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LINKING INCLUSIVE ECONOMIC TRANSFORMATION TO MSME PERFORMANCE IN THE TRANS-SUMATRA TOLL ROAD CORRIDOR

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Abstract

This study examines the relationship between inclusive economic transformation, competitiveness, and MSME performance along the Trans-Sumatra Toll Road corridor. A total of 394 MSME actors were selected using purposive sampling, and data were collected through Likert-scale questionnaires and analyzed using Partial Least Squares–Structural Equation Modeling. The findings show that inclusive economic transformation has a significant effect on MSME performance, with a t-value of 18.799 and a p-value of 0.000 ($p < 0.05$). Inclusive economic transformation also significantly influences competitiveness, with a t-value of 22.279 and a p-value of 0.000 ($p < 0.05$). Competitiveness is proven to be a strong determinant of MSME performance, with a t-value of 26.506 and a p-value of 0.000 ($p < 0.05$). Inclusive economic transformation also enhances MSME performance through the mediating role of competitiveness, with a t-value of 18.799 and a p-value of 0.000 ($p < 0.05$). These results confirm that inclusive economic transformation and competitiveness are two mutually reinforcing elements in shaping MSME performance. Theoretically, this study strengthens the concept of inclusive growth, emphasizing the role of access, economic opportunity, and competitive dynamics in improving business performance. Practically, the findings highlight the need for policies that focus on enhancing competitiveness, strengthening business capacity, and expanding market access so that MSMEs can fully benefit from increasingly open economic opportunities.

Keywords: *Inclusive Economic Transformation, Competitiveness, Msmes Performance*

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INTRODUCTION

The development of large-scale transportation infrastructure, such as the Trans-Sumatra Toll Road (JTTS), not only aims to facilitate the flow of goods and services but is also expected to create a multiplier effect on the regional economy. The presence of the JTTS opens new opportunities for businesses, particularly Micro, Small, and Medium Enterprises (MSMEs), to expand market access, improve product distribution, and strengthen competitiveness through interregional connectivity. As the backbone of the Indonesian economy, MSMEs contribute more than 60% to the national Gross Domestic Product (GDP) and absorb the majority of the workforce (Ministry of Cooperatives and SMEs of the Republic of Indonesia, 2021). However, this significant contribution still faces fundamental challenges related to limited market access, low digital literacy, and the suboptimal utilization of opportunities from strategic infrastructure development.

Within the framework of economic development, inclusive economic transformation is a crucial strategy to ensure that the benefits of infrastructure development are not solely concentrated in large business groups but are also enjoyed by MSMEs in a fair and sustainable manner (World Bank, 2020; Rauniyar & Kanbur, 2010). The principle of inclusivity emphasizes equitable access to resources, technology, and markets, enabling MSMEs to play an active role in modern value chains. This aligns with the view of Todaro and Smith (2015) that successful development is determined not only by economic growth but also by the extent to which development outcomes are able to reduce socio-economic inequality. This means that toll road development should not stop at the physical aspect alone, but must be linked to strategies to strengthen the capacity of MSMEs to optimize emerging economic opportunities.

The construction of the Trans-Sumatra Toll Road, as part of the National Strategic Project, has been a key driver of accelerated regional connectivity and economic integration. Transportation infrastructure has been proven to reduce logistics costs, increase the mobility of goods and services, and open new market opportunities for businesses, including MSMEs (Aschauer, 1989; Banerjee et al., 2020; Safitri et al., 2024). Various national studies have shown that MSMEs in toll road corridors gain better access to raw materials, consumers, and distribution networks (Nugroho & Purwanto, 2021; Dewi et al., 2023). However, improvements in physical infrastructure do not automatically result in improved MSME performance. Inequality in internal capabilities, low adoption of digital technology, and limited integration into modern value chains prevent some MSMEs from capitalizing on emerging economic opportunities (Fitriana & Hidayat, 2021; Sihombing & Sihombing, 2022; Fitriani, 2021). Thus, infrastructure development without inclusive economic transformation risks only benefiting large businesses and leaving MSMEs as spectators in the flow of economic change (Donaldson, 2018; Stiglitz, 2018).

Inclusive economic transformation emphasizes expanding access to resources, opportunities, and development benefits for all business actors (Klasen, 2010; Rauniyar & Kanbur, 2010; World Bank, 2020). In the context of MSMEs, this transformation includes improving digital literacy, access to financing, strengthening managerial capacity, and the ability to innovate and integrate into modern value chains (Gereffi, 2018; Giuliani et al., 2005; Omrani et al., 2024). The Resource-Based View (RBV) perspective emphasizes that MSME performance is largely determined by valuable, rare, and difficult-to-imitate internal capacities, such as innovation, product quality, and adaptability (Barney, 1991; Porter, 2008; Zulkifli & Hasan, 2020). Increasing competitiveness is a crucial mechanism for translating new access and opportunities resulting from infrastructure development into improved business performance (Taufik & Hadi, 2021; Utami, 2020; Farida & Nuryakin, 2021). Therefore, a study of how Inclusive Economic Transformation strengthens competitiveness and ultimately improves the performance of MSMEs in the Trans-Sumatra Toll Road corridor is highly relevant.

