

A SWOT Analysis of Mobile Motorcycle Vegetable Traders and the Potential for Sustainable Income Growth in Mataram City



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<https://doi.org/10.18280/ijstdp.210118>

ABSTRACT

Received: 2 November 2025

Revised: 7 January 2026

Accepted: 15 January 2026

Available online: 31 January 2026

Keywords:

MSMEs, sustainable income, group of mobile motorcycle vegetable traders, SWOT analysis

Itinerant vegetable traders represent a traditional form of commerce that individuals can conduct in various locations. Mobile vegetable vending is a significant occupation for mitigating unemployment and augmenting household income. This study examined mobile motorcycle vegetable traders (locally referred to as the “Mpok Darling” group) in Mataram City, Indonesia. The sampling frame comprised mobile motorcycle vegetable traders operating in six sub-districts (Ampenan, Cakranegara, Mataram, Sandubaya, Sekarbela, and Selaparang). A total of 55 traders participated. The sample was allocated proportionally by sub-district based on the Mataram City District Office listing (2022) and recruited using proportional quota (criterion-based) sampling (Ampenan 12; Cakranegara 8; Mataram 10; Sandubaya 7; Sekarbela 8; Selaparang 10). The findings of this research emphasize prioritizing services for consumers, with traders preferring direct mobile sales without considering the preservation of vegetable freshness and side dishes. Consequently, street vegetable traders are recommended to pay greater attention to the freshness of vegetables, the cleanliness of their merchandise, punctuality, and customer service. Additionally, increasing the variety of vegetables offered may enhance the profitability and sustainability of business operations.

1. INTRODUCTION

Indonesian MSMEs are likely to sustain growth when they are supported by effective working-capital management. Etymologically, the term *management* is commonly traced to early French usage, referring to the “art” of conducting and directing activities. It is also linked to the Italian *maneggiare*, meaning “to control,” originally used in the context of handling horses, which itself derives from the Latin *manus* (“hand”). Later, French adopted the English term in forms associated with *ménagement*, conveying the idea of executing, arranging, and organizing work systematically.

Small-scale industries typically rely on labor that does not require advanced formal education; instead, recruitment and skill formation tend to emphasize experiential learning (“learning by doing”) [1]. This pattern is often shaped by historical trajectories and institutional legacies, consistent with path dependency logic [2]. Mobile vegetable traders are an example of such workers, as their occupation generally does not require high educational credentials. Their presence as providers of everyday vegetables and cooking ingredients

is widely recognized as a common feature of urban life [3, 4]. However, mobile vendors face recurring operational challenges. Vegetables purchased from farmers are not always sold within a single day, and any remaining stock frequently cannot be offered the following day because it deteriorates, wilting after prolonged exposure to sunlight and heat during travel [5, 6].

Positioned between microenterprise dynamics and everyday urban consumption, Mpok Darling, mobile motorbike vegetable traders, represent a highly visible form of MSME activity in Mataram City, Indonesia. Operating as informal micro-retailers, they connect upstream producers and wholesale markets with households through a low-capital, high-frequency distribution model that prioritizes speed, proximity, and turnover. Their mobility allows them to reduce consumers’ search and travel costs by bringing fresh vegetables directly into neighborhoods while simultaneously enabling traders to adapt routes, volumes, and product mixes to daily demand conditions. In this sense, Mpok Darling constitutes an analytically relevant MSME segment. They combine simple operational structures with meaningful economic and social

functions, yet remain exposed to vulnerabilities typical of perishable-goods microbusinesses, especially inventory risk, price volatility, and the constraints of working-capital management. Therefore, this study focuses on the Mpok Darling market in Mataram City to empirically examine these dynamics using trader-level data.

Based on the Mataram City District Office listing and field verification [7], there are approximately 165 mobile motorcycle vegetable traders in Mataram City. From this population, 55 traders were included in this study. The traders' ages ranged from 21 to 48 years. The daily capital range for these mobile vegetable sellers was Rp. 400,000 (four hundred thousand rupiah) up to Rp. 1,000,000 (1 million rupiahs). This mobile vegetable seller takes stock of vegetables, meat, and so on, some in the Pagesangan, Sweta, and Ampenan markets. The Pagesangan Market is a traditional market in Mataram City that has been designated as a pilot market in Pagesangan Village, where several MSMEs that sell vegetables on motorcycles often shop. Mobile vegetable traders incur more petrol costs than semi-sedentary vegetable traders because they must go around to houses. Mobile vegetable traders try to sell their merchandise on the same day by continuing to walk around until the merchandise runs out. These methodological differences also result in different incomes [8].

