance in Langkat Regency. The results of this study are in line with previous research (Umkm et al. 2018) which states that countries with high poverty rates tend to experience slow economic growth and companies operating in these countries face difficulties in expanding their markets and attracting investment. This affects business performance, which is often limited to the domestic market with low purchasing power. Research (Ismanu, S., Kusmintarti, A., & Riwajanti 2021) shows that regions with high poverty rates tend to have low purchasing power, which hinders SMEs from growing and creating jobs. The inability to reach broader markets reduces the income potential of SMEs, thereby hindering their performance in the long term. Meanwhile, research (Djatmiko and Pudyastiwi 2020) explains that poverty reduces the market's ability to develop efficiently, and MSMEs operating in areas with high poverty rates face difficulties in attracting consumers with sufficient purchasing power. This situation hinders the increase in turnover and performance of MSMEs.

Langkat Regency, an area with a still-high poverty rate, can have a significant impact on business performance in the region, particularly for Micro, Small, and Medium Enterprises (MSMEs). When communities live in poverty, their purchasing power is severely limited, affecting demand for products and services. MSMEs, which are the backbone of the local economy, heavily rely on the domestic market. When people's purchasing power is low, it is difficult for them to increase sales volume and achieve greater profits (Maulana et al. 2025). Additionally, poverty in Langkat Regency also affects the quality of the workforce. Many individuals from poor families struggle to access

## 4. CONCLUSION

This study aims to confirm the design of an indicator model that can influence the business performance of MSMEs. The difference is that at this stage of the study, the design confirmation is carried out by adding the Poverty Rate variable and through primary data collection, which is then processed quantitatively using the Smart PLS 3.0 analysis tool to provide a statistically valid model. From the study results, it was found that adjustments are needed to the model design developed in the previous study. Based on primary questionnaire data from 50 SMEs in Langkat Regency, it was found that the factors influencing SME business performance in Langkat Regency contribute to reducing the poverty rate.

With sincere gratitude and appreciation, I would like to extend my thanks to the Directorate of Research, Technology, and Community Service (DRTPM) of the Ministry of Education, Culture, Research, and Technology for the funding support provided for this research. The financial assistance from DRTPM has been instrumental in facilitating the implementation of a high-quality and impactful study, both academically and practically for the community. This support has greatly encouraged me as a researcher and has motivated continued contributions to the advancement of knowledge and improvement of education in Indonesia. I hope this collaboration will continue to thrive in fostering innovation and promoting research excellence within higher education institutions.

# **ACKNOWLEDGEMENTS**

With deep gratitude and appreciation, I would like to express my sincere thanks to the Directorate of Research, Technology, and Community Service (DRTPM) of the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) for the financial support provided in the implementation of this research. The financial assistance from DRTPM has been instrumental in realizing high-quality and meaningful research activities, both academically and practically beneficial to society. This support not only strengthens my commitment as a researcher but also serves as an incentive to continue contributing to the advancement of knowledge and the improvement of education quality in Indonesia. I hope this collaboration can continue to foster innovation and research progress within the higher education sector.

### REFERENCES

- Aditi, Bunga, Septa Diana Nabella, Arifin Djakasaputra, Dwi Septi Haryani, and Nasib. 2022. "The Trigger For Falling Loyalty Originating From Public Relations And Customer Values And Satisfaction." *International Journal Of Artificial Intelegence Research* 6(1):2022. doi: 10.29099/ijair.v6i1.1.466.
- Al-Somali, Sabah Abdullah, Raneem Rashad Saqr, Arwa Mohammed Asiri, and Najat Abdullah Al-Somali. 2024. "Organizational Cybersecurity Systems and Sustainable Business Performance of Small and Medium Enterprises (SMEs) in Saudi Arabia: The Mediating and Moderating Role of Cybersecurity Resilience and Organizational Culture." Sustainability (Switzerland) 16(5). doi: 10.3390/su16051880.
