



# Utilization Of Big Data In Business Analysis In Micro, Small And Medium Enterprises (MSME) In Order To Increase The Scale Of Economic Business In The Sumatra Region

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## ABSTRACT

The purpose of this study is to analyze the potential and inhibiting factors in MSME businesses in North Sumatra in order to increase the economic scale of these businesses. This research uses a mixed method approach, combining quantitative and qualitative analysis. Secondary data was obtained from sources such as the Central Bureau of Statistics, the Office of Communication and Information, and Bank Indonesia. The quantitative approach was used to provide an overview of MSMEs and economic conditions in the region. The qualitative approach provides an in-depth understanding of the challenges, opportunities and factors affecting the development of MSME. The results revealed that MSME growth in North Sumatra Province still faces a number of challenges. MSME growth is not yet optimal, digital technology adaptation is limited, marketing strategies and product quality need to be improved, and access to capital is still an obstacle. Determinants such as product registration in ecatalogue, management training, increased utilization of information technology, improved product quality, and expanded market access were identified as important measures to improve MSME growth. This research shows that MSME in North Sumatra Province have the potential to contribute more to regional economic growth if the challenges faced can be overcome. Better marketing strategies, adaptation of digital technology, improvement of product quality, and expansion of market access can be key in improving the growth of MSME. Through the recommendations generated, it is expected that the government and businesses can design effective measures to support the sustainable growth of MSME and the regional economy in North Sumatra Province.

## INTRODUCTION

Law of the Republic of Indonesia Number 20 of 2008 concerning Micro, Small and Medium Enterprises (MSME) Article 1 explains that micro enterprises refer to productive businesses owned

by individuals or individual business entities, and must meet the criteria stipulated in this law. Therefore, micro enterprises refer to economic activities that stand alone, carried out by individuals or business entities that are not incorporated in subsidiaries, branches of companies, or have direct or indirect relationships with micro, small, or large enterprises that meet the criteria stipulated in this law. Article 6 describes MSME as net worth or asset value that does not include land and buildings for business premises, or annual sales income (Government of the Republic of Indonesia, 2008; (Hasanah, Rahmattullah, & Setiawan, 2021)).

Indonesia has experienced an economic crisis that caused a significant decline in the national economy. Many large companies in various sectors stagnated or even ceased operations in 1998. However, on the contrary, Micro, Small and Medium Enterprises (MSME) managed to survive and become the backbone of the Indonesian economy during the financial crisis. MSME are one of the sectors that grow sustainably in the national economy. During the crisis, MSME function as productive employment providers (Herry Porda Nugroho Putro, Rusmaniah, Jumriani, Handy, & Mutiani, 2021). In addition, MSME are also known as types of businesses that rely on labor intensively, and do not require special requirements such as certain levels of education or skills. MSME operate with relatively little capital and adopt simple technology. To this day, the vital role of MSME in the Indonesian economy remains significant, both in terms of the number of business units, job opportunities, and national economic growth as measured through Gross Domestic Product (Amelia, Arisanty, & Kumalawati, 2021; Ananda & Susilowati, 2017; H. P. N Putro, Anis, Arisanty, & Hastuti, 2020; Rahmah, Hasanah, & Mutiani, 2021).

Micro, Small and Medium Enterprises (MSME) have a very important role in national economic development. Increasing the scale of MSME businesses has the potential to contribute significantly to overall economic growth. The contribution of MSME to Indonesia's economic growth reaches around 60%, making them an important driving force in the economy (Suryani, 2018). Therefore, developing MSMEs is a crucial factor in increasing the overall economic business scale.

In the era of digital transformation and advances in information technology, Micro, Small and Medium Enterprises (MSME) have significant opportunities to utilize big data resources (Big Data) in improving their business performance and scale. MSME play a crucial role in the global and national economy, as significant contributors to economic growth, job creation, and poverty alleviation. In Indonesia, especially in the Sumatra region, MSME play a strategic role in driving the local economy and maintaining national economic sustainability (Chong & Chan, 2016; Fosso Wamba et al., 2015).

