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The Role of Triple Bottom Line Accounting in the Sustainability of Local Community-Based MSMEs in East Nusa Tenggara

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Abstract: This study aims to analyze the role of Triple Bottom Line (TBL) Accounting on the sustainability of community-based Micro, Small and Medium Enterprises (MSMEs) in East Nusa Tenggara Province (NTT). Employing a mixed-method approach integrating a quantitative survey of 120 MSME actors and in-depth interviews with 15 key informants, this research examines the extent to which the implementation of the three TBL pillars, profit, people, and planet, can strengthen business sustainability within the context of indigenous communities and local culture in NTT. Quantitative analysis utilized Structural Equation Modeling (SEM) with Partial Least Square (PLS), while qualitative data were analyzed through thematic analysis. Results indicate that the social dimension (people) exerts the most significant influence on SME sustainability with a path coefficient of 0.412 ($p<0.001$), followed by the environmental dimension (planet) at 0.338 ($p<0.05$) and the economic dimension (profit) at 0.289 ($p<0.05$). Qualitative findings reveal that local values such as gotong royong (mutual cooperation) and kekeluargaan (kinship) serve as social capital that reinforces TBL implementation. This research provides practical implications for local governments and financial institutions in designing TBL-based MSME development programs in archipelagic regions.

Keyword:. TBL, MSMEs, Sustainability, Local Community

Abstrak: *Penelitian ini bertujuan untuk menganalisis peran akuntansi Triple Bottom Line (TBL) terhadap keberlanjutan Usaha Mikro, Kecil, dan Menengah (UMKM) berbasis komunitas di Provinsi Nusa Tenggara Timur (NTT). Dengan menggunakan pendekatan metode campuran yang mengintegrasikan survei kuantitatif terhadap 120 pelaku UMKM dan wawancara mendalam dengan 15 informan kunci, penelitian ini mengkaji sejauh mana penerapan tiga pilar TBL yaitu profit (laba), people (sosial/masyarakat), dan planet (lingkungan) dapat memperkuat keberlanjutan usaha dalam konteks masyarakat adat dan budaya lokal di NTT. Analisis kuantitatif menggunakan Structural Equation Modeling (SEM) dengan Partial Least Square (PLS), sedangkan data kualitatif dianalisis melalui analisis tematik. Hasil penelitian menunjukkan bahwa dimensi sosial (people) memberikan pengaruh paling signifikan terhadap keberlanjutan UMKM dengan koefisien jalur sebesar 0,412*

(p<0,001), diikuti oleh dimensi lingkungan (planet) sebesar 0,338 (p<0,05) dan dimensi ekonomi (profit) sebesar 0,289 (p<0,05). Temuan kualitatif mengungkapkan bahwa nilai-nilai lokal seperti gotong royong dan semangat kekeluargaan berperan sebagai modal sosial yang memperkuat penerapan TBL. Penelitian ini memberikan implikasi praktis bagi pemerintah daerah dan lembaga keuangan dalam merancang program pengembangan UMKM berbasis TBL di wilayah kepulauan.

Keywords: *TBL, UMKM, Keberlanjutan, Komunitas Masyarakat*

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are one of the main pillars of regional economies in Indonesia, including East Nusa Tenggara (NTT) Province, as they absorb a large proportion of the local workforce and drive economic activities based on local natural resources, culture, and indigenous knowledge. Unlike MSMEs in urban areas, which tend to be individually managed, most MSMEs in NTT grow and develop within community ties, such as ikat weaving groups, fishing groups, coffee and salt farmer groups, and tourism business groups based in customary villages, which are collectively managed through kinship norms, mutual cooperation, and local systems of trust.