Various previous studies have confirmed that transportation infrastructure can boost economic growth and expand market access (Banerjee et al., 2020; Dewi et al., 2023). However, very little research has specifically examined how the construction of the Trans-Sumatra Toll Road interacts with non-physical factors such as inclusive economic transformation, innovation capabilities, digitalization, and MSME competitiveness. Most studies on MSMEs focus on the issues of competitiveness, innovation, market access, or value chain integration separately (Farida & Nuryakin, 2021; Fitriana &

Hidayat, 2021; Harini et al., 2023), thus failing to provide a comprehensive understanding of how inclusive economic transformation plays a role in boosting MSME performance by strengthening competitiveness. Furthermore, there is still limited research that uses a simultaneous perspective of infrastructure, economic inclusiveness, and internal capabilities based on the RBV in the context of a strategic economic corridor like the Trans-Sumatra. This situation indicates an important research gap that needs to be filled so that MSME strengthening policies can be formulated more effectively and evidence-based.

This research is novel in integrating the impact of the Trans-Sumatra Toll Road development as physical infrastructure with non-physical aspects of economic transformation in one comprehensive empirical model, something that has not been widely studied in previous studies. Furthermore, this research specifically examines the role of competitiveness as a mediating variable that explains how inclusive economic transformation can improve MSME performance, providing a new perspective that has not been explored in previous research. Another novelty lies in the use of a theoretical framework that combines the Resource-Based View approach with inclusive growth theory to explain the synergy between internal capabilities and external opportunities that arise from regional connectivity. The research focus on MSMEs located directly in the economic corridor of the Trans-Sumatra Toll Road also provides a unique and strategic empirical context, thus providing new understanding of how national infrastructure plays a role in shaping MSME transformation and competitiveness.

Based on the above explanation, this study aims to analyze how Inclusive Economic Transformation affects MSME performance by strengthening competitiveness as a core mechanism that translates infrastructure development opportunities into improved business performance. By selecting the context of the Trans-Sumatra Toll Road, this study provides an operational overview of what steps the government needs to take to ensure that MSMEs are truly integrated into the new economic ecosystem that is being created, such as strengthening innovation capabilities, improving product quality, accelerating digitalization, and facilitating access to a wider market network. These findings are expected to form the basis for formulating more targeted policies in maximizing the benefits of infrastructure development, so that MSMEs are not only passive recipients, but strategic actors in regional economic growth.

Literature Review and Hypothesis Development

The concept of an inclusive economy

An inclusive economy is a development approach that emphasizes the equitable distribution of the benefits of economic growth so that they can be felt by all levels of society, including groups that have been marginalized from the mainstream of development. Rauniyar and Kanbur (2010) state that economic development can only be considered inclusive if it can reduce inequality, increase access to business opportunities, and ensure the active participation of all parties in the growth process. In the context of MSMEs, an inclusive economy emphasizes the importance of small business involvement in the modern economic value chain by increasing market access, capital, technology, and human resource capacity.

Furthermore, Klasen (2010) emphasized that an inclusive economy is not only about high growth, but also about sustainability and equity. This means that infrastructure development, such as the Trans-Sumatra toll road, should not be solely assessed in terms of its physical connectivity output, but also by the extent to which it creates broader and fairer access for MSMEs to participate in trade and investment flows. Therefore, the concept of an inclusive economy serves as an important foundation for understanding how infrastructure can serve as a catalyst for economic transformation that not only benefits large sectors but also strengthens the competitiveness of MSMEs as the foundation of the people's economy.

Competitiveness

The competitiveness of MSMEs can be explained through the Resource-Based View (RBV) perspective, which emphasizes that sustainable competitive advantage depends on a company's ability to manage valuable, rare, difficult to imitate, and non-substitutable resources (Barney, 1991). In the context of MSMEs, these resources can include local knowledge, social networks, product quality, innovation, production flexibility, and the ability to adapt to consumer preferences. MSMEs with high competitiveness will be better able to exploit new market opportunities that arise from increased infrastructure connectivity.

In this study, competitiveness is positioned as a mediating variable that bridges the influence of Inclusive Economic Transformation on MSME performance. This means that inclusive

transformation encourages increased internal and external capabilities of MSMEs, which in turn contributes to improved performance. Therefore, strengthening competitiveness is not only an end in itself but also part of the mechanism explaining how inclusive policies work at the business level.

Competitiveness Theory

Competitiveness theory explains that a business's competitive advantage is determined by its ability to create higher value than competitors through cost efficiency, product differentiation, and a focused strategy on specific markets (Porter, 1990). MSMEs with strong competitiveness are able to capitalize on external opportunities, expand market networks, and maintain business sustainability amidst global competition. Competitive advantage is reflected not only in price but also in product quality, innovation, and services that are consistent with consumer needs. In the context of toll road construction, competitiveness theory is relevant because transportation infrastructure opens wider access to markets. MSMEs that are able to adapt to new market dynamics will benefit from the increased flow of goods and services. Competitiveness built through innovation and efficiency can strengthen the position of MSMEs in the national value chain, thereby contributing to equitable economic growth (Tambunan, 2019).