In the national context, MSME have an important role in the Indonesian economy. Data from Indonesia's Central Statistics Agency (BPS) indicates that in 2020, the contribution of MSME to Gross Domestic Product (GDP) reached around 61.21% (BPS, 2021). In addition, MSME also play a role in creating jobs, reducing unemployment, and reducing economic disparities between regions (Ilmi, 2021). Furthermore, MSME also have the potential to increase financial inclusion and drive local economic growth in the Sumatra region, which has unique natural and cultural wealth.

However, the challenges faced by MSME cannot be ignored. Limited financial resources, limited digital skills, and limited access to technology and information often hinder the growth and development of MSME (Adawiyah, 2013; Holy, 2017). This is where Big Data can come into play as a solution to minimize these barriers (Hair Jr. et al., 2017). By utilizing large and diverse data, MSME can identify new market opportunities, optimize supply chains, and design more effective marketing strategies (Marini & Hasibuan, 2020; Hussain & Malik, 2019). This is what makes the use of Big Data in business analytics important. Big Data offers the potential to collect, process, and analyze large and diverse amounts of data, which can provide deep insights into market trends, consumer behavior, and competitor strategies (Hair Jr. et al., 2017; Hasan et al., 2019).

The growth of Micro, Small and Medium Enterprises (MSME) in Indonesia until 2022, as recorded in the report of the Ministry of Cooperatives and Small and Medium Enterprises, has experienced significant development by reaching 8.71 million business units. This phenomenon has had a positive impact on the Indonesian economy, providing optimism for future economic growth potential (Edelia & Aslami, 2022). In terms of geographical distribution, the spread of MSME actors occurs in all 34 provinces in Indonesia, showing the uniformity of micro, small and medium enterprises in various regions.

This achievement is also reflected in the ranking of provinces with the highest number of MSME. West Java Province ranked first with 1,494,723 MSME business units, followed by Central Java with 1,457,126 business units, and East Java with 1,153,576 business units. Although the three provinces have dominance in terms of the number of MSME, a significant difference occurs with the province that ranks fourth, namely DKI Jakarta, with a total of 658,365 MSME business units. This stark difference in numbers shows variations in the development of MSME between regions, with Java in general being the largest growth center. However, the distribution of MSME is not limited to Java. North Sumatra Province also stands out with the fifth rank, having a total of 595,779 MSME, this achievement is also reflected in the ranking of provinces with the highest number of MSME. West Java Province ranked first with 1,494,723 MSME business units, followed by Central Java with 1,457,126 business units, and East Java with 1,153,576 business units. Although the three provinces have dominance in terms of the number of MSME, a significant difference occurs with the province that ranks fourth, namely DKI Jakarta, with a total of 658,365 MSME business units. This stark difference in numbers shows variations in the development of MSME between regions, with Java in general being the largest growth center. However, the distribution of MSME is not limited to Java. North Sumatra Province also stands out with the fifth rank, having a total of 595,779 MSME. This illustrates that the development of MSME is also evenly distributed to several regions outside Java, indicating the important role of MSME in providing employment and economic contributions in various locations. In terms of the difference in numbers, it can be seen that the difference between the province with the largest number of MSME (West Java) and the province with the fourth place (DKI Jakarta) is very striking, reaching a difference of 836,358 business units. In addition, a significant difference in number was also seen between the provinces of Central Java and DKI Jakarta, with a difference of 495,211 units. These differences may be influenced by geographical, population, infrastructure, and government support factors in each province.

Overall, the growth of MSME in Indonesia until 2022 has had a positive impact on the economy, with an even distribution throughout the province. Although the dominance of the number of MSME is concentrated in Java, provinces outside Java also make a significant contribution, reflecting the important role of MSME in creating jobs, diversifying the economy, and supporting sustainable development in various regions of Indonesia.

North Sumatra has a rich economic diversity, with a variety of rapidly growing MSME sectors, such as the food and beverage industry, handicrafts, tourism, and agriculture. This diversity provides an opportunity for an in-depth analysis of how the sectors interact with each other and contribute to the regional economy.

The geographical location of North Sumatra which is close to neighboring countries such as Malaysia and Singapore provides considerable export potential for MSME in this province. This research focused on export market potential can provide insight into marketing strategies, product quality improvement, and international business network development that can be applied by MSME throughout Indonesia. In addition, the diversity of cultures and customs in North Sumatra also has a significant impact on MSME business patterns. This research can analyze how these cultural factors influence business decision making, leadership style, and innovation in MSME. The results of this research will not only benefit North Sumatra, but also provide valuable insights for other provinces in Indonesia in optimizing the potential of their MSME by considering local cultural factors.