Table 1 presents the 2022 administrative listing of mobile motorcycle vegetable traders (Mpok Darling) in Mataram City by sub-district and gender (population N = 165). This distribution served as the sampling frame for the proportional quota allocation of the 55 respondents.

Table 1. Population of mobile motorcycle vegetable traders (Mpok Darling) in Mataram City by subdistrict and gender (N = 165), 2022

No.	Subdistrict	Gender		Number
		Man	Woman	
1	Ampenan	16	19	35
2	Cakranegara	13	11	24
3	Mataram	14	17	31
4	Sandubaya	12	10	22
5	Sekarbela	10	13	23
6	Selaparang	15	15	30

Source: Mataram City District, 2022

The administrative listing in Table 1 shows that men are the dominant heads of households who earn their daily income by selling vegetables using motorbikes. Field verification also indicates that husbands and wives in the same family sell vegetables around using motorbikes to supplement their living costs [9].

The types of vegetables, fruits, and side dishes that they usually sell are listed in Table 2. Even if there are additional items, they are based on special orders from consumers who are already customers. They obtain these types of vegetables, fruits, and side dishes from the main markets, namely Bertais Market, Pagutan Market, and Ampenan Market.

Mobile vegetable trading also plays a role in the efficiency of the city's economic system by providing daily vegetable and food needs. Recent empirical studies in Indonesia indicate that mobile/itinerant vegetable trading generates positive net income and, in terms of feasibility, is considered economically viable (e.g., RC ratio >1), supporting the conclusion that this activity can be profitable for traders [10]. In some cases, this action is considered more economical because it can reduce transportation costs, time, and energy consumption compared

to consumers buying directly from the market, for example. This role is felt by consumers living far from the market. Mobile vegetable trading can also increase the income of those who engage in it. Thus, mobile vegetable traders' willingness to work is determined by the income they receive and the hours they devote to earning that income. In addition, the number of working hours that mobile vegetable traders put in is influenced by many internal and environmental factors.

Table 2. Types of sales for mobile vegetable trader groups in Mataram City, Indonesia

No.	Types of Vegetable and Fruit Sales	Types of Side Dish Sales
1	Cabbage	Tahu
2	Carrot	Tempeh
3	Potato	Chicken
4	Vegetable mustard	Meat
5	Spinach	Mackerel tuna
6	Swamp cabbage	Freshwater fish
7	Sweet potato	Milkfish
8	Mango	-
9	Chayote	-
10	Cassava	-
11	Cayenne pepper	-
12	Tomato	-
13	Garlic	-
14	Red onion	-
15	Pawpaw	-

Source: Researcher survey results, 2023

By understanding the relationship between income and working hours and the factors that shape working hours, this study examines (i) the association between traders' income and daily working hours and (ii) whether age, length of service (experience), and number of household dependents significantly influence mobile vegetable traders' working hours. This focus is consistent with micro-level evidence on traveling vegetable traders, showing that working hours are positively related to both gross and net income and that age, years of service, and family dependents significantly affect working hours [11]. Street vendors are a type of informal sector capable of making a major contribution to the economy, including making it easier for people to obtain what they need, increasing the economy (income) of small communities, reducing unemployment, and increasing regional income and the gross domestic product. In some cases, this action is considered more economical because it can reduce transportation costs, time, and energy consumption compared to consumers buying directly from the market, for example. This role is felt by consumers living far from the market. Many vegetable traders cannot optimize their sales because of the poor quality of local products chosen by farmers; thus, many of their sales are dry and damaged when marketed or cannot last long [12].

The research gap lies in the limited availability of localized, practice-oriented strategic analysis of mobile motorcycle vegetable traders (Mpok Darling) in Mataram City, especially in terms of how internal business practices and external market conditions jointly shape their ability to sustain and grow their income. While these traders rely heavily on mobility and are therefore exposed to operating-cost volatility (including fuel-price fluctuations), such cost pressures represent only one part of a broader set of opportunities and threats they face in the market. Accordingly, this study applies a SWOT framework to systematically identify the key strengths, weaknesses, opportunities, and threats affecting Mpok Darling traders and

derive practical strategic recommendations for sustainable income growth in a sub-district context. This study provides a SWOT-based assessment of the internal capabilities and external conditions shaping the sustainable income growth potential of the Mpok Darling group in Mataram. Changes in operating costs and market conditions, including volatility in fuel prices that affect daily mobility costs, are treated as external threats within the SWOT framework rather than as the sole outcome of interest.