- Amelia, Ratih, Tyus Windi Ayuni, Amin Hou, Eddy Harnjo, and Manda Dwipayani Bhastary. 2025. "Kontribusi Customer Relationship Management Terhadap Retensi Pelanggan: Kasus Pada Coffeeshop Saga Kahwa." *Ekuivalensi: Jurnal Ekonomi Bisnis* 11(1):179–96.

- Amelia, Ratih, Tyus Windi Ayuni, and Nasib. 2023. "Branding Dan Labeling Sebagai Upaya Strategi Pemasaran Produk Umkm Binaan Di Kota Medan." *Jurnal Bina Bangsa Ekonomika* 4(4):7628–35.
- Anatan, Lina, and Nur. 2023. "Micro, Small, and Medium Enterprises' Readiness for Digital Transformation in Indonesia." *Economies* 11(6). doi: 10.3390/economies11060156.
- Anjaningrum, Widiya Dewi, Nur Azizah, and Nanang Suryadi. 2024. "Spurring SMEs' Performance through Business Intelligence, Organizational and Network Learning, Customer Value Anticipation, and Innovation Empirical Evidence of the Creative Economy Sector in East Java, Indonesia." *Heliyon* 10(7):e27998. doi: 10.1016/j.heliyon.2024.e27998.
- Asiri, Arwa Mohammed, Sabah Abdullah Al-Somali, and Rozan Omar Maghrabi. 2024. "The Integration of Sustainable Technology and Big Data Analytics in Saudi Arabian SMEs: A Path to Improved Business Performance." Sustainability (Switzerland) 16(8). doi: 10.3390/su16083209.
- Ayuni, Tyus Windi. 2022. "ANALYSIS OF PROVINCIAL INSPECTORATE ROLE AS INTERNAL GOVERNMENT AUDITOR IN INCREASING THE QUALITY OF LOCAL FINANCIAL REPORTS AND ITS OBJECTIVE IN AUDIT (Case Study Of North Sumatera Government) under a Creative Commons Attribution-NonCommercial 4.0 Intern." *Jurnal Ekonomi* 11(03):2022.
- Bidasari, Bidasari, Sahrir Sahrir, Goso Goso, and Rahmad Solling Hamid. 2023. "Peran Literasi Keuangan Dan Literasi Digital Dalam Meningkatkan Kinerja UMKM." Owner 7(2):1635–45. doi: 10.33395/owner.v7i2.1404.
- Bismala, Lila. 2017. "Model Manajemen Usaha Mikro Kecil Dan Menengah (UMKM) Untuk Meningkatkan Efektivitas Usaha Kecil Menengah." *Jurnal Entrepreneur Dan Entrepreneurship* 5(1):19–26. doi: 10.37715/jee.v5i1.383.
- Bisnis, Jurnal Manajemen. 2024. "DOI Prefik: Https://Doi.Org/10.55927/Jambak.V3i1.8766 (ISSN-E:" 3(1):37–46. Brixiová, Zuzana, Thierry Kangoye, and Thierry Urbain Yogo. 2020. "Access to Finance among Small and Medium-Sized Enterprises and Job Creation in Africa." Structural Change and Economic Dynamics 55(13708):177–89. doi: 10.1016/j.strueco.2020.08.008.
- Chaichana, Thanapong, Graham Reeve, Chalalai Jaisan, and Yasinee Chakrabandhu. 2024. "Modelling and Assessing New SME Digital Business Status for Visualising Virtual Economics and Sustainability Economic Indicators: Empirical Evidence from Poultry Business." *Heliyon* 10(9):e30624. doi: 10.1016/j.heliyon.2024.e30624.
- Changalima, Ismail Abdi, Ismail Juma Ismail, and David Amani. 2025. "Driving SME Performance through Technological Absorptive Capacity and E-Business Innovation." Sustainable Technology and Entrepreneurship 4(1):100089. doi: 10.1016/j.stae.2024.100089.