The availability of abundant natural resources in North Sumatra, such as agriculture and forestry, provides an opportunity to examine how MSME can contribute to sustainable development and more environmentally sound natural resource management. This kind of research can stimulate innovation in sustainable production and marketing, while still paying attention to environmental conservation. Thus, researching MSME in North Sumatra offers ample opportunities to understand the unique dynamics of the local economy, cultural factors influencing business, export opportunities, and contribution to sustainable development. The results of this research can provide valuable guidance for economic policy making and MSME development throughout Indonesia.

This research in-depth analyzes the factors that influence the growth of MSME, including regulatory aspects, financial access, product innovation, marketing, and operational management. In addition, the study also highlights the role of information technology and digitalization in helping MSME increase their visibility and reach a wider market, especially in an increasingly digitally connected era. The findings of this study provide strategic guidance for stakeholders, such as the government, financial institutions, and business actors, to design more effective policies and programs in supporting the sustainable growth of MSME in North Sumatra. Thus, this research becomes an important foundation in efforts to increase the contribution of MSME to the regional economy through empowerment and sustainable business development.

## LITERATURE REVIEW

This research adopts the philosophical foundation of constructivism. Constructivism emphasizes that knowledge is not an objective entity, but the result of subjective interpretation and construction by individuals (Hadiwijaya, 2023). In this context, this study will understand the use of Big Data in MSME business analysis in the Sumatra region from the perspective of MSME owners themselves. The theoretical framework of this research refers to the Theory of Adoption of Innovation. This theory addresses why and how individuals or organizations adopt innovations or new technologies (Rogers, 2003). In the context of this study, this theory is relevant because it will describe the factors that influence MSME owners in utilizing Big Data as an innovation in their business analysis (Venkatesh et al., 2003). Previous research has also shown that factors influencing technology adoption, such as perceived usability and ease of use, are also relevant in the context of Big Data technology adoption in business (Ramayah et al., 2010). Several previous studies have provided insight into the use of Big Data in the context of MSMEs. Hasan et al. (2019) identified factors that influence the adoption of Big Data in MSMEs. Marini and Hasibuan (2020) explore the impact of the adoption of this technology on the performance of MSMEs. These studies provide valuable initial insights in understanding the context of the use of Big Data in MSME business analysis in the Sumatra region. The conceptual framework of this research involves three main elements: Utilization of Big Data (innovation), Business Analytics, and Impact on MSME Performance. Big Data is used by MSME owners in analyzing and making better business decisions. The results of this analysis will ultimately affect the business performance and growth of MSMEs.

Related to the research paradigm used, this study uses an interpretive paradigm. This paradigm emphasizes social construction and individual subjective interpretation of reality (Denzin & Lincoln, 2005). In this paradigm, this study will analyze how MSME owners in the Sumatra region understand and apply the use of Big Data in their business analysis. This interpretive approach recognizes that an individual's meaning and understanding of this technology will provide valuable insights in the context of the utilization of technology in business (Guba & Lincoln, 1989). This research will also use the diverse views of MSME owners to understand the various ways they apply Big Data in business analysis and identify differences in their experiences and perspectives (Creswell, 2007). Through an SLR approach with a focus on the

use of Big Data in MSME business analysis in the Sumatra region, this study aims to provide deep insights into how MSME owners face, understand, and utilize this technology to optimize their operations and business growth.

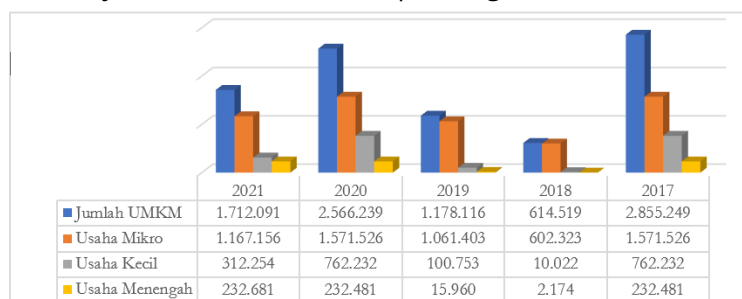
## METHODS

This research adopts a mixed method approach to analyze business in micro, small and medium enterprises (MSME) with the aim of increasing the scale of economic business in the North Sumatra region. A quantitative approach will be used in the first phase of this research, where secondary data will be obtained from sources such as the Central Bureau of Statistics (BPS), the Communication and Information Agency (Diskominfo), and Bank Indonesia. These data will illustrate the general picture of MSME and economic conditions in the region.