2. LITERATURE REVIEW

2.1 Income

In mobile vegetable trading, maintaining basic financial records, especially gross receipts and the expenses incurred to generate those receipts, is essential for monitoring the business performance. Without systematically tracking inflows and outflows, traders cannot credibly assess whether their operations are expanding, stagnating, or contracting over time, nor can they distinguish revenue growth from the cost-driven erosion of returns. In applied microenterprise accounting, “income” is commonly treated as an inclusive measure of returns accruing to individuals or firms, with careful attention to how the concept is defined and measured for analytical purposes [13, 14]. Additionally, the interest rate can be interpreted as a monetary payment associated with the use of capital, often expressed as a percentage, reflecting the cost of funds in economic transactions [15]. Profit, in the economic sense, is typically understood as the residual after all relevant costs, including the opportunity costs of production factors, have been accounted for, which helps separate the true surplus from merely compensating inputs [16]. Rent is often conceptualized as income derived from control over scarce assets (such as land) beyond what is necessary to keep those assets in their current use, with land rent representing a classic case in both theoretical and policy discussions [17]. Wages represent remuneration for labor services and are routinely operationalized as payments per unit of time (e.g., hourly, daily, and weekly), making them a core component of production costs and household income in small-scale trading activities [18].

By limiting their day-to-day expenditures while working in urban areas, mobile vegetable traders can accumulate earnings and remit a portion of their income to households in their home villages. These remittances are primarily allocated to basic consumption, especially food, as well as financing children’s education, minor home repairs, and clothing. Inflows of traders’ earnings into rural communities can strengthen local purchasing power by raising households’ disposable income. Moreover, the repeated round-trip mobility of traders generates a steady demand for transport services and can, in turn, reinforce the need for adequate transportation infrastructure.

2.2 Characteristics of mobile vegetable traders

Mobile vegetable traders are frequently stigmatized and treated as marginal or undesirable workers within urban societies [19]. However, although informal microenterprises often exhibit lower measured productivity than firms operating in the formal “modern” sector [20], itinerant vending can still represent a meaningful alternative to unemployment by

generating regular cash income and supporting household livelihood. Beyond appearance-based judgments tied to urban order and aesthetics, street vending provides an essential last-mile distribution service that helps meet everyday food needs and functions as a constitutive element of urban economic life [21]. In this sense, the sector absorbs labor through both primary and supplementary employment and can contribute to income security for low-income households [22]. Because these businesses operate independently while remaining embedded in broader market and governance arrangements, policy attention should prioritize supportive and practical facilitation rather than purely restrictive control so that traders can operate more securely and improve their performance. Evidence on formalization and relocation policies indicates that outcomes are more sustainable when interventions reflect vendors’ operating realities [23]. Strengthening the linkages between informal traders and formal actors may further promote more efficient and dynamic market interactions [24].

Street vendors have several defining operational characteristics, of which mobile vegetable traders are a part. First, they aim to sell their stock within the same day because the goods are highly perishable or available only in small quantities [25]; consequently, a daily capital turnover becomes essential. This imperative encourages traders to position themselves as close as possible to prospective buyers to ensure that their merchandise is sold [26, 27]. Second, their work routines are typically flexible, with trading conducted daily according to personal preference and contingent on situational conditions [26]. Third, products are commonly displayed and packaged in a basic manner, with limited attention to quality presentation, whether in terms of physical condition or aesthetic appeal [25]. Fourth, the assortment of vegetables offered generally varies with the planting and harvest seasons [25]. Fifth, prices tend to be variable, reflecting commodity conditions, stock characteristics, timing of sales, scarcity, and the relative bargaining power of sellers and buyers [26, 27].

In Petemon Village (Pagutan District, Mataram City), mobile vegetable traders generally distribute their goods using motorbikes. A distinctive aspect of their operating model is their reliance on family based arrangements. While home-based vending can offer several advantages, it is often constrained by location factors, as a residence may not be strategically situated or easily accessible to customers. In contrast, mobile vendors can travel to different areas daily to identify advantageous selling points, serve established customers, and recruit new buyers. Sithole and Wegerif [28] and Suri [29] noted five perceived benefits of mobile vegetable trading: proactively reaching consumers (“picking up the ball”), increasing customer convenience, maintaining freshness, offering a more comprehensive selection, and fostering consumer loyalty.

