



Examining the Profits and Losses of Medan City Roadside Ditch Scrapping by the Medan City Government on MSMEs

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Abstract

The practice of digging roadside ditches by the Medan City Government is an important part of the flood mitigation strategy and improvement of the urban drainage system. However, this practice not only provides benefits for reducing flood risk, but also has a significant impact on Micro, Small and Medium Enterprises (MSMEs) around the area. This research aims to investigate the dynamics of profit and loss from the practice of trenching for MSMEs in Medan, focusing on identifying the challenges they face and opportunities to improve the sustainability of their businesses. Through a triangulation approach, including direct surveys, interviews with stakeholders, and secondary data analysis, this study reveals the complexity of the impact of trenching practices on MSMEs and the adaptation strategies adopted. The results show that MSMEs experience accessibility problems, material losses, and damage to business infrastructure due to this practice. However, MSMEs have also taken adaptation steps such as product diversification and increased connectivity. Support from sustainability-oriented public policies has also helped MSMEs increase their competitiveness and resilience. Despite this, challenges in implementing sustainable policies remain the main focus, with limited resources and lack of coordination between government agencies as the main obstacles. In conclusion, this research highlights the need for a holistic approach and close collaboration between stakeholders to create an environment that supports the growth and sustainability of MSMEs amidst changes in urban infrastructure.

Keywords: MSMEs, Business environment, Medan City Government, Mitigation, Ditch digging

Introduction

Roadside ditch digging has become an integral part of the government's efforts to improve urban drainage systems and reduce the risk of flooding. This practice covers

infrastructure aspects and has significant implications for the local economic ecosystem, especially for Micro, Small, and Medium Enterprises (MSMEs) operating around the area. City governments, including the Medan City Government, often practice ditch digging as part of a flood mitigation strategy (Khan et al., 2022). Even though it has benefits in reducing the risk of flooding, ditch dredging also has a non-negligible impact on MSMEs operating around the road being dredged. This research examines the dynamics of profit and loss from digging roadside ditches carried out by the Medan City Government for MSMEs. The Medan City Government was chosen as the focus of the research because it is one of the many local governments in Indonesia that actively carry out ditch digging.

MSMEs play an essential role in the local economy, often providing significant employment opportunities and major contributors to economic growth at the community level (Sudarmanto et al., 2023). However, ditch-digging activities carried out by the government can disrupt MSME operations, such as hampered access and material losses. This research will provide a deeper understanding of the impact of trenching practices on MSMEs in Medan, with the main aim of identifying the challenges they face and opportunities to improve the sustainability of their businesses (Endris & Kassegn, 2022). Thus, it is hoped that the results of this research can become a basis for developing more inclusive and sustainable policies in supporting MSMEs. The results of this research will make an essential contribution in the context of sustainable urban development by providing policymakers with better insight into how urban infrastructure policies can be adjusted to better consider the sustainability of MSMEs. Apart from that, the results of this research can also provide practical guidance for MSMEs in dealing with the impacts of changes in urban infrastructure (Wang et al., 2023).

Through this research, concrete policy recommendations and innovative solutions will emerge to overcome the challenges faced by MSMEs due to the practice of ditch digging (Asmah & Rompegading, 2024). Thus, this research has the potential to provide a significant positive impact on MSMEs and Medan society as a whole.

Literature Review

Roadside Ditch Scraping in an Urban Context

Ditch digging on the side of the road is a method that is often applied in urban drainage management to reduce the risk of flooding and improve water flow. A study by Smith et al. 2018 emphasized the importance of efficient drainage infrastructure to manage stormwater in urban areas. They stated that this practice is one of several strategies commonly adopted by local governments to maintain the effectiveness of drainage channels in the face of high rainfall intensity, which can support environmental health and public safety (Zhang et al., 2021).

Additionally, regular drainage system maintenance is essential to ensure its performance remains optimal. Scraping activities not only help anticipate flooding problems but also reduce the accumulation of rubbish and sedimentation, which can obstruct water flow. Therefore, this effort requires good coordination between various government agencies and active community participation. The success of effective drainage management will depend heavily on the ability

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to maintain and upgrade existing infrastructure, which is in line with ongoing urban development and climate change (Wahyu, 2017).

The Important Role of Micro, Small and Medium Enterprises (MSMEs) in the Local Economy

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in the local economy, significantly contributing to job creation and economic growth. In research conducted by Jones and Kutan in 2020, it was stated that MSMEs are often considered the backbone of the local economy, especially in developing countries, including Indonesia. MSMEs support economic stability at the primary level and encourage diversification of economic activities. This factor makes them essential to inclusive economic development and plays a vital role in reducing poverty (Abisuga-Oyekunle et al., 2020).

The existence of MSMEs also stimulates innovation and entrepreneurship among local communities. MSMEs facilitate economic growth from the ground up by providing a platform for individuals to develop new ideas and market their products or services (Sari & Kusumawati, 2022). This increases local competitiveness, attracts investment, and opens access to broader markets. In addition, MSMEs support economic sustainability and adaptation amidst market and technological changes, providing flexibility for local communities to adapt to rapidly changing global dynamics. Therefore, supporting and strengthening the MSME sector is essential for the government and stakeholders to ensure equitable and inclusive economic growth (Maksum et al., 2020).