The qualitative approach will provide a deeper understanding of the challenges, opportunities, and internal and external factors that influence the development of MSME. The results of quantitative and qualitative analysis will be combined to provide comprehensive recommendations in increasing the economic scale of MSMEs in the region

## RESULTS

The medium-term development plan of North Sumatra Province for the period 2019–2023 focuses on identifying the main problems that need to be addressed in determining priority programs in the field of cooperatives, small and medium enterprises. In this case, there are several problems that are still faced. First, the percentage of active cooperatives and the number of micro and small enterprises have not reached the expected target. This happens because the ability of MSME actors to adapt to the digital era is still limited. Second, the marketing strategy of cooperative and MSME products, especially in tourist destination areas, is still not optimal. Third, the quality of MSME products still needs to be improved in order to compete in the export market. Fourth, access to capital for MSME is still inadequate. To achieve success in overcoming this problem, several important determinants need to be considered. First, steps need to be taken to make MSME products listed in the catalogue. Second, socialization and training are needed to improve management, motivation, creativity, and the use of information technology in entrepreneurship. Third, the importance of improving product quality and efforts to expand market access for MSME. Fourth, better facilitation needs to be done in terms of access to capital for MSME. By paying attention to these factors, it is hoped that development programs in the cooperative sector, small and medium enterprises in North Sumatra Province can run more effectively and have a positive impact. By implementing these strategies, North Sumatra Province has the opportunity to increase the contribution of the cooperative sector, MSME, and the economy as a whole. By combining the approaches of regional economic development theory and business management theory, medium-term development plans can be implemented more effectively and successfully achieve the set development goals.



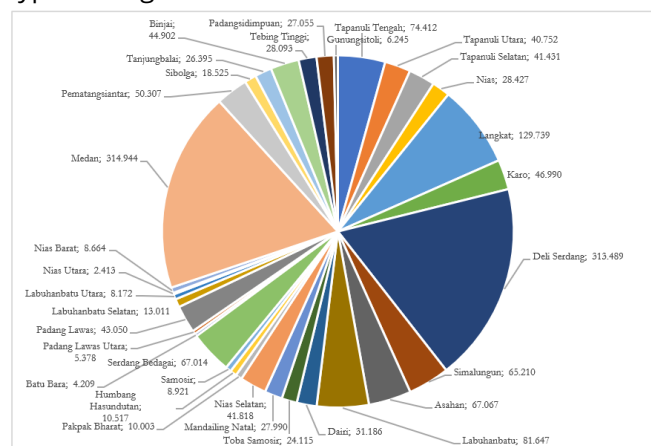
**Table 1.** Number of MSME by District/City in North Sumatra Province, 2021

Source: (Diskominfo, 2022)

Table 1 shows the number of Micro, Small and Medium Enterprises (MSME) in various Regencies / Cities in North Sumatra Province in 2021. This data illustrates the distribution of MSME in three different business size categories in each region. Based on the Cooperatives and Small and Medium Enterprises Office of North Sumatra Province in 2022, it shows that Deli Serdang Regency has the largest total number of businesses with 313,489 businesses, consisting of 200,354 Micro Enterprises, 63,079 Small Enterprises, and 50,056 Medium Enterprises. Then, Langkat Regency also has a significant number of businesses, namely 129,739 businesses, with the majority in the Micro Business category. On the other hand, West Nias Medan City, is the area with the least number of MSME, only 8,664 businesses, including 2,027 Micro Enterprises, 225,674 Small Enterprises, and 987 Medium Enterprises. Overall, in 2021, the total number of MSME in North Sumatra Province reached 1,712,091 businesses. This number has decreased significantly compared to 2020 which reached 2,566,239 businesses. This decline can be due to a variety of economic, social, and environmental factors affecting small and medium-sized businesses in the area. The data provides an important overview of the structure of MSME in North Sumatra Province, and can be the basis for further analysis related to economic and business developments in the region.