Running a business effectively requires deliberate planning and attention to key supporting functions, particularly aligning marketing actions with insights drawn from market and customer analyses [30, 31]. In the context of mobile vegetable vending, the service offers clear convenience benefits for households, especially for those who face time and mobility constraints, by bringing fresh products closer to consumers and reducing the need to travel to markets or fixed stalls [26, 28, 32]. These demand-side advantages suggest that itinerant selling can remain commercially viable and continue to represent a promising microenterprise pathway when managed strategically.

Prospective traders should learn practical operating

procedures and develop marketing and selling capabilities before entering this line of work because performance depends not only on effort but also on how well sellers adapt to customer needs and execute appropriate selling approaches [33]. More broadly, strategy functions as a set of coordinated decisions and actions that enable small firms to pursue their objectives under uncertainty; evidence from SMEs indicates that stronger managerial and marketing capabilities are associated with better outcomes [30].

3. RESEARCH METHODS

3.1 Research design

This study used a qualitative descriptive design and SWOT analytical framework. Primary data were obtained through semi-structured interviews and field observations, supported by documentation and literature reviews. Quantitative information was limited to descriptive counts (e.g., population distribution by sub-district and respondent characteristics) and was used only to contextualize qualitative SWOT findings.

To operationalize SWOT results into a comparable strategic position, the study constructed an Internal Factor Evaluation (IFE) matrix for strengths/weaknesses and an External Factor Evaluation (EFE) matrix for opportunities/threats. The factors were compiled from the validated SWOT list, and overlapping/duplicated items were removed so that each factor represented a distinct condition. Each factor was assigned a weight (0.00-1.00) reflecting its relative importance, with total weights summing to 1.00 for each matrix. Weights were derived using a mention-frequency approach from field interviews (i.e., the number of respondents mentioning a factor normalized by the total mentions across factors) and cross-checked with observation notes for their plausibility. Each factor was then assigned a rating: for IFE, 1 = major weakness, 2 = minor weakness, 3 = minor strength, 4 = major strength; for EFE, 1 = poor response, 2 = average response, 3 = above-average response, 4 = superior response to the external factor. A weighted score was computed as weight \times rating for each factor, and the total IFE/EFE scores were obtained by summing all weighted scores. Finally, the IE Matrix position was determined by plotting IFE (x-axis) against EFE (y-axis) using the standard 3 \times 3 grid, which in this study placed Mpok Darling in Cell V (IFE = 2.59; EFE = 2.19) as the basis for selecting priority strategic directions and deriving SO/WO/ST/WT strategy alternatives.

3.2 Population and sample

The study population comprised mobile motorcycle vegetable traders (Mpok Darling) operating in Mataram. To ensure representation across the six sub-districts, the sample was distributed proportionally using the Mataram City District Office listing (2022) (population N = 165: Ampenan 35; Cakranegara 24; Mataram 31; Sandubaya 22; Sekarbela 23; Selaparang 30). Because a complete, up-to-date roster with contact details was not available for probability sampling in the field, respondents were recruited using proportional quota sampling by subdistrict. Within each quota, participants were purposively selected based on the inclusion criteria (active mobile vending by motorcycle during the study period and

willingness to participate). Based on proportional allocation across the six sub-districts, the 55 respondents were distributed as follows: Ampenan (n = 12), Cakranegara (n = 8), Mataram (n = 10), Sandubaya (n = 7), Sekarbela (n = 8), and Selaparang (n = 10). Proportional allocation by sub-district was used to reflect the geographic distribution of traders and avoid over-representing any sub-district.

3.3 Data collection

Data collection in research relies on appropriate instruments and procedures to improve the accuracy and credibility of evidence generated. Because the primary objective of empirical inquiry is to obtain high-quality data, decisions regarding data gathering constitute a central methodological component of the study [34]. In this study, data were collected using four complementary techniques: (1) literature/document review, (2) observation, (3) interviews, and (4) documentation. Document-based collections can be implemented systematically through transparent steps for identifying, extracting, and interpreting relevant sources [35], whereas interviews require careful design to ensure consistency and methodological rigor [36].

