

(Research Article)

Strategic Location of Traditional Markets in Medan City (A Spatial and Economic Approach)

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Abstract: Traditional markets play a central role in the local economic system and the social life of communities, particularly in Medan City. However, the dynamics of urbanization, competition from modern retail, and changes in consumer behavior have posed significant challenges to their sustainability. This study aims to analyze the relationship between the strategic location of traditional markets and their economic performance using a mixed-methods approach and spatial analysis. The research focuses on six traditional markets in Medan City: Petisah Market, Sukaramai Market, Beruang Market, Ikan Lama Market, Sei Sikambing Market, and Pringgane Market. Quantitative data were collected through questionnaires using a Likert scale and analyzed descriptively and correlationally, while qualitative data were gathered through field observations and in-depth interviews to interpret the socio-spatial context of each market. The key variables include accessibility, commodity diversity, and environmental comfort, which are linked to economic performance indicators such as visitor numbers, buyer loyalty, and sales stability. The results show that Petisah, Pringgane, and Ikan Lama Markets scored highest in these variables and demonstrated better economic performance. Correlation analysis identified commodity diversity as the most influential factor on economic performance, followed by environmental quality and accessibility. To strengthen the analysis, a SWOT model was also applied to identify the strengths, weaknesses, opportunities, and threats faced by traditional markets. This analysis reveals that the primary strengths of the markets lie in their location and social interaction, while the main challenges stem from a lack of modern management and pressure from digital markets. This study recommends development strategies based on local advantages, infrastructure modernization, market information digitalization, and cultural promotion as steps to sustainably enhance the competitiveness of traditional markets amid urban spatial changes.

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1. Introduction

Traditional markets play a vital role in driving the local economy and are an integral part of urban community life in Indonesia, including in Medan City. As the center of regional economic activity, Medan holds a strategic position in North Sumatra—not only due to its infrastructure and accessibility but also because of its trading areas, such as traditional markets, which support daily economic activities. This aligns with the study by Rangkuti & Putra (2023), which stated that the economic growth of Medan City cannot be separated from the development of strategic areas that support the city's overall economic and network systems (Rangkuti et al., 2023). As one of the major cities and economic hubs in Sumatra, Medan is experiencing rapid development in infrastructure, transportation, and consumption patterns.

Medan's strategic position in the regional network of North Sumatra is evident through its role as an economic center and regional connectivity hub (Milanie, 2023). However, the dynamics of urban growth, which are not always in line with equitable infrastructure distribution, along with shifting urban consumption patterns, present challenges to the sustainability of traditional markets (Nuraini, 2024).

This phenomenon is especially visible in Medan, one of the largest metropolitan areas on the island of Sumatra, which is currently undergoing rapid and complex urban expansion. The city has a dense and dispersed network of traditional markets, but not all of them show optimal performance in terms of accessibility, consumer appeal, and local economic performance (Alam et al., 2023; Yiming et al., 2024).

The issue of strategic location is a crucial factor in determining the success of traditional markets. Inappropriate market locations can lead to low visitor numbers, high distribution costs, and weak competitiveness compared to modern markets or digital platforms. Marketing strategies for traditional markets must consider changes in consumer behavior, especially during times of crisis or economic pressure. Milanie (2021) emphasized that market atmosphere management—including price reductions and product quality—significantly affects consumer purchasing interest during the pandemic. In this context, spatial and economic approaches become essential in evaluating and formulating development strategies for traditional markets.

The spatial approach aims to assess the relationship between market location, transportation networks, population density, and economic activity centers. Meanwhile, the economic approach focuses on the efficiency of markets in terms of demand and supply, commodity prices, and community purchasing power (Hidayat et al., 2023; Nuraini, 2019; Sri Rejeki et al., 2024). The growth of modern retail, which offers convenience, cleanliness, and better transportation access, is increasingly shifting consumer preferences. Additionally, advances in information technology have led to the rise of online platforms that allow consumers to order essential goods without visiting physical markets. This forces traditional markets to adapt, including space management, service quality improvements, and strategic location planning to remain relevant in today's fast-paced era (Nuraini et al., 2023).

As explained in location theory, the existence of an economic activity is highly dependent on its geographical position in relation to resources, consumer markets, and supporting infrastructure. This is emphasized in the Central Place Theory by Walter Christaller, which states that traditional markets function as service centers providing basic needs. Within this framework, spatially strategic market placement directly impacts the number of reachable consumers and the market's economic sustainability.

From a regional and urban planning perspective, the mixed-use development theory asserts that integrating residential areas, commercial facilities, and transportation infrastructure within a single zone can create space efficiency and strengthen socioeconomic cohesion. This means that traditional markets integrated within good spatial networks are more likely to develop sustainably compared to those located in isolated or inaccessible areas.