Business development, both micro and small enterprises (MSE) and medium and large enterprises (UMB) in North Sumatra are recorded in detail every 10 (ten) years through the Economic Census. The distribution of the number of Micro, Small and Medium Enterprises (MSME) in each region based on districts / cities in North Sumatra Province, it can be seen that Deli Serdang and Medan are districts / cities with the largest number of MSME in North Sumatra, with 313,489 and 314,944 respectively. These two regions have significant potential in the MSME sector, possibly due to factors such as accessibility, infrastructure, and large market potential. On the other hand, there are also several regions such as Central Tapanuli, North Tapanuli, South Tapanuli, and Nias which have the number of MSME above 20,000, but lower than Deli Serdang and Medan. These regions also play an important role in economic contribution through the MSME sector. However, there are also districts/cities with a relatively lower number of MSME, such as North Nias, Coal, South Labuhan Batu, and others. Possible factors affecting the low number of MSME in these regions include infrastructure challenges, accessibility, and more limited market potential.

In terms of geographical distribution, the distribution of MSME in North Sumatra Province is quite even, covering coastal areas such as Tanjung Balai, Sibolga, and Gunung Sitoli, as well as inland areas such as Karo and Dairi. This shows that there are efforts to develop the MSME sector inclusively in various types of regions.



**Figure 1.** Distribution of the number of Micro, Small and Medium Enterprises (MSME) of North Sumatra Province, 2021  
Source: (Diskominfo, 2022)

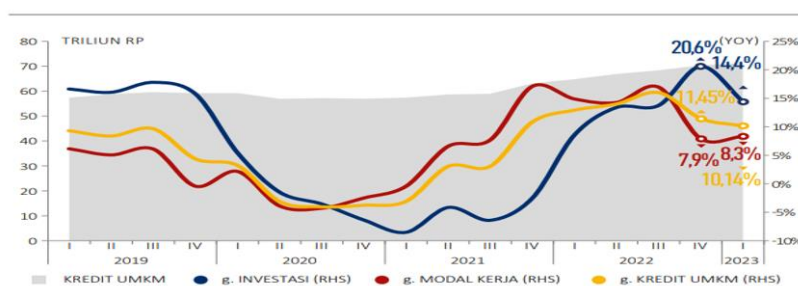
Increasing micro, small and medium enterprises (MSME) as described in Law No. 20 of 2008 on MSME involves various steps, one of which is to give the government the task to facilitate and encourage the expansion of funding sources and access to credit. However, in the midst of several problems and challenges faced in efforts to empower MSME, the main problem remains limited access to funding. Generally, MSME players, especially those operating in micro and small enterprises, still rely heavily on personal or family capital, or loans from private investors or the informal sector. This situation arises because formal financial institutions generally have limited reach or network only to MSME that are considered worthy of banking services. As a result, for micro and small-scale enterprises that have not been considered feasible for banking services, obtaining credit remains difficult (Sari, 2016).

The development of MSME cannot be separated from the challenges that need to be overcome. Limited capital, difficulty in market access, suboptimal management, and lack of skills possessed by MSME entrepreneurs are obstacles that need attention (Anggraeni, 2013; Risqiana, sofa Nurmaulida, Masfupah, & Arumsari, 2021). MSME-focused business analysis should consider these constraints and find suitable solutions to address each challenge.

In an effort to increase the scale of MSME economic business, several strategies can be implemented. First, increasing access to capital is key. MSME can seek better sources of funding, such as loans from financial institutions or government programs dedicated to supporting MSME growth. Second, the development of MSME entrepreneurs' skills through training and education on business management, marketing, and finance will help them better manage their businesses.

Furthermore, increasing market access is also a crucial strategy. MSME need to take advantage of opportunities to expand their market reach, whether through online marketing, cooperation with distributors, or participation in exhibitions and business events. In addition, increased operational efficiency is also needed. Adopting appropriate technology and improving operational processes, inventory management, and production will have a positive impact on the efficiency and productivity of MSME. Finally, collaboration and partnership with other parties, be it large companies or other MSME, are also steps that can be taken. Through partnerships, MSME can support each other and take advantage of mutual opportunities to expand market reach and overcome obstacles faced. By implementing these various strategies, MSME have the potential to increase the scale of their economic business and make a greater contribution to overall national economic growth (Rezki, 2014).