The analytical approach employed was SWOT (Strengths, Weaknesses, Opportunities, Threats), which structures strategic assessment by aligning internal attributes (strengths and weaknesses) with external conditions (opportunities and threats) to inform strategy formulation [37]. SWOT-based reasoning seeks to leverage strengths to capture opportunities while reducing weaknesses and mitigating threats [37]. The resulting SWOT/TOWS matrix integrates these internal and external dimensions and commonly generates four strategic alternatives, SO, WO, ST, and WT, derived from the interaction between organizational capabilities and environmental pressures [38].

Figure 1 illustrates the SWOT/TOWS strategy formulation logic: an IFE identifies an organization's strengths (S) and weaknesses (W), while an EFE identifies opportunities (O) and threats (T). These four factors are then paired to generate four strategic options: SO strategies use strengths to seize opportunities; WO strategies reduce weaknesses by leveraging opportunities; ST strategies use strengths to counter threats; and WT strategies minimize weaknesses to avoid or reduce exposure to threats.

3.4 Ethical statement

This study was conducted in accordance with ethical standards and received ethical clearance from the Institutional Review Board of the Ethical Committee on Social Studies and Humanities at the National Research and Innovation Agency. The approval granted under No: 433/KE.01/SK/05/2024 ensures that the study adheres to ethical guidelines related to social studies and humanities research. Written consent was obtained to ensure clear documentation of each participant's understanding of the study's purpose, their rights, and the voluntary nature of their involvement. This approach aligns with ethical standards for data protection and participant confidentiality, providing a tangible record of consent that supports transparency and accountability throughout the research.

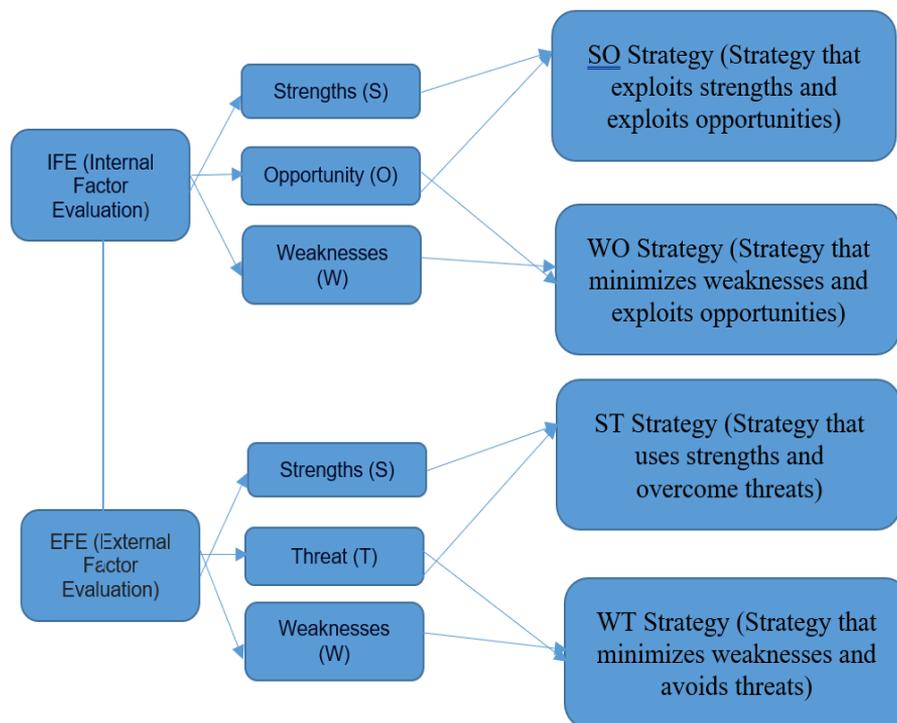


Figure 1. SWOT matrix

Table 3. SWOT analysis of motorcycle vegetable MSMEs in Mataram City

S	Strength (S)	W	Weakness (W)
1	Expanding regional network subscriptions.	1	The remaining vegetables cannot be resold because the vegetables are no longer fresh/wilted.
2	Strategic mobile selling locations are easy for customers to find.	2	Greater capital expenditure to buy petrol and service motorbikes once a month.
3	Providing complete merchandise that consumers need every day, such as various kinds of vegetables, meat, tubers and spices.	3	The goods offered are fewer or incomplete.
4	The facilities for placing containers for various items are neat and clean so that customers are comfortable.		
5	The quality of the vegetables is fresher because they are sold to be finished in one day.		
6	There is a greater opportunity to achieve targets so that the merchandise can be sold out in a short time by entering housing that is far from the market.	4	The goods sold are more expensive than in the market.
	O Opportunity (O)		T Threat (T)
1	Suitable for running in rural and urban areas.	1	Prices of materials are uncertain, resulting in difficulties in calculating capital and profits.
2	Business can be started on a small or large scale.	2	Customers can move to another trader when another trader offers a cheaper price.
3	The capital can be adjusted.	3	Gasoline prices can rise at any time.
4	No special skills are needed to start a business.	4	Increasing competition/new entrants
5	There are few competitors in the locations visited because almost every street vegetable seller already has a permanent location and regular customers.	5	Take into account the petrol costs incurred on each road.
6	Utilize social media.		