- Diwayana Putri Nasution. 2023. "Reduce of Poverty Indonesia for Best Effect of MSMEs." *Rowter Journal* 2(1):36–45. doi: 10.33258/rowter.v2i1.831.
- Djatmiko, Agoes, and Elisabeth Pudyastiwi. 2020. "Obstacles and Challenges of Indonesia'S Micro, Small and Medium Enterprises (Umkm) in Facing the Covid-19 Pandemic." *Jurnal Pendidikan Kewarganegaraan Undiksha* 8(3):117–23.
- Dorfleitner, Gregor, Lars Hornuf, and Julia Kreppmeier. 2021. "Promise Not Fulfilled: Fintech Data Privacy, and the GDPR." SSRN Electronic Journal (January). doi: 10.2139/ssrn.3950094.
- Dzage, Emmanuel Jeffrey, and György Norbert Szabados. 2024. "The Relationship of Corporate Social Responsibility with Business Performance—A Bibliometric Literature Review." Sustainability (Switzerland) 16(7). doi: 10.3390/su16072637.
- Fathia, Yolanda Dienul, Sevira Julistia, Nofi Bestari, and Mutiara Intan Permata. 2022. "The Influence of Micro and Small Enterprises (MSEs) on Poverty Reduction in Indonesia 2015-2019." *Dinamika Ekonomi* 13(2):242–46. doi: 10.29313/de.v13i2.9637.
- Gimeno-Arias, Fernando, José Manuel Santos-Jaén, and María Pemartín González-Adalid. 2024. "How Are Companies Going to Business Digitalization? An Explanation Based on the Implementation of e-Commerce with Data of SMEs." *Data in Brief* 56:110788. doi: 10.1016/j.dib.2024.110788.
- Hamzah, Hanafi, Siti Norida Wahab, Norashida Othman, and Gaven Ferguson. 2025. "Greening the Hospitality Industry: Examining Institutional Influences and Perceived Benefits of EMS in Malaysian SME Hotels." *Journal of Hospitality and Tourism Insights* 8(1):161–82. doi: 10.1108/JHTI-12-2023-0922.
- Harini, Sri, Diah Pranitasari, Meldasari Said, and Endri Endri. 2023. "Determinants of SME Performance: Evidence from Indonesia." *Problems and Perspectives in Management* 21(1):471–81. doi: 10.21511/ppm.21(1).2023.40.
- Helwig, Nathaniel E., Sungjin Hong, and Elizabeth T. Hsiao-wecksler. 2021. Metode Penelitian Kualitatif Dan Metode Penelitian Kuantitatif.
- Hodija Siti, Delis Arman. 2018. "( Journal of Perspectives on Financing and Regional Development ) Master

- Program in Economics Universitas Jambi Jurnal." *Jurnal Perspektif Pembiayaan Dan Pembangunan Daerah Vol. 6. No.3, November December 2018 ISSN*: 2338-4603 (*Print*); 2355-8520 (*Online*) 6(3):371–76.
- Isa, Muzakar, Liana Mangifera, Aflit Nuryulia Praswati, Helmia Khalifa Sina, Agus Wahyudi, Agus Suwondo, and Wawan Kurniawan. 2023. "Model Penguatan Kelembagaan Usaha Mikro Dan Kecil Untuk Pengentasan Kemiskinan." *Jurnal Kebijakan Pembangunan Daerah* 7(1):108–23. doi: 10.56945/jkpd.v7i1.221.
- Ismanu, S., Kusmintarti, A., & Riwajanti, N. I. 2021. "The Effects of Product Innovation, Process Innovation and Government Policy on SMEs Performance: Evidence from Indonesia\*. Journal of Asian Finance, Economics and Business, 8, 305-11." *Journal of Asian Finance, Economics and Business* 8(12):305-11. doi: 10.13106/jafeb.2021.vol8.no12.0305.