In recent years, there has been a trend that shows a significant decline in credit growth in the financial sector. This trend is not only applicable in general, but also worrying in the Micro, Small and Medium Enterprises (MSME) sector which has an important role in the economy. Although credit growth has been a key driver of economic activity and business development, certain factors have contributed to this decline. Shrinking overall credit growth, especially in the MSME sector, indicates potential problems that need to be addressed seriously. Therefore, it is important to analyze the root causes of this downward trend in order to formulate appropriate strategies to stimulate sustainable economic growth and support the development of MSME more effectively.



**Graph 1.** MSME lending by type of credit

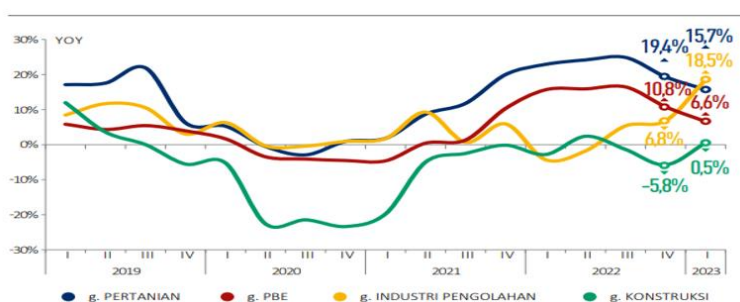


Source: (Bank Indonesia, Mei 2023)

Graph 1 shows a downward trend in overall credit growth and particularly in the MSME sector. In the first quarter of 2023, the amount of loans provided to MSME reached IDR 71.3 trillion with an annual growth of 10.14%, decreasing from growth of 11.45% in the previous quarter. This reflects challenges in MSME access to credit, which could be affected by unfavorable economic conditions or changes in banking policy. More specifically, the most dominant type of credit is working capital credit, which accounts for around 69% of total MSME loans. Working capital credit growth increased 8.3% in the period, but slowed from the previous growth of 7.9%. On the other hand, investment credit growth experienced a significant decline from 20.6% in the previous quarter to 14.4% in the first quarter of 2023.

The data analysis provided illustrates several significant implications related to economic conditions and the MSME sector. The decline in overall credit growth indicates a possible economic slowdown that could impact various sectors. More specifically, the decline in credit growth in the MSME category reflects more specific economic pressures on micro, small and medium enterprises. The focus on increasing working capital loans suggests that MSME may be more likely to maintain their liquidity and operational continuity in uncertain economic conditions. Conversely, a decline in investment credit growth can mean that MSME may be reluctant to expand or develop their business in the context of an unstable economy. Thus, this trend may stimulate further consideration of necessary economic policies, such as fiscal stimulus or monetary policy that supports credit growth again and helps maintain the stability of the MSME sector. A more in-depth analysis will help identify the root causes of this decline in credit growth, so as to formulate more appropriate solutions in accordance with broader economic dynamics.

Meanwhile, MSME lending in North Sumatra experienced an interesting growth pattern in relation to business fields (Graph 2). In particular, there have been significant developments in two main sectors, namely the Processing Industry and construction. This growth can be interpreted as a positive indicator for economic activity in the region, with credit disbursement supporting the growth and development of micro, small and medium enterprises in these two sectors. However, it should be noted that this growth trend is uneven in all sectors. Conversely, the Agriculture and Large and Retail Trade (PBE) sectors experienced a decline in MSME lending. This decline may reflect challenges faced by those sectors, such as fluctuations in agricultural commodity prices or changes in consumer behavior.



**Graph 2.** Development of MSME Loans by Economic Sector

Source: (Bank Indonesia, Mei 2023)

It is important to note that growth in the construction sector also has important implications. The increase in credit in the construction sector indicates a boost in construction activity that resumed at the beginning of the year. This may be influenced by factors such as infrastructure programs or policies that encourage investment in the construction sector. This phenomenon provides clues that the development sector is undergoing recovery, which could have a broader positive impact on the regional economy. In addition, the results of this analysis also reveal that the majority of North Sumatran people are engaged in the Processing Industry



sector. This highlights the importance of the sector in contributing to the regional economy. However, keep in mind that these results are a reflection of certain conditions and may be influenced by regional, demographic and economic factors unique to North Sumatra.