On the other hand, the sustainability of these community-based MSMEs faces serious challenges. A recent study of MSMEs assisted by the Integrated Business Service Center (PLUT) of NTT in Oebobo District shows that business actors' understanding of the Financial Accounting Standards for Micro, Small, and Medium Entities (SAK EMKM) remains low, so financial recording and reporting have not been adequately implemented (Maong, Suninono, & Perseveranda, 2025). This condition is consistent with findings in other developing countries, for example in Sierra Leone, where SME actors tend to understand and implement sustainability practices intuitively based on experience rather than through formal accounting systems (Coulson-Olowu, 2026). The problem is that conventional financial accounting, including SAK EMKM, focuses only on the economic dimension (profit) and has not accommodated the social and environmental dimensions that are distinctive strengths of community-based MSMEs in NTT, such as mutual cooperation, kinship, collective profit sharing, and the preservation of customary natural resources.

The Triple Bottom Line (TBL) Accounting concept introduced by Elkington (1997) offers a more relevant framework because it integrates three dimensions of sustainability simultaneously, namely profit (economic), people (social), and planet (environmental). Several studies show that the application of TBL in small businesses contributes to business growth and sustainability, both in the agro-processing sector in Uganda (Kabbera et al., 2024) and in manufacturing SMEs in India in relation to the achievement of the Sustainable Development Goals/SDGs (Murugesan et al., 2026). In the Indonesian context, research by Angreny, Sumekar, and Prasetyo (2022) found that social capital (bonding, bridging, linking) plays an important role in supporting TBL practices in MSMEs, while Poerwanto et al. (2021) showed that business sustainability management in traditional market communities in Yogyakarta is carried out collectively rather than individually. These findings indicate that the community dimension and social capital are important variables that have not been widely associated explicitly with the TBL Accounting framework, particularly in the context of MSMEs in Eastern Indonesia.

To date, studies specifically combining TBL Accounting, MSME sustainability, and the characteristics of local communities in NTT remain very limited.

Previous studies in geographically similar areas, such as the application of green accounting to MSMEs in Majene Regency, West Sulawesi (Wulandari et al., 2026), and the application of TBL-based environmental accounting to public entities in North Kolaka Regency

(Nurhidayat, Junaid, & Kamase, 2020), show that the application of environmental and social dimensions in accounting practices in Eastern Indonesia is relevant and has the potential to increase business value added. However, none has specifically examined community-based MSMEs in NTT using a mixed-method approach. This gap provides an important basis for this reserach.

Based on this background, this study is formulated to answer the question: To what extent do the economic, social, and environmental dimensions of TBL Accounting contribute to the sustainability of local community-based MSMEs in East Nusa Tenggara? The objectives of this study are: (1) to analyze the effect of the economic dimension of TBL on MSME sustainability; (2) to analyze the effect of the social dimension of TBL on MSME sustainability; and (3) to analyze the effect of the environmental dimension of TBL on the sustainability of local community-based MSMEs in NTT. By using a mixed-method approach, this study is expected to produce a holistic and in-depth understanding.

METHOD

Research Design

This study uses a mixed-method approach with a sequential explanatory design (Creswell & Plano Clark, 2018), in which quantitative data are collected and analyzed in the first stage, followed by the collection and analysis of qualitative data in the second stage to deepen, explain, and confirm the quantitative findings. This design was selected because it is able to answer the question of "how much" TBL Accounting influences MSME sustainability (through quantitative data), while also answering "why and how" the influence occurs within the socio-cultural context of local NTT communities (through qualitative data).

The study was conducted in community-based MSME centers in several areas of NTT Province characterized by collective businesses, such as ikat weaving communities, marine-product processing communities, and coffee/agricultural business communities in Kupang City and surrounding regencies. Locations were selected purposively based on the presence of active business groups/communities receiving assistance from relevant institutions, such as the local Office of Cooperatives and MSMEs.

Population and Sample

The study population comprised all MSMEs registered with the NTT Provincial Office of Cooperatives and SMEs in 2023 that had local community-based characteristics, namely using local raw materials, involving community members as workers, and focusing on marketing distinctive regional products. Based on data from the NTT Office of Cooperatives (2023), there were 847 MSMEs meeting these criteria across 22 regencies/cities.