- Joo, Kyuhyeon, Heather Markham Kim, and Jinsoo Hwang. 2024. "Do Consumers' Perceived Attributes and Normative Factors Affect Acceptance Behavior Towards Eco-Friendly Self-Driving Food Delivery Services? The Moderating Role of Country Development Status." *Sustainability (Switzerland)* 16(22). doi: 10.3390/su16229918.
- Julius Adebiyi, Abosede, Hassan Ally Banjo, and Oko-Oza Omonze Regin. 2017. "Performance of Small and Medium Enterprises in Lagos State: The Implications of Finance." *Acta Universitatis Danubius* 13(5):271–77.
- Kalina, Vaclav, Jan Lhota, and Zeynep Tugçe Kalender. 2025. "Effective Project Portfolio Management for SMEs: A Conceptual Framework Using Business Intelligence Tools." *Procedia Computer Science* 253(2024):745–56. doi: 10.1016/j.procs.2025.01.136.
- Khusnah, Hidayatul, and Noorlailie Soewarno. 2024. "Human Capital Readiness and Global Market Orientation to Business Performance: The Mediation Role of Green Innovation." *Contaduria y Administracion* 69(4):1–19. doi: 10.22201/fca.24488410e.2024.4950.
- Kurnia, Cahya Mukti Dwi, Edy Raharja, and Yohanes Sugiarto. 2019. "An Investigation of Factors Affecting SMEs Performance: An Indonesian Case." *Diponegoro International Journal of Business* 2(1):52. doi: 10.14710/dijb.2.1.2019.52-56.
- Lamaile, E. F., and N. Trihadmini. 2022. "Analysis of the Influence of Micro, Small and Medium Business Growth on Poverty Reduction in 5 ASEAN Countries." *International Journal of Small and ...* 7(3):59–71.
- Lestari, Kurnia Cahya, and Arni Muarifah Amri. 2020. Sistem Informasi Akuntansi (Beserta Contoh Penerapan Aplikasi Sia Sederhana Pada UMKM). 1st ed. Yogyakarta: Deepublish.
- Li, Lufeng, Ghansham Das, Raza Ali Tunio, Aamir Ali, and Shehriyar Memon. 2025. "Green Innovation Dynamics in SMEs: Unraveling the Interplay of Approach, Expenditure, and Performance." *Sustainable Futures* 10(June):100888. doi: 10.1016/j.sftr.2025.100888.
- Literasi, Terhadap, and Keuangan Di. n.d. "Adopsi Financial Technology Dan Implikasinya."
- Maulana, Hartomi, Kazi Tarique, Rahma Yudi Astuti, Fajar Surya, Ari Anggara, Soritua Ahmad, and Ramdani Harahap. 2025. "Impact and Resilience Strategy of MSMEs in Facing the COVID-19 Pandemic: An Empirical Study on MSMEs in Indonesia." 7(2):99–114.
- Meiria, Endah, Abdul Hamid, and Riris Aishah. 2019. "SME's GROWTH PATTERN AS A SUCCESS BUSINESS INDICATOR THROUGH SHARIA ECONOMIC IN REDUCING POVERTY IN INDONESIA." *Archives of Business Research* 7(1):1–17. doi: 10.14738/abr.11.5781.
- Merhi, Mohammad, and Klajdi Bregu. 2020. "Effective and Efficient Usage of Big Data Analytics in Public Sector." *Transforming Government: People, Process and Policy* ahead-of-p. doi: 10.1108/TG-08-2019-0083.
- Merín-Rodrigáñez, Joan, Àngels Dasí, and Joaquín Alegre. 2024. "Digital Transformation and Firm Performance in Innovative SMEs: The Mediating Role of Business Model Innovation." *Technovation* 134:1–33. doi: 10.1016/j.technovation.2024.103027.