Overall, the results of this analysis provide valuable insights for decision makers and economic actors to understand the dynamics of MSME lending based on business fields in North Sumatra. By understanding growth and downward trends within specific sectors, strategic steps can be taken to support business development, mitigate challenges and promote sustainable economic growth.

In the context of trade policy, nationalist groups proposed a concept known as Strategic Trade Policy. This concept bases itself on arguments about the imperfection of competition, in which countries compete in trade in uneven situations in a trade system that tends to be free. Based on this thinking, this concept supports the role of government in developing the economy through greater scale, research and development, and practical experience (learning by doing). In addition, this concept also encourages the integration of technology (Gilpin, 1991). In other words, this view emphasizes the importance of government intervention to support the competitiveness of domestic products in international trade, with the aim of avoiding repeated defeats in global competition. This concept is also in line with the protection argument for *infant industry*, which justifies government actions to provide protection or support to certain sectors. Once the sector becomes strong, the principle of free trade can be applied. Thus, the initially protected sector is not only able to survive in the domestic market (when facing the invasion of imported goods), but also able to expand its presence to the international market (Zaelani, 2019).

The results of the *Digital Competitiveness Index* (EV-DCI) 2023 show that digital competitiveness in Indonesia has increased more evenly. Based on the study, Indonesia's digital competitiveness index in 2023 will reach a score of 38.5, a significant increase from the previous score of only 32.5. In the analysis of the results of this study, it can be seen that the increase in digital competitiveness does not only occur in general, but also penetrates to various regions in Indonesia. Ten provinces were highlighted for recording significant increases in digital competitiveness scores. These provinces are Central Java, West Kalimantan, East Java, Jambi, Bangka Belitung Islands, Papua, Maluku, West Nusa Tenggara, North Sumatra, and Aceh.

The increase in digital competitiveness scores in these provinces indicates progress in the application of digital technology and related infrastructure in these regions. This can mean that efforts to expand access and adoption of digital technology have succeeded in creating a positive impact in increasing competitiveness in various sectors. Increased digital competitiveness can also bring better economic growth potential in the future, with new opportunities created through innovation and technology utilization.



**Figure 2.** 10 Provinces in Indonesia with improved Digital Competitiveness Score

Employment and welfare conditions in North Sumatra have improved significantly in line with the continued domestic economic recovery. In terms of employment, there was an increase

in employment in line with the decline in the Open Unemployment Rate (TPT). In February 2022, TPT reached 5.47%, decreasing from 6.01% in the previous year. This increase was also followed by an increase in the Labor Force Participation Rate (TPAK), which rose from 69.39% in February 2021 to 70.45% in February 2022.

Based on data from the Central Statistics Agency (BPS), the economy of North Sumatra in 2021 was recorded to have a gross regional domestic product (GRDP) based on current prices (ADHB) of IDR 859.87 trillion. There was a growth of 2.61% when measured based on GDP on the basis of constant prices (ADHK) 2010, reaching a value of Rp547.65 trillion compared to the previous year. Although this achievement has increased from 2020 which contracted by 1.07%, it is still below the growth rate before the Covid-19 pandemic which reached above 5%.

In terms of business field, the agricultural sector still plays an important role as the main support for North Sumatra's GRDP, with a contribution of 22.04% throughout 2021. Followed by the processing industry sector which contributed 19.52%, and the large trade and retail sector with a contribution of 18.91%. The most significant growth was recorded in the information and communication sector with a growth rate of 6.51% from the previous year. The financial services and insurance sector also experienced a fairly good growth of 4.46%, followed by the electricity and gas procurement sector with a growth of 4.93%.

In terms of expenditure, household consumption expenditure is still the main driver of North Sumatra's economy, contributing 50.79% of the total. Meanwhile, the contribution of gross fixed capital formation (PMTB) reached 30.56%. The PMTB component experienced the highest growth of 3.47% over the past year, exceeding the growth of other components. Then, there was a growth in government spending of 3.47% and growth in household consumption expenditure of 1.69%. Overall, this shows an improvement in North Sumatra's economy in 2021, although it is still trying to achieve pre-pandemic growth levels. The agricultural and industrial sectors continue to play an important role in supporting GDP, while sectors such as information, communication, financial services, and electricity procurement also contribute positively to economic growth. Nonetheless, challenges remain to accelerate the recovery towards higher growth rates.