MSME Performance

Organizational performance theory emphasizes that performance is measured not only from a financial perspective, but also from the perspective of internal processes, learning, and customer satisfaction (Kaplan & Norton, 1996). This concept provides a framework for assessing the success of organizations or small businesses in managing resources and producing outputs that meet targets. Optimal performance is achieved when organizations are able to balance revenue growth, increased productivity, and continuous innovation. In the context of MSMEs, performance is a benchmark for the extent to which business actors can adapt to market changes influenced by infrastructure development. The Trans Sumatra toll road accelerates the mobility of goods and services, thus requiring MSMEs to increase productivity and service reliability. Good performance will be reflected in increased sales volume, customer satisfaction, and business sustainability that align with new economic opportunities created by regional connectivity (Yusuf & Karim, 2019).

Hypothesis Development

Inclusive economic transformation plays a role in expanding MSMEs' access to market opportunities, technology, and the resources needed to fully participate in the development process (Klasen, 2010; Stiglitz, 2018). A more inclusive economic environment creates conditions that enable MSMEs to increase productivity, expand their business reach, and strengthen their competitive structure. Empirical findings indicate that economic inclusion can improve the adaptive capacity and performance of small businesses through access to infrastructure, information, and policy support (Zulkhibri, 2020). Thus, inclusive economic transformation is predicted to have a positive impact on MSME performance.

H1: Inclusive economic transformation has a positive effect on MSME performance.

From a Resource-Based View perspective, competitiveness results from the accumulation of internal capabilities such as innovation, product quality, operational efficiency, and technological adaptation (Barney, 1991). Inclusive economic transformation provides external support in the form of access, opportunities, and facilities that enable MSMEs to develop these competencies. Previous research has shown that an inclusive economic environment strengthens innovation processes and product quality improvements, ultimately boosting MSME competitiveness (Kaplinsky, 2020; Porter, 1990). Thus, inclusive economic transformation can strengthen MSME competitiveness.

H2: Inclusive economic transformation has a positive effect on the competitiveness of MSMEs.

Competitiveness is a key determinant of business performance because strong internal capabilities enable MSMEs to respond to market demand, generate innovation, and increase efficiency, thus directly impacting business performance (Porter, 1990; Taufik & Hadi, 2021). Various studies confirm that MSMEs with high competitiveness have a greater chance of surviving and growing in an increasingly competitive market environment (Humphrey & Schmitz, 2002). Therefore, competitiveness is expected to have a positive effect on MSME performance.

H3: Competitiveness has a positive effect on MSME performance.

Inclusive economic transformation creates structural opportunities for MSMEs, but these opportunities can only be translated into improved performance if business actors possess adequate

competitiveness. Internal capabilities such as innovation, adaptability, and product quality serve as mechanisms that strengthen the impact of inclusive transformation on business performance (Barney, 1991; Kaplinsky, 2020). Therefore, competitiveness is seen as a mediating pathway explaining how inclusive transformation impacts MSME performance improvement.

H4: Competitiveness mediates the influence of inclusive economic transformation on MSME performance.

METHODS

This study uses a quantitative approach with an explanatory design to examine the causal relationship between variables, namely inclusive economic transformation, product competitiveness, and MSME performance. The research location focused on MSMEs operating in the Trans Sumatra Toll Road construction area in West Sumatra Province, considering that this infrastructure project is believed to play a crucial role in improving market access and small business competitiveness (Donaldson, 2018).

The study population comprised all MSMEs affected by the toll road construction, with a sample of 394 respondents determined using purposive sampling based on the following criteria: having been operating for at least three years, having direct involvement in product distribution or marketing, and being impacted by the toll road construction. Data were collected using a 5-point Likert-scale questionnaire developed from previous research indicators on inclusive economic transformation (Zulkhibri, 2020), product competitiveness (Porter, 1990), and MSME performance (Widiastuti & Suwarno, 2021).

Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) because it is suitable for complex models with latent variables and medium sample sizes (Hair et al., 2019). Instrument validity and reliability tests included outer loading, average variance extracted (AVE), composite reliability (CR), and Cronbach's alpha. Hypothesis testing was conducted using bootstrapping to obtain t-statistics and p-values as a basis for decision-making.

RESULTS AND DISCUSSION

The growth characteristics of MSMEs involved in the construction of the Trans-Sumatra Toll Road show positive dynamics, particularly in the trade, food and beverage, and transportation services sectors supporting the project. Most MSMEs have developed by capitalizing on the increased mobility of goods and services facilitated by the toll road infrastructure. This growth is reflected in increased production capacity, expanded distribution networks, and increased sales turnover over the past two to three years. This fact confirms that toll road infrastructure development not only boosts interregional connectivity but also creates a multiplier effect that strengthens the local business ecosystem around the toll road.