In Medan, several traditional markets face challenges in terms of accessibility and competitiveness. Some are located in densely populated areas but lack adequate road infrastructure, while others are in strategic locations yet experience a decline in visitors due to competition from modern markets. Meanwhile, the local government has made efforts to revitalize markets, though most efforts focus on physical improvements without fully considering spatial and economic dimensions. This is consistent with findings on Medan's spatial development, which reveals a polycentric spatial pattern where traditional markets serve as local economic nodes distributed across various city subregions (Milanie, 2023, p. 5).

Thus, a comprehensive study is necessary to identify the determining factors of strategic traditional market locations in Medan City. This study is not only academically relevant in contributing to location theory and urban spatial planning but also practically valuable as a basis for local government policy-making in managing and developing sustainable traditional markets.

This research emphasizes the importance of the relationship between spatial dimensions—such as accessibility, transportation connectivity, and proximity to residential areas—and economic dimensions, such as purchasing power, price stability, and transaction volume. The combination of these approaches is expected to provide a more holistic understanding of the success or failure of traditional markets amid ongoing urbanization. A strategically located market not only offers opportunities for MSMEs (Micro, Small, and Medium Enterprises) but also strengthens local economic circulation and reduces disparities in the distribution of goods and services.

Spatial distribution weaknesses in Medan's markets also negatively affect marginalized groups (Siregar et al., 2023; Simatupang, 2019). In some sub-districts, the absence of easily accessible traditional markets forces residents to travel long distances for basic needs or depend on modern stores with relatively higher prices. On the other hand, overcrowded markets without proper commodity zoning systems cause traffic congestion, environmental disorder, and a decline in shopping experience quality.

These phenomena indicate that the development strategy for traditional markets cannot rely solely on a sectoral approach but must also integrate spatial and socioeconomic dynamics. Therefore, this study is essential to map out the spatial and economic characteristics of six traditional markets in Medan, namely: Petisah Market, Sukaramai Market, Beruang Market, Ikan Lama Market, Sei Sikambing Market, and Pringgagan Market. These markets have different spatial characteristics, making them relevant for comparative analysis in formulating appropriate and contextual strategies.

(1) Petisah Market is one of the iconic markets in Medan City, located in the city center, specifically in the Medan Petisah District. This market has long served as a center for traditional economic activity and is known as a place where people can obtain various basic commodities, ranging from fresh food, spices, vegetables, fruits, to clothing and household goods. The vibrant atmosphere of street vendors, permanent stalls, and well-organized two-story buildings makes Petisah Market an important shopping destination for the residents of Medan and its surroundings. Historically, the market developed in line with the growth of Medan's city center and is easily accessible by both public and private transportation. The consistent visitor density, wide variety of commodities, and strategic geographic location make Petisah Market one of the main benchmarks in studying the dynamics of traditional markets in this city.

(2) Sukaramai Market, located in the Medan Area District, is known for its relatively affordable prices and an atmosphere that truly reflects the character of a traditional market. With narrow alleys, vendor tents, and intense bargaining interactions, this market represents the daily consumption patterns of the lower to middle-income communities. Sukaramai Market stands out due to its easy access for nearby residents, making most of its visitors local people who have a strong attachment to the market. Economically, this market contributes to the informal sector and MSMEs, as many of the vendors at Sukaramai Market are small entrepreneurs or self-employed workers. Although it does not have the infrastructure of larger and more established markets, Sukaramai Market continues to survive and adapt to the needs of the surrounding community, making it a key point in the staple goods distribution network in Medan.

(3) Beruang Market, located in the Medan Maimun area not far from the city center, is known as a market that serves the surrounding community by providing daily necessities. Although its name may not be as popular as Petisah Market, it still plays an important role as a supplier of daily needs for nearby residents. Its location in a densely populated residential area and relatively easy access allow Beruang Market to optimize its function as part of the local food distribution chain. The market environment, which is more "homely" and quieter than larger markets, creates a more familiar atmosphere between vendors and consumers. In this study's context, Beruang Market can be seen as an example of a medium-scale market with strong local reach.