- Mila, Shofiatul, Siti Abdillah Nurhidayah, and Literasi Finansial. 2022. "Peran Literasi Finansial Dan Inovasi Digital Dalam Meningkatkan Business Performance Dan Business Sustainability Pada UMKM Di Kabupaten Pekalongan." Akuisisi 18(02):212–27.
- Mkhize, Ayaphila, Katleho D. Mokhothu, Mukhodeni Tshikhotho, and Bonginkosi A. Thango. 2025. "Evaluating the Impact of Cloud Computing on SME Performance: A Systematic Review." *Businesses* 5(2):23. doi: 10.3390/businesses5020023.
- Munadjat, Muhammad Tasrif, and Kartib Bayu. 2016. "Deskriptif (Descriptive Research),." Sosiohumaniora 18(1):77-78.
- Nasution, Diwayana Putri. 2022. "Analisis Ekowisata Kreatif Terhadap Peningkatan Ekonomi Dan Pengentasan Kemiskinan Di Kabupaten Langkat." *Journal of Economics and Regional Science* 2(2):101-100. doi: 10.52421/jurnal-esensi.v2i2.213.
- Nasutra, N., M. R. Djufri, and ... 2021. "Pengembangan Model Peningkatan Kinerja Usaha Mikro Kecil Menengah

- (UMKM) Di Kota Palu: Validasi Kuantitatif Model." Jurnal Stie ... 13(3):116-34.
- Natoil, Natoil, Sopi Sopi, and Yovita Mumpuni Hartarini. 2023. "Enhancing Marketing Performance in Msmes: Empirical Research From Semarang, Central Java, Indonesia." *Management Analysis Journal* 12(3):385–94. doi: 10.15294/maj.v12i3.72739.
- Ndlovu, Mpilwenhle Nomvuyo, Elona Nobukhosi Ndlovu, and Patrick Ebong Ebewo. 2025. "The Intersection of Business Models and SME Performance: A Bibliometric Analysis of Research Trends." *Administrative Sciences* 15(4). doi: 10.3390/admsci15040143.
- Nuarisa, Risma Hafida, Muhammad Abdul Aziz, and May Shinta Retnowati. 2024. "The Empowerment of Micro, Small Medium Enterprises (MSMEs) Bussiness Through Productive Zakat as an Effort to Alleviate Poverty and Unemployment in Indonesia." *Journal of Economics, Bussiness and Management Issues* 2(2):149–58. doi: 10.47134/jebmi.v2i2.188.
- Nursini, Nursini. 2020. "Micro, Small, and Medium Enterprises (MSMEs) and Poverty Reduction: Empirical Evidence from Indonesia." *Development Studies Research* 7(1):153–66. doi: 10.1080/21665095.2020.1823238.
- Ochoa Crespo, Juan, José Domínguez, and Diego Guzmán. 2025. "An Analytical Study of Structural Equation Modeling on Organizational Resilience and Financial Performance in Ecuadorian SMEs." *Decision Analytics Journal* 15:100575. doi: 10.1016/j.dajour.2025.100575.
- Omidvar, Mohammadsadegh, Maria Giovanna Confetto, and Maria Palazzo. 2025. Business Model Innovation: A Bridge Between Corporate Social Responsibility and Successful Performance for Medium-Size Enterprises (SMEs) in the Digital Era. Vol. 13.
- Pebriani, Agnes, Ratih Amelia, Tyus Windi Ayuni, Tina Linda, and Ahmad Rivai. 2025. "Examining the Appeal of Quality Service: A Study on the Impact of Product Quality on Purchase Decisions at Hani Salon." *Journal of Business Integration and Competitive* 1(2):31–41.
- Penulis, Info, and Noer Rakhmat Yanti. 2024. "Arus Jurnal Sosial Dan Humaniora (AJSH) Eksplorasi Etnomatematika Konsep Rumah Adat Muna." 4(2).