Respondents in this study consisted of MSMEs located along the Trans-Sumatra Toll Road construction corridor, particularly in West Sumatra Province. The majority of respondents operate in the trade sector (43%), followed by the food and beverage sector (32%), and the services sector (25%). Demographically, most business owners are in the productive age range of 31–45 years (58%), with education levels dominated by high school graduates (46%) and college graduates (38%). This indicates that respondents have a relatively strong capacity to adapt to market changes, although they still face limitations in terms of digital literacy and access to capital.

The majority of business owners are self-employed, accounting for 50.5%. Family ownership accounts for 33.2% of businesses, while partnerships account for 16.2%. This data demonstrates that most businesses prefer to operate independently, while family involvement and partnerships remain crucial in supporting business activities. The majority of businesses in this study fall under the category of fostered MSMEs, accounting for 37.6%. Cooperatives rank second, accounting for 29.4%, followed by trading companies (UD) at 23.6%. Meanwhile, businesses with PT/CV legal entities account for only 9.4%. This demonstrates that support for MSMEs remains dominant, despite the presence of cooperatives and trading companies that continue to play a significant role in the regional economy.

Table 1. Business Model and Monthly Turnover

Venture capital (in Rupiah)	Sales Turnover per Month					
	±500 Million	200 - 300 Million	300 - 400 Million	200 - 300 Million	100 - 200 Million	Less than 100

						million
±300 Million	8	1	1	1	0	1
200 Million - 300 Million	7	15	4	1	3	0
100 Million - 200 Million	16	11	41	10	3	0
50 Million - 100 Million	10	8	27	93	19	4
Less than 50 Million	13	10	9	22	56	0
Total	54	45	82	127	81	5

Sales turnover data shows that the majority of respondents are in the range of IDR 50 million–IDR 100 million per month with a percentage of 40.9% (161 respondents). The second position is occupied by the group with a turnover of less than IDR 50 million per month at 27.9% (110 respondents), which reflects the still large number of small-scale business actors. A total of 20.6% of respondents have a turnover of IDR 100 million–IDR 200 million per month (81 respondents), while 11.4% of respondents are in the range of IDR 200 million–IDR 300 million per month (45 respondents). Only a small number of business actors are able to penetrate a turnover above IDR 300 million per month, namely 54 respondents or 13.7%. This distribution shows that the majority of MSME actors are at the lower to middle level with moderate capital turnover capacity, while only a handful have managed to achieve a high turnover scale.

Furthermore, the results of the validity and reliability test analysis and the feasibility of the equality construct model can be seen in the following table.

Table 2. Model Construction Test Results

Variables	**Indicator**	**Outer Loadings**	**Outer Weights**
MSME Performance	Business Growth	0.907	0.367
	Business Reputation	0.810	0.351
	Financial Performance	0.921	0.415
Inclusive economic transformation	Economic Equality	0.918	0.487
	Job Opportunities	0.789	0.368
	MSME Empowerment	0.683	0.385
Competitiveness	Product Innovation	0.880	0.356
	Product Quality	0.929	0.372
	Sales Volume	0.851	0.402

Based on the results of the PLS analysis, all indicators used in the study showed good reflective validity and significant contributions to their respective latent constructs. In the MSME Performance construct, the Financial Performance indicator has the highest outer loading of 0.921 and an outer weight of 0.415, indicating that this indicator most strongly reflects and shapes MSME Performance. The Business Growth and Business Reputation indicators also showed high loadings of 0.907 and 0.810, respectively, with moderate contributions, indicating good validity. For Inclusive Economic Transformation, the Economic Equality indicator was the most dominant with a loading of 0.918 and a weight of 0.487, while Job Opportunities and MSME Empowerment had fairly high validity with loadings of 0.789 and 0.683, respectively, and moderate contributions. In the Competitiveness construct, the Product Quality indicator has the highest loading of 0.929 and a weight of 0.372, followed by Product Innovation and Sales Volume with loadings of 0.880 and 0.851, respectively, indicating that these three indicators are able to reflect and shape Competitiveness well. Overall, all indicators show outer loadings above 0.60 and varying outer weights, indicating that these indicators are valid and play an important role in shaping their respective constructs.