(4) Ikan Lama Market, although it no longer sells seafood commodities as it did when it was first established, still functions structurally and functionally as an active traditional market relevant for analysis. The change in the types of commodities sold—now dominated by textiles, prayer supplies, and hajj souvenirs—indicates a transformation in the market's function as part of adapting to community needs and urban dynamics. Ikan Lama Market is located in Kesawan, one of the central areas of Medan City with an important role in economic and tourism activities. The market still exhibits characteristics of a traditional market, such as direct interaction between vendors and buyers, a bargaining system, and management by local government authorities. This aligns with Rukmana's (2018) view that changes in the types of goods sold do not necessarily alter the institutional identity of traditional markets as long as their main social and economic functions remain. Within this research, Ikan Lama Market is considered important to showcase the diversity of forms and the evolution of traditional markets in Medan City. Including this market as part of the sample allows the research to capture spatial complexity and functional change that is not only linear but also contextual. Therefore, the existence of Ikan Lama Market is not considered a deviation but instead enriches the spatial mapping and revitalization strategies for traditional markets in urban areas.

(5) Sei Sikambing Market, located in the Medan Helvetia area, is one of the regions growing in line with urban expansion. This market is quite large and known as a place offering a variety of household necessities, from fresh groceries to clothing and kitchenware. The crowded and densely populated environment around Sei Sikambing Market makes it a strategic location for marketing daily products. Unlike older and more historical markets in the city center, Sei Sikambing Market developed alongside the emergence of new residential areas. Therefore, this market provides insights into how traditional markets grow in line with urban expansion and demographic dynamics.

(6) Pringgagan Market, also located near the Medan Petisah area, is known for its fresh food products and a wide variety of delicious local snacks. Although not as large as Petisah Market, it plays an important role in fulfilling the vegetable, fruit, and ready-to-eat food needs of nearby residents. Pringgagan Market's strategic factors include its easy access from several parts of the city and its reputation as a provider of fresh commodities. This makes the market an alternative for consumers who prioritize product quality at still-affordable prices. From an economic perspective, this market illustrates how vendor hospitality, commodity quality, and accessible location can influence consumer preferences in market selection.

This research will also apply both quantitative and qualitative methods to explore buyers' and vendors' perceptions of strategic location factors and their impact on market performance. The quantitative approach is used to measure variables such as accessibility, commodity diversity, and market cleanliness, while the qualitative approach will explore more deeply the social and historical aspects that influence market attractiveness from the perspective of local actors (Penerapan Konsep Arsitektur Hijau Pada Gedung et al., 2023; Trisilia Pohan et al., 2024). The spatial approach in this study refers to the concept of regional development that highlights the strategic role of economic centers in promoting urban area integration (Milanie, 2023). Therefore, it is important to examine the factors affecting the sustainability of traditional markets not only from spatial and economic aspects but also from internal and external market dimensions.

To provide a more comprehensive understanding, this study also uses a SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) to map the strengths, weaknesses, opportunities, and threats faced by traditional markets in Medan City. The use of this approach is expected to enrich the perspective in formulating development strategies for traditional markets that are adaptive to modern urban dynamics and digital market competition.

Thus, the main research question of this study is: "How can the strategic location of traditional markets in Medan City be determined based on spatial and economic approaches?". This question will be answered through the measurement of relevant spatial and economic factors, the collection of primary data from market stakeholders, and the analysis of the relationship between these variables in the context of urban development. The results of this study are expected to provide policy recommendations that can be implemented by the Medan City Trade Office, Bappeda, and other related agencies in preparing sustainable and equitable market development or revitalization plans. Furthermore, the findings of this study may also contribute to the formulation of more inclusive and efficient urban spatial planning, particularly in ensuring public access to affordable and high-quality local economic facilities. Ultimately, in the midst of digital and globalization era challenges, traditional markets remain relevant if they are able to adapt through strategic location selection, efficient services, and strengthening of local socioeconomic networks. Therefore, this study is crucial not only for preserving the existence of traditional markets but also for designing a fair, productive, and competitive urban future.

2. Preliminaries or Related Work or Literature Review

2.1 Concept of Traditional Markets

Research on the strategic location of traditional markets cannot be separated from fundamental concepts in economics, urban geography, and regional planning. Traditional markets are places where sellers and buyers meet, usually managed by local governments, selling various basic necessities of the community. In the context of regional development, traditional markets are not only seen as places of economic transactions but also as one of the central nodes of local economic growth. This is emphasized by Milanie (2023), who stated: "Traditional markets function as centers of goods and services distribution and as drivers of the local economy, especially in areas not yet reached by modern economic centers." (Milanie, 2023, p. 5). Therefore, the selection of traditional market locations also reflects the direction of spatial development and functional integration of areas in urban development.