The sample was determined using purposive sampling with the following criteria: (1) the MSME had been operating for at least two years; (2) it had at least two employees from the local community; and (3) it was willing to participate in the study. Using the Slovin formula at a 95% confidence level ($\alpha = 0.05$), the minimum sample obtained was 89 respondents. To increase precision, the researchers set the sample size at 120 respondents distributed across the five regencies/cities with the highest concentration of MSMEs: Kupang City (30), Ende Regency (25), Sikka Regency (25), East Flores Regency (20), and TTS Regency (20).

Participants (Qualitative Stage)

Participants in the qualitative stage were purposively selected from the quantitative stage and consisted of 10 informants, including: MSME actors with varying TBL Accounting and business sustainability scores (high, medium, and low); business group/community administrators or leaders; customary or community leaders who influence community norms; and MSME facilitators from the Office of Cooperatives and MSMEs. This variation in

participants was intended to obtain in-depth perspectives on social capital and TBL practices occurring in different community contexts.

Research Variables and Instruments

The independent variable in this study is Triple Bottom Line Accounting, operationalized through three sub-variables: (1) Economic Dimension (X_1), measured using 7 indicators covering business profitability, cash flow management, operating cost efficiency, revenue growth, access to capital, product diversification, and financial stability; (2) Social Dimension (X_2), measured using 8 indicators covering local community empowerment, involvement of local workers, equality and inclusion, contribution to community education, occupational health and safety, participation in customary activities, transparency to stakeholders, and strengthening of social capital; (3) Environmental Dimension (X_3), measured using 6 indicators covering sustainable use of local raw materials, business waste management, energy efficiency, preservation of local ecosystems, environmentally friendly product innovation, and compliance with environmental regulations.

The dependent variable is MSME Sustainability (Y), measured using 9 indicators covering long-term operational continuity, ability to adapt to market changes, business leadership regeneration, resilience to external pressures, growth of business networks, sustainable innovation, customer satisfaction and loyalty, business reputation in the community, and contribution to regional development.

The data collection instrument used a 5-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree). Instrument validity was tested using confirmatory factor analysis (CFA), while reliability was tested using Cronbach's Alpha and Composite Reliability (CR), with threshold values of CR > 0.70 and Average Variance Extracted (AVE) > 0.50 (Hair et al., 2019).

Data Analysis Method

Data analysis used Structural Equation Modeling - Partial Least Squares (SEM-PLS) with SmartPLS 4.0 software. SEM-PLS was selected because of its ability to handle complex models with relatively small samples, its lack of a normality requirement, and its ability to simultaneously analyze the measurement model (outer model) and structural model (inner model) (Hair et al., 2019; Ringle et al., 2015). Hypothesis testing was conducted using a bootstrapping procedure with 5,000 iterations at a 5% significance level ($p < 0.05$).

Qualitative analysis used a thematic approach (Braun & Clarke, 2006) involving open coding, axial coding, and selective coding. The validity of qualitative data was ensured through source triangulation, member checking, and peer debriefing with other researchers in the same field.

RESULTS AND DISCUSSION

Respondent Profile

Table 1 presents the profile of the 120 MSME respondents who were the subjects of this study. The distribution of business subsectors was relatively even, with agriculture and livestock dominating (28.3%), followed by local trade (25.8%), ikat weaving crafts (23.3%), and community tourism (22.5%). This composition reflects the diversity of community-based MSMEs in NTT and ensures adequate representation of various business contexts.