Source: Data processed by researchers, 2023

3.5 Results and discussion

This section elucidates the factors influencing the efficacy of the mobile motorcycle vegetable traders' group (Mpok Darling) in Mataram City, specifically through a SWOT analysis. Table 3 delineates the strengths and weaknesses that impact a group's capacity to enhance MSME income and sustain its market relevance.

The challenges encountered by mobile vegetable vendors utilizing motorcycles include fuel consumption and the

preservation of vegetable and side-dish freshness when exposed to the wind and direct sunlight. Furthermore, vendors often lack proficiency in recording and managing their business capital and human resources. Consequently, the activity planning stage can be delineated in the empowerment-based learning design process as follows: (1) determining the needs and direction of the appropriate location, (2) selecting the optimal method, (3) refining the sales design, (4) implementing and evaluating, and (5) mentoring. Among the group's strengths, its capacity to expand its network of regular

customers across various regions has proven advantageous, fostering customer loyalty and generating consistent demand. Vendors' mobility enables them to establish a strategic presence in high-demand areas, facilitating customer access to fresh produce without necessitating travel to the markets. This advantage is particularly significant, as they can position themselves in neighborhoods with limited access to fresh vegetables, often becoming a reliable source of daily essentials. Moreover, by offering a diverse selection of items, ranging from vegetables and spices to meats, vendors can meet the varied needs of their customers, encourage repeat purchases, and enable customers to fulfill their shopping requirements in a single purchase. Vendors maintain well-organized and sanitary containers, enhancing the visual appeal of their merchandise and cultivating customer trust. The freshness of their produce, as they endeavor to sell each day, provides a competitive advantage, increasing the likelihood of customer purchases.

Darling encountered several operational challenges. Perishability is a critical concern; unsold vegetables often deteriorate by the end of the day, limiting their marketability. Furthermore, the expenses associated with maintaining mobility are substantial, with significant expenditures on fuel and regular motorcycle maintenance contributing to operational costs. An additional limitation lies in the restricted volume and variety of goods transported via motorbikes, which occasionally fail to meet customer expectations for a comprehensive shopping experience. Comparatively higher prices relative to traditional markets also dissuade some consumers, as mobile vendors must incorporate additional transportation and perishability-related risks into their pricing structure.

The opportunities identified in the analysis indicate potential avenues for growth, such as the adaptability of this business model to rural and urban environments. The simplicity of the business allows for initiation on various scales, and minimal specialized skills are required, rendering it accessible to numerous potential traders. Social media platforms provide opportunities for promotion and customer engagement, enabling traders to reach a broader audience and cultivate a loyal customer base. However, threats persist, particularly the volatility of material prices, which presents challenges in consistently managing profit margins. Price-sensitive customers may transition to competitors, especially if alternative traders offer lower prices, and increasing fuel costs introduce an element of unpredictability to daily expenses. The growing number of competitors on similar routes and the emergence of vendors with fixed stalls in high-traffic areas pose additional risks, potentially saturating the

market and reducing individual traders' profitability. The SWOT analysis reveals that while Mpok Darling benefits from a versatile and adaptable model, strategic adjustments are necessary to address operational weaknesses and mitigate the external threats posed by competition and fluctuating fuel prices. Emphasizing the maximization of strengths, such as customer convenience and product freshness, while identifying methods to reduce operational costs, will be crucial for sustaining income growth for mobile vegetable traders.

The IFE matrix was used to summarize the key internal strengths and weaknesses of the Mpok Darling mobile vegetable traders in Mataram City in a structured, comparable form. The internal factors were drawn from the SWOT identification results (Table 4), and duplicates were removed so that each factor represented a distinct condition. Each factor was assigned a weight (0.00–1.00) to reflect its relative importance to traders' performance, with all weights summing to 1.00. Each factor was then assigned a rating on a 1-4 scale to represent the current internal condition: 1 = major weakness, 2 = minor weakness, 3 = minor strength, and 4 = major strength. The weighted score for each factor was calculated by multiplying its weight by its rating, and the overall IFE score was obtained by summing all the weighted scores.