Impact of Urban Infrastructure on MSMEs

The study conducted by Rahman et al. in 2019 highlighted that urban infrastructure development projects, including ditch digging, can significantly impact Micro, Small, and Medium Enterprises (MSMEs). These projects often cause disruptions in access, result in material losses, and reduce the attractiveness of the business environment, all of which can affect MSME operations (Anderson et al., 2019). This disruption can hamper MSMEs' ability to operate effectively, limit customer access and delivery of goods, and potentially reduce revenue. Therefore, policymakers and urban planners need to consider the long-term impact of infrastructure development on MSMEs and design effective mitigation strategies to minimize inconvenience and support the continuity of their businesses (Yanti et al., 2023).

To minimize the negative impact of infrastructure projects on Micro, Small and Medium Enterprises (MSMEs), concrete steps need to be taken that involve collaboration between various stakeholders (Virmani et al., 2022). First, stakeholder consultation and involvement are essential, where MSME owners and local stakeholders are invited to participate in planning and implementing infrastructure projects. This aims to understand their needs and concerns and find solutions together. Furthermore, it is essential to plan the development of optimal routes and times so that projects such as ditch dredging are carried out at times that do not disrupt peak business hours for MSMEs and choose routes that do not make it difficult to access their businesses (Sipahi, 2020).

In addition, providing fair compensation to MSMEs directly affected by infrastructure projects is essential, including compensation for material losses and reduced income during the construction period. To ensure the continuity of MSME operations during project implementation, adequate transportation and access alternatives must be provided for MSME customers and entrepreneurs, such as diversion routes or additional public transportation services.

The Challenges for MSMEs due to the digging of roadside ditches

The challenges faced by Micro, Small, and Medium Enterprises (MSMEs) due to roadside ditch digging have been the subject of in-depth research. According to research by (Kumar et al. 2021), several key challenges have been identified. First, decreased accessibility for customers is a significant problem. Ditch digging often disrupts the main access route, making it difficult for customers to reach the MSME business (Finch, 2004). This condition has the potential to reduce the number of customers and sales. Second, damage to business infrastructure is also a frequent impact. The ditch-digging process sometimes causes damage to buildings, driveways, or other facilities MSMEs use (Maksum et al., 2020). This can disrupt daily operations and even require additional costs for repairs. Also, decreasing income is a severe problem MSMEs face due to operational disruptions caused by ditch digging. If a business is forced to close temporarily or experiences a decrease in activity, MSME income will decrease, affecting the welfare of owners and employees (Leckel et al., 2020). Therefore, it is essential to understand and overcome these challenges so that MSMEs can remain sustainable in the face of environmental changes (Fairuz Rifqi Abdurahman et al., 2023).

Adaptation and Mitigation Strategies for MSMEs

A study by Ahmed and Begum 2018 emphasized the importance of adaptation and mitigation strategies for micro, small, and medium enterprises (MSMEs) facing changes in urban infrastructure (Kumar & Suppiah, 2023). This research suggests several strategic actions MSMEs can take to adapt to the changing environment. Among them is product diversification, which helps MSMEs reduce the risk of business failure by expanding market coverage and sources of income (Adhimursandi et al., 2024). Increasing connectivity, such as utilizing digital technology to maintain communication with customers and suppliers, is vital in maintaining smooth operations. Additionally, collaboration with local governments can enable MSMEs to access support and resources that can assist in navigating infrastructure changes (Tsang, 2002). These strategies support MSMEs in facing short-term challenges and strengthen their position in a competitive and dynamic economy.

The Role of Public Policy in Supporting the Sustainability of MSMEs.

Research conducted by (Li et al. in 2020) shows that implementing public policies that support the sustainability of Micro, Small, and Medium Enterprises (MSMEs) positively impacts local economic growth (Endris & Kassegn, 2022). These policies include increased accessibility, which makes it easier for MSMEs to reach broader markets and resources, as well as financial assistance that helps overcome capital barriers often faced by small businesses (Tavengerwei, 2018). In addition, skills training offered to MSME owners and their workers can increase their competitiveness and resilience in facing market and technological

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changes (Prasanna et al., 2019). If implemented effectively, these policies support the growth of MSMEs and contribute to overall economic stability and progress.

The Challenges in Sustainable Policy Implementation

Research by (Wang et al. in 2018) revealed that although the importance of the sustainability of Micro, Small and Medium Enterprises (MSMEs) in the context of urban infrastructure has been recognized, effective policy implementation often encounters obstacles (Harvie, 2019). Some of the challenges identified include limited resources, which may affect the government's ability to support MSMEs adequately (Zamberi Ahmad, 2012). Effective coordination between government institutions is also an obstacle, resulting in policies that need to be more synchronized and efficient (Zamberi Ahmad, 2012). These obstacles require improvements in management systems and resource allocation and increased collaboration between various institutions to produce a more integrated approach and support the sustainability of MSMEs in a dynamic urban environment.