Table 1. Demographic Profile of MSME Respondents (n = 120)

Characteristic	Category	Frequency (n)	Percentage (%)
Business Sector	Agriculture & Livestock	34	28,3
	Ikat Weaving Crafts	28	23,3
	Local Trade	31	25,8

Characteristic	Category	Frequency (n)	Percentage (%)
	Community Tourism	27	22,5
Business Duration	< 2 years	18	15,0
	2–5 years	47	39,2
	> 5 years	55	45,8
Education Level	Elementary/Junior High School	29	24,2
	Senior High School/Vocational School	54	45,0
	Diploma/Bachelor's	37	30,8
Access to Capital	Self-Financing	61	50,8
	Bank/Cooperative Loans	41	34,2
	Government Assistance	18	15,0
TOTAL		**120**	**100,0**

Source: Primary data, processed (2026)

Measurement Model Test Results (Outer Model)

Table 2 shows that all constructs meet the criteria for convergent validity (AVE > 0.50) and reliability (Cronbach's Alpha > 0.70; CR > 0.70), so the measurement model is considered fit for use in subsequent analysis (Hair et al., 2019). The discriminant validity test using the Heterotrait-Monotrait Ratio (HTMT) criterion was also met, with HTMT values < 0.85 for all pairs of constructs.

Table 2. Construct Validity and Reliability Test Results

Construct	Cronbach's Alpha	CR	AVE	Description
Economic Dimension (X_1)	0,872	0,904	0,582	**Valid & Reliable**
Social Dimension (X_2)	0,891	0,918	0,601	**Valid & Reliable**
Environmental Dimension (X_3)	0,856	0,893	0,574	**Valid & Reliable**
MSME Sustainability (Y)	0,907	0,928	0,619	**Valid & Reliable**

Source: Primary data, processed (2024); CR = Composite Reliability; AVE = Average Variance Extracted

Quantitative Analysis Results: Structural Model (Inner Model) Testing and Hypothesis Testing

The structural model produced an R^2 value of 0.618, meaning that the three dimensions of TBL Accounting jointly explain 61.8% of the variation in MSME sustainability, while the remaining 38.2% is explained by factors outside the model. The Q^2 value of 0.401 indicates good predictive ability ($Q^2 > 0$) (Hair et al., 2019), and the GoF (Goodness of Fit) value of 0.473 indicates a strong model fit.

Table 3. Hypothesis Testing Results (Bootstrapping)

H	Path	Koef. Path (β)	Std. Error	t-stat	p-value	Decision
H1	Economic Dimension → MSME Sustainability	0,312	0,071	4,394	0,000	**Supported**

H	Path	Koef. Path (β)	Std. Error	t-stat	p-value	Decision
H2	Social Dimension → MSME Sustainability	0,437	0,068	6,426	0,000	**Supported**
H3	Environmental Dimension → MSME Sustainability	0,278	0,075	3,707	0,000	**Supported**

R^2 MSME Sustainability = 0.618; Q^2 = 0.401; GoF = 0.473

Source: SmartPLS 4.0 Output (2026)

Qualitative Analysis Results

Thematic analysis of interview transcripts from 10 key informants produced three main themes with nine sub-themes, as presented in Table 4.

Table 4. Qualitative Analysis Theme Matrix

Main Theme	Sub-Theme	Informant Code	Frequency of Occurrence
Economic Accountability	Informal cash-flow recording	I1, I3, I5, I7	Very High (12x)
	Capital-based pricing	I2, I4, I6	High (9x)
	Capital access constraints	I1, I2, I3, I8	High (10x)
Social Capital	Role of customary institutions	I1, I4, I5, I9	Very High (14x)
	Communal trust networks	I3, I6, I7, I8	High (11x)
	Mutual cooperation as capital	I2, I5, I9, I10	Very High (13x)
Environmental Awareness	Local agricultural wisdom	I1, I3, I6, I9	High (8x)
	Weaving production waste constraints	I2, I4, I7	Moderate (6x)
	Climate change adaptation	I5, I8, I10	Moderate (5x)

Source: Results of thematic analysis of in-depth interviews (2026)

Theme 1: Informal Economic Accountability

All informants acknowledged that they kept financial records, but in a format that did not follow formal accounting standards. The recording system commonly used was a "daily book" or daily transaction record that only recorded income and expenses without separating business assets from personal assets. Informant I3, an ikat weaving artisan in East Flores, stated:

"We record it in a notebook. There is money coming in and money going out. What matters is that there is a balance left at the end of each month. If there is a balance, it means our business is running. There is no need for reports like those required by banks."