This can be stated in the following scheme

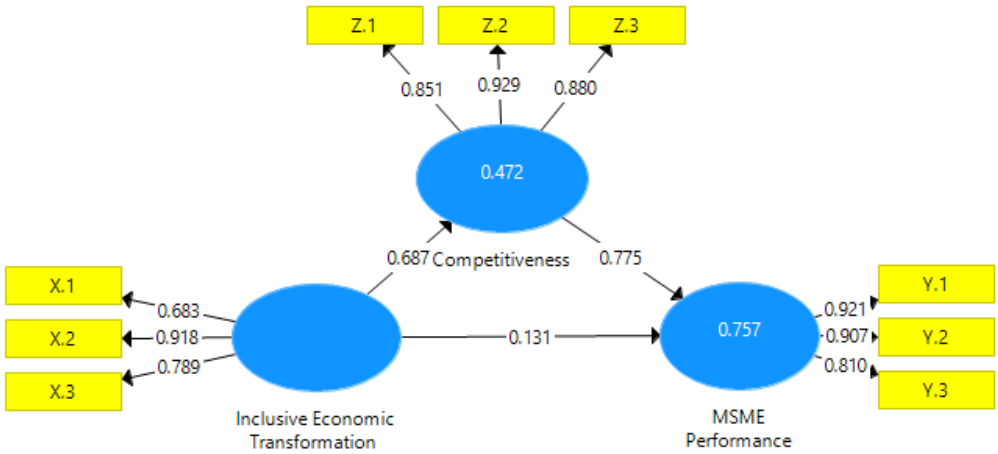

Figure 1. Model Construction

This Structural Equation Model tests three latent variables, namely Inclusive Economic Transformation, Competitiveness, and MSME Performance, each of which is measured through indicators with strong outer loadings, such as X.2 of 0.918, Z.2 of 0.929, and Y.1 of 0.921. In the structural relationship, Inclusive Economic Transformation shows a positive and significant influence on Competitiveness with a coefficient of 0.687. Furthermore, Competitiveness has a very strong positive influence on MSME Performance with a coefficient of 0.775. Meanwhile, the direct path from Inclusive Economic Transformation to MSME Performance actually shows a small negative coefficient, namely -0.131, which indicates that the influence of Inclusive Economic Transformation on MSME Performance depends substantially on the mediating role of Competitiveness.

Table 3. Validity and reliability test

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	Discriminant Validity
Competitiveness	0.865	0.866	0.917	0.788	0.887
Inclusive Economic Transformation	0.714	0.744	0.842	0.644	0.802
MSME Performance	0.854	0.863	0.912	0.776	0.881

The results of the validity and reliability tests indicate that all variables in the model have met the criteria for good performance. In terms of internal reliability, the Cronbach's Alpha values for the three variables are above the minimum limit of 0.70, namely 0.865 for Competitiveness, 0.714 for Inclusive Economic Transformation, and 0.854 for MSME Performance. The rho_A and Composite Reliability values are also consistently above 0.70, with Competitiveness reaching 0.866 and 0.917, Inclusive Economic Transformation at 0.744 and 0.842, and MSME Performance at 0.863 and 0.912. These findings confirm that all constructs have a strong level of internal consistency and reliability.

From the convergent validity aspect, each variable has an Average Variance Extracted (AVE) value that exceeds the minimum standard of 0.50, namely 0.788 for Competitiveness, 0.644 for Inclusive Economic Transformation, and 0.776 for MSME Performance. These values indicate that more than 64% of the indicator variance can be explained by their respective constructs. In addition, discriminant validity is also met, with discriminant validity values for all variables above 0.80, indicating that each construct has the ability to clearly differentiate itself from other constructs. Overall, these results ensure that all variables in the model have valid and reliable measurement qualities for use in structural analysis.

Table 4. Structural model test

	R Square	R Square Adjusted	f Square

Competitiveness	0.472	0.471	1,305
Inclusive Economic Transformation			0.895
MSME Performance	0.757	0.756	

The results of the structural model evaluation show that the Competitiveness variable has an R Square of 0.472 and an Adjusted R Square of 0.471, so that approximately 47.2% of its variability can be explained by Inclusive Economic Transformation, with an f Square value of 1.305 indicating a very strong effect. The Inclusive Economic Transformation variable does not have an R Square value because it acts as an exogenous variable, but an f Square value of 0.895 indicates a large contribution to the influence of other variables in the model. Meanwhile, the MSME Performance variable has an R Square of 0.757 and an Adjusted R Square of 0.756, which means that 75.7% of its variation can be explained by Competitiveness and Inclusive Economic Transformation, indicating high predictive power in the PLS-SEM model. The f^2 value is used to assess the individual influence of each exogenous variable by looking at the change in the R^2 value when the variable is removed from the model, so that it can show the relative effect size of each variable.

Furthermore, model feasibility testing includes evaluating the measurement model (outer model) to assess the construct's validity and reliability, as well as evaluating the structural model (inner model) to determine the strength of the relationships between latent variables and their significance levels. This can be explained as follows.

Table 5. Model Feasibility Test Results

	Saturated Model	**Estimated Model**	**Value**
SRMR	0.101	0.101	
d_ULS	0.463	0.463	
d_G	0.288	0.288	
Chi-Square	718,683	718,683	
NFI	0.742	0.742	
rms Theta			0.357

The model fit test results show that the SRMR value for the Saturated Model and Estimated Model is 0.101. This value is slightly above the ideal threshold of 0.08, but is still acceptable for a predictive and exploratory PLS-SEM model. The d_ULS and d_G values, of 0.463 and 0.288, respectively, indicate the level of difference between the empirical covariance matrix and the model that is still within the tolerance range, thus not indicating a significant deviation. In addition, the Chi-Square value of 718.683 describes a measure of model misfit, but in the context of PLS-SEM, this measure is not a primary indicator because PLS does not prioritize covariance reproduction like SEM covariance. The Normed Fit Index (NFI) value of 0.742 indicates a moderate level of fit, indicating that the model has the ability to improve the fit compared to the base model, although it has not yet reached the very good category (generally >0.90). Meanwhile, the rms Theta value of 0.357 is below the 0.40 threshold, indicating that the measurement model has low residual error and meets the feasibility criteria for a reflective model. Overall, although some indicators fall into the moderate fit category, the model is generally considered adequate and can be used for further analysis within the PLS-SEM framework.