In terms of welfare, the poverty rate in North Sumatra decreased in September 2021, decreasing to 8.49% compared to the same period in the previous year, which was 9.14%. This decline can be attributed to the continued economic recovery in the region. In addition, income inequality also shows a decrease along with the decrease in the number of poor people. The poverty depth and severity index also shows a downward trend driven by the ongoing economic recovery in North Sumatra.

However, there are differences in income inequality between rural and urban areas. Rural areas tend to have more balanced income inequality compared to urban areas. Therefore, it is important to pay special attention to improving the welfare of residents in urban areas with the aim of reducing income inequality there. Overall, economic recovery and efforts to reduce income inequality remain an important focus in maintaining and improving labor and welfare conditions in North Sumatra.

North Sumatra's economic recovery in 2022 is expected to take place gradually. However, the economic growth projection has been adjusted due to lower revisions to global and national projections. The economy of North Sumatra is expected to grow in the range of 3.5-4.3%. This correction was mainly influenced by low global economic growth forecasts. The geopolitical conflict between Russia and Ukraine has had a significant impact on supply chains, hampering world trade and increasing prices of a number of commodities, especially food and energy. This situation contributes to global inflationary pressures.

## DISCUSSION

Rising global inflation has stimulated efforts to normalise monetary policy globally. This has the potential to create uncertainty in global financial markets and foreign capital flows in many

developing countries, including Indonesia. In addition, rising global prices can also have an impact on domestic prices, potentially undermining people's purchasing power. Nevertheless, the North Sumatra government has taken steps to adapt economic activity to the new normal. Government stimuli coupled with accommodative fiscal and monetary policies are expected to support the recovery in domestic demand.

However, the economic recovery of North Sumatra is still faced with various challenges. The uneven recovery between developing and developed countries is one of the threats. In addition, there is uncertainty in the global recovery that could affect the economic outlook for North Sumatra. Therefore, appropriate strategy formulation is needed to ensure strong, sustainable, balanced and inclusive economic growth. Priority measures need to be taken to support this goal and maintain regional economic stability.

## CONCLUSION

The results of the study revealed a number of main problems facing the development of MSME in North Sumatra Province. One of the significant challenges is the suboptimal growth of MSME, including the target percentage of active cooperatives and the number of micro and small enterprises that have not been achieved. In addition, adaptation to the digital era is also still limited, creating obstacles in keeping up with technological developments. Marketing strategy and product quality improvement are also emerging as important issues. Product quality and marketing capabilities become key elements in winning the competition in the market. However, it was found that many MSME need to improve their marketing strategies and improve product quality to achieve better competitiveness. Challenges in access to capital are also clearly illustrated. MSME still experience difficulties in gaining access to adequate financial resources, which are necessary for business growth and sustainability. To address these issues, several determinants have been identified. First, registration of MSME products *in ecatalogue* and management training are considered important steps in overcoming growth constraints. Furthermore, increasing the use of information technology among MSME players will help them adapt to the growing digital era.

Improving product quality and expanding market access are also important focuses. By improving product quality, MSME can increase their competitiveness in the market. Meanwhile, expanding market access will open up new opportunities for MSME to increase sales and growth. Nevertheless, challenges in terms of access to capital still need serious attention. Efforts in providing better access to capital facilities to MSME will support the growth and sustainability of their business.

Through the implementation of this strategy, it is hoped that development programs in the cooperative sector, MSME, and the economy as a whole can run more effectively in North Sumatra Province. A combined approach between regional economic development theory and business management is considered the most effective way to achieve the established development goals. The number of MSME per district/city in North Sumatra Province in 2021 also provides an overview of the distribution and structure of MSME in the region. The trend of growth and decline in the number of MSME can reflect economic dynamics and regional factors affecting the MSME sector. Analysis of lending to MSME shows a downward trend in credit growth in several sectors, highlighting challenges in access to finance for MSME. The concept of Strategic Trade Policy was also discussed, underlining the government's role in supporting domestic product competitiveness in international trade. However, economic recovery and welfare in North Sumatra are still facing global challenges such as geopolitical conflicts and uncertainty in economic recovery. Therefore, efforts are needed from the government and decision makers to formulate strategies that support economic recovery, improve welfare and achieve sustainable economic growth in North Sumatra Province

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