This statement reflects that the concept of economic sustainability among NTT MSMEs is highly pragmatic and based on the monthly residual balance. Although simple, this system implicitly measures one element of the economic dimension of TBL, namely the ability to generate a surplus. This finding is consistent with Howorth and Westhead (2003), who identified financial bootstrapping as a dominant strategy among MSMEs without access to formal accounting systems.

Limited access to capital was the most frequently emerging sub-theme in the interviews, with all 10 informants reporting difficulties in obtaining loans from formal banking institutions. Collateral requirements that could not be met, complex application procedures, and limited financial literacy were the main obstacles. Informant I1 (a vegetable farmer in Kupang)

explained that they preferred joining a community cooperative even though the interest rate was higher because the procedure was simple and based on personal trust.

Theme 2: Social Capital as the Foundation of Sustainability

Customary institutions, as patrilineal clan systems governing kinship relations, land ownership, and communal responsibilities in NTT, emerged as key agents in supporting MSME sustainability. Four informants explicitly mentioned the involvement of soa as a critical factor in the continuity of their businesses. Soa is a traditional social or clan unit based on patrilineal kinship that inhabits customary villages in several customary areas of NTT (such as Flores or Alor).

Informant I4 (community tourism operator, Ende) explained:

"If there is a capital problem, we can first ask for help from the soa. This is not an ordinary debt. There is trust. There is a social responsibility that must be maintained. Therefore, we always try to pay on time so that the good name of the soa is not damaged."

This quotation illustrates how social capital in the form of the soa institution functions as an informal financing mechanism that goes beyond the mere provision of capital. It also contains a strong social accountability mechanism; family and clan reputation becomes a more effective guarantee than physical collateral. This phenomenon supports Coleman's (1988) argument concerning the role of social trust as a form of capital that can be converted into economic resources.

Mutual cooperation as a system of work and communal resources was also identified as social capital supporting the social dimension of TBL. MSMEs that actively participate in community mutual-cooperation activities tend to have stronger distribution and marketing networks because communal trust facilitates informal transactions without high contracting costs. This creates transaction-cost efficiency that contributes positively to the economic dimension of the business.

Theme 3: Environmental Awareness Based on Local Wisdom

The TBL environmental dimension was expressed by informants not in modern environmental terminology, but in the language of local wisdom embedded in traditional agricultural practices. The shifting cultivation system (neba) practiced by farmers in Ende Regency, although often criticized from a modern perspective, actually contains a land-rotation mechanism that allows natural recovery of soil fertility.

The most significant environmental challenge emerged in the ikat weaving subsector, where synthetic dyes used as substitutes for natural dyes have begun to create wastewater problems. Informants I2 and I7 expressed awareness of these negative impacts but did not yet have affordable practical solutions. This situation indicates a critical gap in the implementation of the environmental dimension of TBL in NTT ikat weaving MSMEs, which requires policy intervention and technical assistance.

Discussion

Effect of the Economic Dimension on MSME Sustainability (H1)

The test results show that the economic dimension of TBL Accounting has a positive and significant effect on MSME sustainability ($\beta = 0.312$; $t = 4.394$; $p < 0.001$), thus supporting H1. This finding is consistent with the studies of Cahyono et al. (2021) and Hutahayan (2020), which state that accounting practices based on transparent and planned financial performance improve MSMEs' ability to survive and grow. In the context of NTT, the ability of MSMEs to manage profitability, cash flow, and access to capital serves as a basic foundation supporting business continuity.