- Purwanto, Agustinus Hariadi Djoko, Muhammad Nashar, Yuwan Jumaryadi, Wadudi Wibowo, and Ani Mekaniwati. 2022. "Improving Medium Small Micro Enterprise' (MSME) Performance." *International Journal of Advanced and Applied Sciences* 9(5):37–46. doi: 10.21833/IJAAS.2022.05.005.
- Putri, Aghnia Nadhira Aliya, Pri Hermawan, Isti Raafaldini Mirzanti, Maureen Meadows, and Rosie Sadraei. 2025. "Exploring Green Growth in SMEs: Global Trends, Challenges, and Future Directions." Foresight and STI Governance 19(1):16–31. doi: 10.17323/fstig.2025.23708.
- Rahman, Sarli, Suyono Suyono, Onny Setyawan, and Mimelientesa Irman. 2023. "Analysis of SMEs Performance Based on Innovation Practice, Market Orientation, and Innovation Barriers." *Diponegoro International Journal of Business* 6(2):77–89. doi: 10.14710/dijb.6.2.2023.77-89.
- Regif, Surya Yudha, Marisa SB Seran, Imanuel Yohanes Naif, Andre Pattipeilohy, and Lilis Saputri. 2023. "Literasi Digital Ekonomi Hijau Terhadap Pemberdayaan UMKM Desa Di Kabupaten Langkat." *Jurnal Ilmu Politik Dan Pemerintahan* 9(1):49–69. doi: 10.37058/jipp.v9i1.6922.
- Rodrigues, Diogo, and Orlando Lima Rua. 2025. "Open Innovation as a Model to Boost the Business Success of SMEs in the Automotive Sector: A Multiple Case Study." *Journal of Open Innovation: Technology, Market, and Complexity* 11(3):100577. doi: 10.1016/j.joitmc.2025.100577.
- Sang, Bin, Rafidah Md Noor, Ezlika Mohd Ghazali, and Nasrin Aghamohammadi. 2024. "How Does Supply Chain Collaboration Improve Innovation Performance of SMEs? The Roles of Absorptive Capacity and Business Environment." *Journal of Innovation and Knowledge* 9(4):100607. doi: 10.1016/j.jik.2024.100607.
- Saraswati, Thusy Tiara, and Sudarmiatin Sudarmiatin. 2024. "The Role Product Innovation on Business Performance Thought Competitive Advantage as Mediation Variable." *International Journal of Business, Law, and Education* 5(2):1581–92. doi: 10.56442/ijble.v5i2.635.
- Sharabati, Abdel Aziz Ahmad, Ahmad Ali Atieh Ali, Mahmoud Izzat Allahham, Alhareth Abu Hussein, Ahmad Fathi Alheet, and Abdelaziz Saleh Mohammad. 2024. "The Impact of Digital Marketing on the Performance of SMEs: An Analytical Study in Light of Modern Digital Transformations." *Sustainability* (*Switzerland*) 16(19):1–25. doi: 10.3390/su16198667.
- Si, Steven, David Ahlstrom, Jiang Wei, and John Cullen. 2020. "Business, Entrepreneurship and Innovation Toward Poverty Reduction." *Entrepreneurship and Regional Development* 32(1–2):1–20.
- Singh, Bhupinder, and Christian Kaunert. 2024. "Innovative Business Models in Digital and Virtual Reality for the Gig Economy: Space-Age Sustainable Development Projecting Smart Business Practices." Business Transformation in the Era of Digital Disruption 127–56. doi: 10.4018/979-8-3693-7056-8.choo5.
- Siuta-Tokarska, Barbara, Małgorzata Kowalik, and Justyna Juchniewicz. 2025. "Factors in the Development of Family Businesses in the SME Sector: Analysis and Assessment of Their Importance in Strategic Enterprise

- Management." Sustainability (Switzerland) 17(5). doi: 10.3390/su17051821.