The total IFE score was 2.59, indicating that the traders' internal position was moderately strong (i.e., slightly above the average benchmark of 2.50). The strongest internal contributors were ease of access to strategic selling locations and the ability to provide fresher products through fast turnover, while the most critical internal constraints were the inability to resell unsold vegetables due to spoilage and the higher operating costs associated with fuel and motorbike maintenance.

The EFE matrix was used to translate the identified opportunities and threats faced by Mpok Darling mobile vegetable traders in Mataram City into a quantitative summary of the external environment and the traders' current ability to respond (Table 5). The external factors were taken from the SWOT identification results (Table 3) and then refined to remove overlapping items, so each opportunity or threat represented a distinct external condition. Each factor was assigned a weight (0.00-1.00) to reflect its relative importance, with the total weight summing to 1.00. Each factor was then rated on a 1-4 scale that indicates how effectively current practices and strategies respond to that external factor: 1 = poor response, 2 = average response, 3 = above-average response, and 4 = superior response. The weighted score for each factor was calculated as weight × rating, and the overall EFE score was obtained by summing all the weighted scores.

Table 4. Internal factor evaluation (IFE) matrix of Mpok Darling, Mataram City, Indonesia

Code	Internal Factors	Weight	Rating	Weighted Score
S1	Expanding regional network subscriptions	0.1	3	0.3
S2	Strategic mobile selling locations are easy for customers to find	0.12	4	0.48
S3	Providing complete daily-need merchandise (vegetables, meat, tubers, spices)	0.11	3	0.33
S4	Neat/clean containers and selling facilities that make customers comfortable	0.08	3	0.24
S5	Vegetables are fresher because sold to finish in one day	0.11	4	0.44
S6	Greater opportunity to sell out faster by entering housing far from the market	0.07	3	0.21
W1	Remaining vegetables cannot be resold because they are no longer fresh/wilted	0.12	1	0.12
W2	Greater operating cost: petrol+monthly motorbike servicing	0.11	1	0.11
W3	Goods offered are fewer/incomplete	0.09	2	0.18
W4	Prices are higher than in the market	0.09	2	0.18
	Total	1		2.59

Table 5. External factor evaluation (EFE) matrix of Mpok Darling, Mataram City, Indonesia

Code	External Factors	Weight	Rating	Weighted Score
O1	Suitable for running in rural and urban areas	0.08	3	0.24
O2	Business can be started on a small or large scale	0.07	3	0.21
O3	Capital can be adjusted	0.07	3	0.21
O4	No special skills are needed to start a business	0.05	2	0.1
O5	Few direct competitors in visited locations (many sellers have fixed spots/regular customers)	0.11	3	0.33
O6	Utilize social media	0.12	2	0.24
T1	Input/material prices are uncertain, making it hard to calculate capital and profit	0.13	2	0.26
T2	Customers may switch to other traders offering cheaper prices	0.11	2	0.22
T3	Gasoline prices can rise at any time	0.14	1	0.14
T4	Increasing competitors/new entrants (merged from duplicated competitor threats)	0.12	2	0.24
Total		1		2.19

The total EFE score was 2.19, which is below the average benchmark of 2.50, indicating that the current strategic response to the external environment remains relatively weak. The main pressures reducing the score were fuel price volatility and uncertainty in input prices, which directly increased operating costs and complicated profit planning, alongside customer switching behavior driven by price differences and rising competition from new entrants. Meanwhile, higher-scoring opportunities reflect the business's flexibility across rural–urban areas and the potential to leverage relatively low direct competition in certain serviced locations and digital channels, although these opportunities have not yet been fully converted into strong strategic responses.

3.6 Discussion

Mobile vegetable traders (“Mpok Darling”) often face managerial constraints that are reflected in product freshness and quality, inefficiencies in operational spending, such as fuel, intensifying competition, and exposure to price fluctuations. Such operational challenges are common in informal fresh food trading contexts, where quality maintenance and day-to-day logistics can be difficult to standardize [39, 40]. Drawing on the SWOT framework as a structured tool for aligning internal conditions with external opportunities and threats, the analysis indicates several actionable directions for improving traders' performance and resilience [41, 42]. Key recommendations include strengthening customer loyalty through consistent communication and relationship building while simultaneously expanding demand through online channels. Increased use of social media platforms, especially Facebook, can enhance visibility, support customer engagement, and contribute to loyalty formation, provided that traders develop basic digital familiarity through regular practice and guided assistance [43, 44]. Promotional activities via Facebook and WhatsApp, wider coverage of selling areas, and readiness to accept orders from more distant locations may further extend market reach; where distance increases delivery burdens, differentiated shipping charges can be introduced to protect margins [45].