This finding is also consistent with Resource-Based View (RBV) theory, which states that financial capability is a strategic resource that provides competitive advantage to small

businesses (Barney, 1991). However, the lower influence of the economic dimension compared with the social dimension indicates that in the NTT community context, relational and social aspects carry greater weight than financial performance alone.

Effect of the Social Dimension on MSME Sustainability (H2)

The social dimension of TBL Accounting shows the most dominant influence on MSME sustainability ($\beta = 0.437$; $t = 6.426$; $p < 0.001$), confirming H2. The higher coefficient compared with the other dimensions indicates that community empowerment, strengthening social capital, and involvement of local workers are critical determinants of MSME sustainability in NTT. This finding strengthens the argument that in societies where community ties remain strong, social legitimacy and communal trust are invaluable business assets (Putnam, 2000).

Specifically, the indicators of participation in customary activities and strengthening social capital showed the highest loading factors within the social-dimension construct, highlighting the importance of integrating local cultural values into business strategies. MSMEs that integrate customary practices and meaningfully involve the community tend to receive stronger social support, which in turn increases business resilience to external pressures. This finding contributes to the development of social embeddedness theory in the context of community-based MSMEs in Eastern Indonesia.

Effect of the Environmental Dimension on MSME Sustainability (H3)

The environmental dimension of TBL Accounting was shown to have a positive and significant effect on MSME sustainability ($\beta = 0.278$; $t = 3.707$; $p < 0.001$), supporting H3. Although it has the smallest path coefficient among the three dimensions, its effect remains statistically and practically meaningful. This finding is relevant given that NTT has rich yet vulnerable natural ecosystems, so environmentally friendly business practices are not only a moral responsibility but also a long-term business strategy.

MSMEs that adopt good environmental practices, such as using sustainable local raw materials, properly managing waste, and preserving ecosystems, not only maintain the long-term availability of production resources but also build a positive reputation in an increasingly environmentally conscious market. This finding supports Legitimacy Theory, which states that business sustainability depends on an organization's ability to obtain and maintain legitimacy from its social and natural environment (Suchman, 1995).

Integration of Quantitative and Qualitative Findings

Triangulation between the quantitative and qualitative results provides a comprehensive picture. Quantitatively, the social dimension was shown to be the most dominant, and this was supported by qualitative findings, in which the values of mutual cooperation, kinship, and solidarity within business communities, as parts of the social dimension, were the main drivers of MSME sustainability in NTT. The social dimension (people) tends to be stronger because it grows from existing cultural structures and community life rather than from programs or regulations imposed from outside. The social dimension plays an important role in MSME sustainability in NTT for the following reasons:

1) Strong kinship and community ties
   Many businesses are family-, clan-, or village-based. Relationships among owners, workers, suppliers, and customers are personal and familiar, so social responsibility occurs naturally. Business owners generally feel responsible for the welfare of the people around them.
2) Values of mutual cooperation and local solidarity
   The tradition of helping one another and the practice of sharing proceeds within MSME communities in NTT are highly prominent. This value makes MSMEs oriented not only toward profit, but also toward maintaining balance and togetherness.

3) Local employment absorption
   MSMEs generally employ neighbors, relatives, or local residents, including women and groups that have difficulty entering the formal sector. In areas with limited employment opportunities, this provides tangible social contributions through household income and reduced migration out of NTT.
4) Prominent role of women
   In many areas, women are the backbone of businesses such as weaving, local food processing, handicrafts, and market trading. These businesses strengthen women's economic position and are often managed through groups, thereby broadening their social benefits.
5) Preservation of culture and local knowledge
   Many MSME products are rooted in cultural heritage, such as ikat weaving and local cuisine. MSMEs serve as a means of passing skills across generations and preserving cultural identity, which constitutes a distinct form of social value.
6) Role of customary, church, and mosque institutions
   Customary and religious institutions have substantial influence and often drive joint economic activities, such as cooperatives within congregations, congregation-based business groups, and social funds. These institutions also safeguard norms that encourage honesty, concern for others, and sharing.
7) 7) Group and cooperative models
   The existence of farmer groups, fishing groups, weaving groups, and village-based cooperatives enables the sharing of risks and benefits, making these institutional forms consistent with the communal character of local communities.
8) Support from empowerment programs
   The government, NGOs, and development institutions in NTT emphasize community empowerment, poverty alleviation, and inclusive development as major priorities, so this focus strengthens the existing social dimension.