- Sudirman, Jalan Jenderal, and Jakarta Pusat. 2023. "Kementerian Pendidikan, Kebudayaan, Riset Dan Teknologi Jalan Jenderal Sudirman, Senayan, Jakarta Pusat 10270 Https://Bima.Kemdikbud.Go.Id PENDAFTARAN KOSABANGSA CALON PENDAMPING 2023." 10270.
- Suparyati, Agustina, Nurhayati Nurhayati, Sumiyati Sumiyati, and Astrid Maria Esther. 2023. The Influence of MSME Performance and Inclusive Finance on Poverty Reduction in Indonesia. Atlantis Press International BV.
- Tirtayasa, Satria, and Muhammad Fitri Rahmadana. 2023. "Mediating Effect of Product Innovation on Market Orientation and Marketing Performance of SME'S During the COVID-19 Pandemic in Indonesia." *International Journal of Sustainable Development and Planning* 18(2):393–99. doi: 10.18280/ijsdp.180207.
- Toni, Nagian, Thomas Sumarsan Goh, Yusuf Ronny Edward, and Calen. 2025. "Supply Chain Sustainability and Financial Performance: The Role of E-Commerce, Digital Banking and Digital Marketing of Smes." *ECONOMICS Innovative and Economics Research Journal* 13(1):487–507. doi: 10.2478/eoik-2025-0027.
- Tsiu, Shao V., Mfanelo Ngobeni, Lesley Mathabela, and Bonginkosi Thango. 2025. "Applications and Competitive Advantages of Data Mining and Business Intelligence in SMEs Performance: A Systematic Review." *Businesses* 5(2):22. doi: 10.3390/businesses5020022.
- Türkeş, Mirela Cătălina, Cristian Silviu Bănacu, and Laurențiu Stoenică. 2024. "The Effect of Supply Chain Sustainability Practices on Romanian SME Performance." *Sustainability (Switzerland)* 16(7). doi: 10.3390/su16072887.
- Umkm, Pengaruh, Terhadap Tingkat, Dengan Pendapatan, and Domestik Bruto. 2018. "Fokus Ekonomi." 376–90. Valdez-Juárez, Luis Enrique, Elva Alicia Ramos-Escobar, José Alonso Rui-Zamora, and Edith Patricia Borboa-Álvarez. 2025. "Drivers and Pressures of Industry 4.0 That Generate Marketing Innovation and Affect the Innovative Performance of Mexican SMEs: From the Perspective of Open Innovation." Journal of Open Innovation: Technology, Market, and Complexity 11(2). doi: 10.1016/j.joitmc.2025.100541.
- Valle, Lislee, Emily Costan, Felix Costan, Edralin General, Gerly Alcantara, Ronnel Victor Kilat, Ivy Batican, Gladies Mae Olivar, and Denilin Avila. 2022. "Community Extension MSME's Entrepreneurial Activities in Relation to Poverty Reduction." Frontiers in Sociology 7. doi: 10.3389/fsoc.2022.1038006.
- Weldeslassie, Hailai Abera, Claire Vermaack, Kibrom Kristos, Luback Minwuyelet, Mahlet Tsegay, Negasi Hagos Tekola, and Yemane Gidey. 2019. Contributions of Micro, Small and Medium Enterprises (MSMEs) to Income Generation, Employment and GDP: Case Study Ethiopia. Vol. 12.
- Yang, Man, Peter Gabrielsson, Mika Gabrielsson, and Seppo Pynnönen. 2025. "Turning Decision-Making Logic into International Performance among SMEs: Revealing the Importance of International Entrepreneurial Marketing." *International Business Review* 34(4). doi: 10.1016/j.ibusrev.2025.102457.
- Yilmazel, Sefa Emre. 2025. "THE EFFECT OF PERCEIVED RISKS IN CONTENT PRODUCTION WITH ARTIFICIAL INTELLIGENCE ON CONSUMERS' ATTITUDES AND BEHAVIORAL." (March).