Furthermore, the results of the model feasibility test are presented as follows.

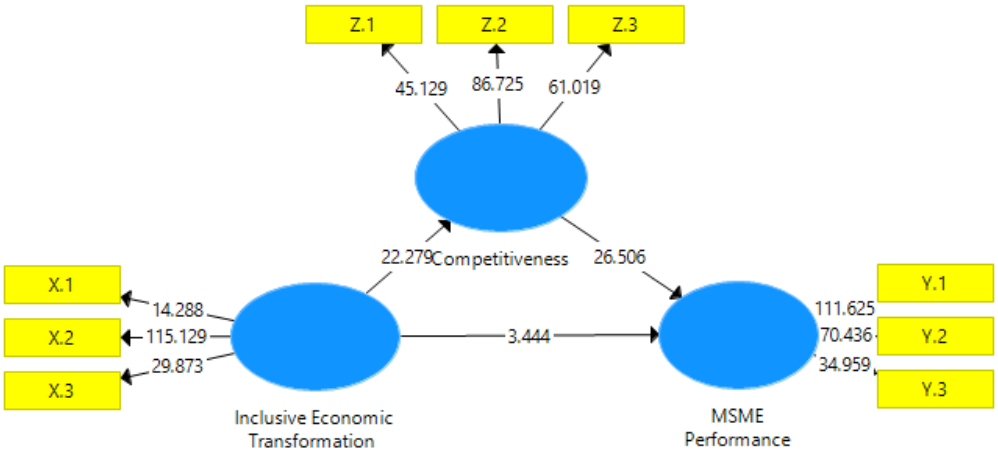

Figure 2. Results of the structural equation model test

The diagram (Figure 2) represents the results of hypothesis testing, which serves as the basis for understanding the factors influencing MSME performance and strategic supporting elements such as product competitiveness or inclusive economic transformation. This is also presented in the following table.

Table 6. Hypothesis test results

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
X --> Y	0.532	0.533	0.028	18,799	0,000
X --> Z	0.687	0.687	0.031	22,279	0,000
Z --> Y	0.775	0.775	0.029	26,506	0,000
X --> Z --> Y	0.532	0.533	0.028	18,799	0,000

Based on the results of the hypothesis testing analysis as shown in the table, it can be explained as follows.

1.Inclusive Economic Transformation → MSME Performance

The direct effect of X on Y shows a coefficient of 0.532 with a T statistic of 18.799 and a p-value of 0.000 ($p < 0.05$), so this result indicates that Inclusive Economic Transformation has a significant effect on MSME Performance. Therefore, the hypothesis stating that there is an effect of Inclusive Economic Transformation on MSME Performance can be accepted. Inclusive economic transformation encourages comprehensive participation, equal access to resources, and opportunities for MSMEs to develop in a competitive ecosystem. Policy support and innovation in financing, technology, and markets are key factors in strengthening the competitiveness of MSMEs. This concept is in line with the World Bank's (2020) view which emphasizes the importance of inclusivity to ensure that all community groups, including micro, small, and medium enterprises, benefit from development. In the context of the Trans Sumatra Toll Road development, the existence of this infrastructure is a strategic instrument to expand the market, reduce distribution costs, and increase the integration of MSMEs into a broader supply chain.

Inclusive economic transformation also strengthens the competitiveness of MSMEs through access to digital technology, training, and relevant business networks. Beck and Demirguc-Kunt (2006) emphasized that MSMEs within an inclusive economic framework play a crucial role in creating economic stability, expanding employment opportunities, and reducing social disparities. Tambunan (2019) added that inclusive development not only opens access but also strengthens productive capacity so that MSMEs can compete sustainably. The construction of the Trans-Sumatra Toll Road reinforces this finding because interregional connectivity shortens distribution times, expands the market base, and increases opportunities for business collaboration. Therefore, inclusive economic transformation is not merely a policy strategy, but a real necessity to ensure the sustainability of MSMEs while ensuring the benefits of infrastructure development are felt equally.