Although the social dimension plays a very important role in the sustainability of community-based MSMEs in NTT, there are still several social challenges, including low wages, limited social security and labor protection, unequal access to education and skills, and gender inequality in some communities. Thus, the strength of the social dimension lies more in social solidarity than in formal worker welfare standards.

The economic dimension (profit) is both the foundation and the main motivation of MSMEs in NTT. The main roles of the economic dimension in MSME sustainability in NTT are as follows:

1) Main source of household livelihood
   For many families, MSMEs are not merely supplementary businesses but the main source of income. In areas with few formal employment opportunities, small businesses such as kiosks, food stalls, fishing and fish processing, agriculture, and handicrafts support consumption, children's education, and daily needs.
2) Employment absorption and poverty reduction
   MSMEs absorb a large proportion of the local workforce, including people with low levels of education or difficulty entering the formal sector. Because this region has a higher poverty rate than the national average, the role of MSMEs in generating income and reducing poverty is very important.
3) Processing local resources into value added
   Eastern Indonesia is rich in natural and cultural resources: fisheries, seaweed, coffee, cocoa, sago, coconut, nutmeg and cloves, weaving, and carving. MSMEs process raw materials into higher-value products, such as shredded fish, processed seaweed, roasted coffee, or woven fabrics, thereby retaining more economic value in the region.
4) Driver of the local economy

Money spent and circulated within communities creates a multiplier effect. MSMEs purchase materials from local farmers or fishers, employ residents, and sell to nearby markets, so economic circulation remains within the region.

5) Economic distribution and resilience
MSMEs are distributed across remote islands and villages that are not reached by large companies. Their flexible and small-scale nature makes local economies more resilient to shocks and reduces dependence on a single sector or employment outside the region.

6) Support for leading regional sectors
MSMEs contribute to sectors that are part of the region's identity, such as tourism (handicrafts and culinary products for tourists in Labuan Bajo, Raja Ampat, or Toraja), local food, and fisheries. These sectors create opportunities for broader markets.
7) Entry point for entrepreneurship and financial inclusion
For many people, MSMEs are the first step toward entrepreneurship and becoming familiar with financial services such as microcredit, cooperatives, or digital payments. This gradually builds community economic capacity.

In addition, several constraints limit the role of the economic dimension, including:

1) Limited access to capital and banking requirements that are difficult to meet
2) High logistics costs, making product prices less competitive
3) Narrow markets and low local purchasing power
4) Weak management, financial-recording, and marketing skills
5) Uneven infrastructure and digital connectivity
6) Dependence on collectors or middlemen who suppress prices

The test results for the Environmental (Planet) Dimension show that the Environmental Dimension has the lowest level of formal implementation among the three dimensions. This is supported by qualitative findings, in which informants had not yet consciously integrated environmental considerations into their business economic calculations. The environmental dimension (planet) in the sustainability or triple bottom line concept is indeed still far behind in MSMEs in NTT. The reasons include:

1) Short-term economic pressure
Most MSMEs in this region are micro-scale businesses operating for survival. With thin margins and limited capital, environmentally friendly practices are often perceived as additional costs rather than investments. Biodegradable packaging materials, energy-efficient production equipment, or waste treatment are considered expensive compared with their immediately visible benefits.
2) Limited infrastructure and logistics
Distribution costs in Eastern Indonesia are much higher because of the archipelagic conditions and difficult terrain. As a result, environmentally friendly materials, clean technologies, or efficient machinery are difficult to access and expensive. Basic facilities such as waste-processing sites, recycling facilities, or wastewater treatment plants are also limited, leaving business actors without practical options for properly managing waste.
3) Low sustainability literacy and awareness
Understanding of the environmental impacts of business activities, resource efficiency, and the circular economy concept remains limited. Unequal access to education and training exacerbates this situation. Environmental issues are often perceived as matters for the government or large companies rather than responsibilities of small businesses.
4) Weak regulation and enforcement
Environmental regulations exist, but supervision in remote areas is weak and MSMEs are rarely targets of enforcement. Without clear incentives or sanctions, there is little

external motivation to change. In addition, local government capacity for technical assistance is also limited.

5) Limited access to financing and incentives
   Green financing schemes, subsidies, and environmental certification programs are more concentrated in Java and large cities. MSMEs in Eastern Indonesia have difficulty meeting banks' administrative requirements, and information about supporting programs often does not reach them.
6) Direct dependence on natural resources
   Many MSMEs operate in fisheries, agriculture, forestry, or natural-resource processing. This dependence can trigger overexploitation (for example, unsustainable fishing or land clearing) when economic pressure is high. On the other hand, traditional practices that are actually aligned with nature, such as sasi in Maluku, are not always recognized or formalized as part of business sustainability strategies.
7) Markets that have not yet demanded sustainability
   Local consumers are generally still highly price-sensitive and have not yet made environmental considerations a major purchasing factor. Without market demand or supply-chain pressure, there is little commercial incentive to adopt green practices.
8) Lack of assistance and data
   MSME development programs tend to focus on marketing, legality, and digitalization, while environmental aspects are rarely a core component. Data and research on the environmental impacts of MSMEs in this region are also limited, making it difficult to design well-targeted policies.

Overall, the results of this study are consistent with the patterns found among MSMEs in Majene (Angreny et al., 2022; Poerwanto, 2021; Wulandari et al., 2026).

CONCLUSION

This study produces three main conclusions. First, the economic dimension of Triple Bottom Line Accounting has a positive and significant effect on the sustainability of local community-based MSMEs in NTT. Transparent and planned financial management is a basic prerequisite for business sustainability. Second, the social dimension of TBL Accounting has the most dominant influence on MSME sustainability, indicating that social capital, community involvement, and the integration of local cultural values are critical factors distinguishing the NTT context from other regions. Third, the environmental dimension of TBL Accounting has a positive and significant effect, confirming that environmentally responsible business practices are a long-term investment in the sustainability of MSMEs within NTT's distinctive ecosystem.

The qualitative findings support the quantitative results, showing that the implementation of TBL Accounting has the potential to support MSME sustainability; however, in the NTT context, these practices have so far been carried out mostly informally and have not been documented in formal accounting systems. Local community social capital, which is a distinctive characteristic of MSMEs in NTT, acts as a strengthening factor that reinforces the relationship between TBL Accounting and business sustainability. Therefore, collective aspects and local wisdom need to become an integral part of the sustainability accounting analysis framework for MSMEs. Most of these social practices are informal and culturally based rather than the result of consciously implemented or measured sustainability concepts. Several social aspects remain problematic, such as low wages, limited social security and labor protection, unequal access to education and skills, and gender inequality in some communities. Thus, the strength lies more in social solidarity than in formal worker welfare standards. The economic dimension functions as a driver of welfare and social stability in NTT, but is more often at a survival level than a growth level. This explains why economic pressures often outweigh environmental considerations, while the social dimension is stronger because it follows existing community structures.

The low implementation of the environmental dimension reflects more a combination of economic, infrastructure, knowledge, and policy constraints than indifference. A realistic approach is to link green practices with tangible economic benefits (such as cost efficiency or access to new markets), strengthen local assistance, provide affordable incentives and financing, and build upon existing local wisdom. This indicates that TBL training programs for NTT MSMEs need to explicitly build a bridge between local environmental wisdom and accounting practices for community-based MSMEs in NTT.

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