From a broader retail perspective, mobile vegetable selling constitutes a form of retailing because it involves providing goods directly to end consumers for household use, even though transactions occur outside conventional store-based settings [45–47]. The findings also suggest that traders' income prospects are shaped not only by market conditions but also by how effectively they allocate time to serve customers and

fulfill orders, making time-use optimization a practical lever for improving both gross and net earnings [48, 49]. Given the sector's contribution to urban economic activity and everyday food access, local policy interventions, such as targeted welfare support for older vendors and households with heavy dependents, alongside capacity building for digital marketing, are warranted to strengthen livelihoods and inclusion in the city's economy [28, 50].

4. CONCLUSION

This study used SWOT analysis to map the key strengths, weaknesses, opportunities, and threats faced by mobile motorcycle vegetable traders (Mpok Darling) in Mataram City and to interpret their potential for sustainable income growth. The findings indicate strengths in customer proximity and routine demand, alongside weaknesses related to perishability and the operating expenses. Opportunities include digital communication and market expansion, whereas threats include fuel price volatility, rising input costs, and increasing competition. These insights can guide practical strategies for improving resilience and sustaining income.

This study primarily focused on a specific geographical area and particular group of traders. A more comprehensive nationwide study could provide a more extensive understanding of the issues affecting these traders' livelihoods. Additionally, the research relied on self-reported data, which may have been biased. Future research should consider utilizing more objective data collection methods, such as sales records or financial statements. Furthermore, a longitudinal study could track changes in the industry over time, allowing for a more thorough understanding of the impact of external factors, such as economic fluctuations and policy changes. Future research could also investigate the specific strategies employed by successful traders to overcome challenges and increase their income. By identifying best practices, policymakers and industry stakeholders can develop targeted interventions to support the growth and sustainability of this sector. Moreover, exploring the potential of technologies such as mobile applications and digital payment systems to enhance the efficiency and profitability of mobile vegetable trading could be a productive area for future research.

The findings of this study have significant implications for various stakeholders. Policymakers should implement targeted support programs, such as fuel subsidies or microfinance loans, to enhance the resilience of mobile vegetable traders. Investing in infrastructure, including improved roads and

market facilities, can increase efficiency and profitability. Skill development programs in business management, financial literacy, and digital marketing may enable traders to adapt to changing market conditions. Industry stakeholders, such as wholesalers and retailers, can collaborate with traders to establish efficient supply chains and reduce costs. Innovative solutions, including mobile payment systems and online platforms, can assist traders in reaching a wider customer base and improving their competitiveness in the market. For mobile vegetable traders, effective financial management, continuous learning, and networking can enhance their livelihoods and contribute to the region's overall economic growth.

AUTHOR CONTRIBUTIONS

Triana Lidona Aprilani developed the study concept and design, led data collection, conducted the analysis, and wrote the initial manuscript draft. Muhammad Habibullah Aminy supported the literature review and offered interpretation regarding the implications of the findings for mobile vegetable traders. Dara Nida Utamie contributed to data collection and analysis and assisted in drafting the results section. Fathurrahman provided critical input on the research design and supported the data analysis and manuscript development. Baiq Dewi Lita Andiana assisted with the literature review and contributed discussion on the study's economic implications. Suci Emilia Fitri contributed methodological expertise in qualitative research, refined the research approach and reviewed the manuscript to enhance clarity. Imam Radianto Anwar Setia Putra supported the quantitative analysis, interpreted statistical outputs, and reviewed relevant sections for accuracy. Mochammad Fahlevi advised on operational considerations and helped formulate recommendations, while Aulia Luqman Aziz coordinated the overall project, ensured integration across contributions, and led the final manuscript revision. All the authors approved the final version of the manuscript.

ETHICAL STATEMENT

This study was conducted in accordance with ethical standards and received ethical clearance from the Institutional Review Board of the Ethical Committee on Social Studies and Humanities at the National Research and Innovation Agency. The approval was granted under No: 433/KE.01/SK/05/2024.

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