The importance of inclusive economic transformation becomes increasingly apparent when MSMEs are able to leverage increased access, connectivity, and policy support as capital to increase business productivity. An inclusive economic ecosystem creates a foundation that encourages innovation, product diversification,

and increased operational efficiency for MSMEs. Porter (2008) explains that competitiveness is determined not only by a company's internal strengths but also by the external environment that provides adequate infrastructure, technology, and supporting networks. Todaro and Smith (2020) emphasize that inclusive development must ensure that small businesses have equal access to economic opportunities so that the benefits of development can be distributed equitably. The World Bank (2020) reinforces this view by stating that inclusive development is a key element for MSMEs to adapt to economic changes and engage in broader value chains. Findings by Beck and Demirguc-Kunt (2006), Tambunan (2019), and Kakwani and Pernia (2021) also demonstrate that inclusive economic transformation expands opportunities, increases productive capacity, and strengthens MSME resilience. Thus, inclusive economic transformation is not merely a policy approach, but a strategic foundation that enables MSMEs to grow stronger within an integrated economic ecosystem, including in areas impacted by the construction of the Trans Sumatra Toll Road.

2.Inclusive Economic Transformation → Competitiveness

The effect of X on Z has a coefficient of 0.687 with a T statistic of 22.279 and a p-value of 0.000 ($p < 0.05$), which means that Inclusive Economic Transformation has a significant effect on competitiveness. Therefore, the hypothesis stating that there is an effect of Inclusive Economic Transformation on competitiveness is accepted. Inclusive economic transformation has been proven to have a significant effect on increasing competitiveness. This influence mechanism occurs because inclusive transformation opens wider economic access for business actors, especially MSMEs. More equitable access to productive resources encourages increased business capacity and facilitates the integration of local economic actors into larger value chains. Todaro and Smith (2020) emphasize that inclusive development strengthens the local economic structure through equal opportunities which are then reflected in increased competitiveness.

Major infrastructure developments, such as the Trans-Sumatra Toll Road, are a concrete example of how inclusive economic transformation can create a supportive environment for increased competitiveness. Integrated infrastructure expands the mobility of goods and services, lowers logistics costs, and opens up access to previously difficult-to-reach markets. Porter (2008) explains that a region's competitiveness is greatly influenced by the quality of its infrastructure, which can increase efficiency and lower economic barriers. The impact of this toll road development aligns with research findings, as MSMEs in Sumatra are beginning to experience market expansion and increased competitiveness due to increased interregional connectivity.

The increased competitiveness resulting from inclusive economic transformation aligns with the findings of Kakwani and Pernia (2021), who demonstrated that development policies involving all levels of society create competitive advantages for businesses. Increasing accessibility through strategic infrastructure creates multiplier effects, such as the growth of new economic centers, accelerated product distribution, and increased innovation in local businesses. The hypothesis that Inclusive Economic Transformation influences competitiveness is plausible, given that infrastructure development, such as the Trans-Sumatra Toll Road, has strengthened the competitiveness of MSMEs in the region.

3.Competitiveness → MSME Performance

The effect of Z on Y shows a coefficient of 0.775 with a T statistic of 26.506 and a p-value of 0.000 ($p < 0.05$), so this result indicates that competitiveness has a very strong and significant effect on MSME Performance. Therefore, the hypothesis stating that there is an effect of competitiveness on MSME Performance can be accepted. Competitiveness is proven to have a significant effect on MSME performance. Better performance generally occurs when MSMEs have strong competitive capabilities, both in terms of product quality, innovation, and the ability to access markets. Porter (2008) explains that competitiveness is the main foundation for improving business performance because it determines how effectively a business can meet market needs and overcome competitive pressures. Increasing competitiveness allows MSMEs to survive amidst economic dynamics while improving business output sustainably.

The significant increase in the competitiveness of MSMEs in Indonesia has been seen following the strengthening of economic connectivity, one of which is through the construction of the Trans-Sumatra Toll Road. This infrastructure accelerates the flow of goods distribution, opens new marketing channels, and reduces logistics costs, thereby increasing opportunities for MSMEs to

expand their markets and increase productivity. A study by Todaro and Smith (2020) confirmed that the quality of transportation infrastructure directly impacts business performance because it impacts operational efficiency and market accessibility. This increased connectivity makes MSMEs more competitive in meeting consumer demand across regions.

Increased competitiveness also strengthens the position of MSMEs in regional value chains. This strengthening occurs because competitive MSMEs are better able to produce high-value-added products, improve their business reputation, and attract more customers. Kakwani and Pernia (2021) stated that strong competitiveness plays a key role in improving economic performance in the small business sector because it encourages innovation and accelerates business growth. The hypothesis that competitiveness influences MSME performance is acceptable, as increased competitiveness has been shown to be a determining factor in driving MSME performance in various development contexts, including areas directly impacted by strategic infrastructure such as the Trans-Sumatra Toll Road.

4.Inclusive Economic Transformation → Competitiveness → MSME Performance

The indirect effect of X on Y through Z produces a coefficient value of 0.532 with a T statistic of 18.799 and a p-value of 0.000 ($p < 0.05$), indicating that competitiveness significantly mediates the relationship between Inclusive Economic Transformation and MSME Performance. Thus, the hypothesis stating that there is an influence of Inclusive Economic Transformation on MSME Performance through competitiveness can be accepted. The competitiveness of MSMEs serves as an important bridge connecting inclusive policies with improved business performance, while also demonstrating the strategic role of MSMEs in optimizing their adaptive capacity in a dynamic market. This finding is in line with the Resource-Based View (RBV) framework which emphasizes internal competitive advantage as the main determinant of sustainable performance (Barney, 1991).