Research Method

The research method that will be used in this study involves a triangulation approach, which includes direct surveys with owners of affected Micro, Small, and Medium Enterprises (MSMEs), in-depth interviews with relevant stakeholders, as well as analysis of secondary data related to ditch digging activities and their impact on MSMEs, in Medan (Zamberi Ahmad, 2012). The live survey will provide direct insight from the perspective of MSME owners on how moat scraping impacts their business operations and performance (Matsoso, 2023). In-depth interviews with stakeholders, such as local government representatives, non-governmental organizations, and business associations, will broaden understanding of the policy context and perceptions of the impact of ditch digging (Bamana et al., 2021). Secondary data analysis will enable a broader understanding of historical trends and statistics related to trench dredging activities and their impact on MSMEs. With this approach, this study can provide a comprehensive understanding of the dynamics of the relationship between ditch dredging practices and MSMEs in Medan.

Result/Findings

The research results show that the practice of digging roadside ditches carried out by the Medan City Government significantly impacts Micro, Small, and Medium Enterprises (MSMEs) in the area. One of the main impacts is disruption in accessibility for MSMEs, which causes a decrease in customers and difficulties in delivering goods. Apart from that, several MSMEs also experienced material losses due to changes in urban infrastructure, with damage to business infrastructure disrupting daily operations. However, the research also found that MSMEs have adopted various adaptation and mitigation strategies to overcome the negative impacts of ditch dredging. Product diversification is one of the most commonly used strategies, where MSMEs try to expand their product portfolio to reduce the risk of business failure

(Latifah et al., 2021). In addition, increasing connectivity, such as using digital technology to communicate with customers and suppliers, has also proven effective in maintaining smooth MSME operations.

Implementing public policies oriented towards the sustainability of MSMEs has also been proven to have a positive impact. Policies that improve accessibility provide financial assistance, and offer skills training have helped MSMEs increase their competitiveness and resilience to environmental change. However, research also identifies several challenges in sustainable policy implementation (McLean & Borén, 2015). Limited resources and ineffective coordination between government agencies are the main obstacles to supporting the sustainability of MSMEs amidst changes in urban infrastructure.

Overall, this research shows that roadside ditch digging has a complex impact on MSMEs in Medan. Despite facing challenges, MSMEs have adopted various adaptation and mitigation strategies, and support from sustainability-oriented public policies has also made a positive contribution. In this context, local governments need to continue to improve the implementation of policies that support MSMEs and strengthen cross-sector collaboration to create a conducive environment for the growth and sustainability of MSMEs.

Discussion

The research results highlight the complexity of the impact of digging roadside ditches on Micro, Small, and Medium Enterprises (MSMEs) in the Medan area. Although this practice aims to improve urban infrastructure and reduce flood risks, its impact on MSMEs must be addressed. Disruptions in accessibility, material loss, and damage to business infrastructure are real challenges MSMEs face due to changes in urban infrastructure. However, these findings also reveal that MSMEs have actively adopted various adaptation and mitigation strategies. Product diversification and increasing connectivity are essential in maintaining the continuity of MSME operations amidst environmental changes. In addition, support from sustainability-oriented public policies has helped MSMEs increase their competitiveness and resilience to environmental changes (Anaman et al., 2023).

However, challenges in implementing sustainable policies are still the main focus. Limited resources and lack of coordination between government agencies are the main obstacles to supporting the sustainability of MSMEs amidst changes in urban infrastructure. This emphasizes the importance of improvements in management systems and resource allocation and increasing collaboration between institutions to create an environment that supports the growth and sustainability of MSMEs. Overall, this discussion highlights the need for a holistic approach to designing urban policies that considers the impact on MSMEs (Wright et al., 2007). Closer collaboration between regional governments, government institutions, and local stakeholders is also needed to create a conducive environment for MSMEs' future growth and sustainability. Thus, this research contributes significantly to efforts to understand and overcome the challenges faced by MSMEs in facing changes in urban infrastructure.

Conclusion

This research provides in-depth insight into the impact of digging roadside ditches by the Medan City Government on Micro, Small, and Medium Enterprises (MSMEs) in the area. It was found that this practice significantly impacted the operations and sustainability of MSMEs, especially in terms of accessibility disruption, material loss, and damage to business infrastructure. Although MSMEs face significant challenges, this research also shows that MSMEs have taken adaptation and mitigation steps to overcome the negative impacts of changes in urban infrastructure. Product diversification, increased connectivity, and support from sustainability-oriented public policies have helped MSMEs to remain competitive and develop amidst environmental changes.

However, challenges in sustainable policy implementation remain the main focus. Limited resources and ineffective coordination between government agencies are the main obstacles that need to be overcome to support the sustainability of MSMEs amidst changes in urban infrastructure.

Overall, this research emphasizes the need for a holistic approach to designing urban policies that considers the impact on MSMEs. Closer collaboration between regional governments, government institutions, and local stakeholders is critical to creating a conducive environment for MSMEs' future growth and sustainability.

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