Inclusive economic transformation opens up broader opportunities for MSMEs to obtain capital, resources, and market access. This access strengthens MSME resilience in the face of competitive pressures while increasing business efficiency. The presence of the Trans-Sumatra Toll Road accelerates product distribution, lowers logistics costs, and expands market reach, thus proving economic inclusiveness a crucial factor in improving business performance. This condition aligns with Porter's (1990; 2008) view that competitiveness based on competitive advantage is the main driver of performance improvement, especially when infrastructure supports regional connectivity. A concrete example is seen in the culinary and craft MSMEs along the Trans-Sumatra Toll Road corridor, such as banana chip producers in Padang and Payakumbuh and songket artisans in Bukittinggi. Before the toll road, distribution of their products was limited due to high shipping costs and time. The presence of the toll road allows for more efficient distribution to large markets like Jakarta and Medan, resulting in increased turnover, new job creation, and more inclusive regional economic growth. This condition emphasizes that inclusive economic transformation mediated by competitiveness can provide a real contribution to the performance of MSMEs, especially if supported by public policies and cross-sector collaboration (Tambunan, 2019).

The strengthening impact of inclusive economic transformation on MSME performance is increasingly evident when examining how the policy environment and infrastructure can create a comprehensive supporting ecosystem. Research by Beck and Demirguc-Kunt (2006) shows that more equitable access to finance and economic opportunities increases the capacity of MSMEs to grow and innovate. Kakwani and Pernia (2021) emphasize that inclusive development not only facilitates the participation of small businesses in economic activities but also strengthens competitiveness through increased productivity and efficiency. Todaro and Smith (2020) add that development that prioritizes equitable distribution of economic benefits directly contributes to improved community welfare and business growth. Empirical evidence along the Trans-Sumatra Toll Road corridor shows that when market access, infrastructure, and competitiveness move simultaneously, MSMEs experience not only increased turnover but also enhanced reputation and product innovation. This confirms that inclusive economic transformation provides a strong foundation for MSMEs to develop sustainably in an increasingly competitive modern economic structure.

CONCLUSIONS

This study demonstrates that inclusive economic transformation plays a crucial role in

improving the competitiveness and performance of MSMEs in West Sumatra. A more open economic environment, more equitable access to business opportunities, and infrastructure support serve as the foundation for strengthening MSMEs' capacity to innovate, improve product quality, and expand markets. Competitiveness has proven to be the most crucial factor in driving MSME performance, while also strengthening the influence of inclusive transformation on business performance. These findings emphasize that MSME success is not only supported by economic conditions that provide wider space for participation, but also by the ability of business actors to capitalize on these opportunities by increasing competitiveness. Overall, the study's findings underscore that strengthening competitiveness and creating an inclusive economic ecosystem must go hand in hand for MSMEs to grow sustainably in an increasingly complex competitive environment.

The implications of this research confirm that improving MSME performance requires a combination of policies that promote an inclusive economy and strategies to strengthen competitiveness. Inclusive economic transformation needs to be directed at expanding market access, improving the quality of distribution infrastructure, and providing equitable support for small businesses. The finding that competitiveness has a strong influence on MSME performance suggests the need for interventions focused on innovation, increasing efficiency, strengthening managerial capacity, and utilizing digital technology. Local governments, supporting institutions, and businesses need to build a collaborative ecosystem that ensures MSMEs are able to capitalize on opportunities created by infrastructure development, particularly economic corridors such as the Trans-Sumatra Toll Road. This approach will help MSMEs improve product quality, expand market reach, and strengthen business resilience, thereby optimizing and equitably contributing to regional economic growth.

Research limitations

This study's limitations lie in the scope of the variables used, which only cover inclusive economic transformation, competitiveness, and MSME performance. Therefore, it is unable to capture the influence of other factors such as innovation, digital literacy, business governance quality, access to financing, or more specific regulatory support for the MSME sector. The study's focus on a single region, namely West Sumatra Province, also limits the generalizability of the findings to other regions with different economic characteristics. Furthermore, the use of a quantitative research design with cross-sectional data only describes conditions in a single time period, so it cannot explain the dynamics of long-term changes in MSME performance. These limitations require careful interpretation of the results and encourage further research to expand the variables and study areas, and apply longitudinal or mixed-methods approaches to more comprehensively understand the relationship between inclusive economic transformation, competitiveness, and MSME performance.

Further Research Agenda

Future research can be directed at expanding the scope of the study by including variables such as digital literacy, innovation, and managerial capacity of MSMEs to examine how these factors interact with inclusive economic transformation, competitiveness, and MSME performance. A longitudinal approach should also be considered to more accurately observe the dynamics of the influence of inclusive transformation on performance over time. Furthermore, the use of mixed methods will enable researchers to gain a deeper understanding of the experiences of MSME actors and the perspectives of stakeholders, thus making research results more comprehensive and relevant for policy development and practice in the field.

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