2.2 Strategic Location in Spatial and Economic Contexts

Spatial planning must involve analysis of existing conditions, identification of limiting factors, and optimal selection of economic activity locations. This is in line with the need to determine strategic traditional market locations based on regional potential (Tarigan in Milanie, 2023). The spatial development pattern of Medan City shows a tendency toward the formation of new economic nodes outside the city center, including traditional markets as growth centers (Milanie, 2023). In the context of the six traditional markets in Medan City (Petisah Market, Sukaramai Market, Beruang Market, Ikan Lama Market, Sei Sikambing Market, and Pringgagan Market), theoretical explanations provide a foundation for understanding how spatial and economic factors interact to shape distribution patterns, attractiveness, and market performance, as described below:

(1) Location Theory in the Urban Context, The main foundation for analyzing the strategic location of traditional markets can be traced from location theories widely proposed by economists and geographers. One fundamental theory is the *Central Place Theory* by Walter Christaller, which explains that service centers, including markets, tend to be distributed in a hierarchical pattern at certain distances to serve surrounding populations. In this context, traditional markets can be seen as a form of “central place” that provides goods and services, especially daily necessities, to communities within their spatial reach. Furthermore, the concept of accessibility and connectivity becomes important. Markets with high accessibility—such as being close to main roads, public transport facilities, and densely populated residential areas—tend to attract more visitors. This aligns with the principles of *Urban Spatial Structure*, which emphasize that accessibility and ease of population movement influence preferences and consumption patterns. Thus, geographically strategic market locations contribute to increased visitor numbers, price stability, and efficiency in the distribution chain.

(2) Microeconomic Theory: Markets, Demand, and Supply, From a microeconomic perspective, the market is a mechanism where demand and supply meet to determine prices. In the context of traditional markets, the theory of demand and supply explains that the prices of food commodities, vegetables, fish, and other household needs will depend on the dynamics of availability (supply) and the number of buyers (demand). Strategically located markets tend to have more stable supplies due to easier goods distribution and strong demand due to high visitor numbers. *Market Competition Theory* is also relevant here. The presence of modern retail outlets, supermarkets, and online platforms affects the balance of traditional markets. To remain competitive, traditional markets must rely on spatial advantages such as proximity to consumers, social interaction atmosphere, and diverse commodities at competitive prices. From an economic theory standpoint, a strategic location can become a competitive advantage that is difficult to match by other competitors without territorial proximity to consumers.

(3) Regional Planning and Urban Spatial Planning Theory, The spatial aspect of traditional markets is also related to theories in regional and urban spatial planning. The placement of markets is not merely an economic matter but also part of a sustainable urban development strategy. The *Mixed-Use Development* concept emphasizes that the integration of residential, commercial, and transportation functions within one area can enhance local economic vitality. Traditional markets located near residential centers or other commercial areas can create sufficient synergy to support local economic growth. In the context of Medan City, market location planning must consider population distribution, area growth patterns, and infrastructure development potential. By maintaining traditional markets at strategic points, the city can ensure that food sources and basic necessities remain accessible to various segments of society.

(4) Local Economy and Community Development Theory, The theory of local economy emphasizes the importance of small-scale economic actors, such as small traders and MSMEs, which generally thrive in traditional markets. They form interconnected microeconomic networks, create employment, and maintain the circulation of money at the local level. The more strategic the market location—meaning the easier the access and the stronger its attractiveness—the greater its contribution to local economic stability. Furthermore, this theory highlights the importance of community involvement and social capital. Markets located in areas close to residential communities tend to build strong social relations between sellers and buyers. These social relationships, in turn, can influence consumer loyalty, trust in product quality, and the strengthening of sustainable economies in the area.

(5) Commodity Specialization and Market Diversification Theory, Each of the six markets studied has different characteristics and economic functions. This specialization not only reflects the diversity of commodities offered but also shows market segmentation and spatial

strategies that shape urban community consumption patterns. Traditional markets with unique products, strategic locations, and distinctive social interaction systems tend to survive amid the pressures of modern markets (Rukmana, 2018).

Petisah Market, As the largest and most crowded market in Medan City, Petisah Market offers the most comprehensive commodity diversification, ranging from foodstuffs, clothing, household items, to herbal products. The main advantage of this market lies in the flexibility of product types and the high intensity of visits across social segments. Its location in the business center and close to main transportation routes makes this market a center of popular trade that integrates both formal and informal economic activities.

Pringgán Market, This market is known for its fresh product quality and a variety of regional culinary specialties, such as processed wet foods, traditional cakes, and ready-to-eat dishes. The market's appeal lies in the freshness of goods, social relationships between vendors and regular customers, and a relatively well-organized market environment. Its specialization in fresh food products makes this market a primary destination for household consumers and local culinary business owners.

Sei Sikambing Market, This market specializes in fruits and vegetables, as well as agricultural food products from outside the city. Its proximity to logistics routes and a terminal allows for efficient goods distribution. Other advantages include relatively competitive prices and a stable supply system. This market represents a form of buffer market that directly connects farmers with end consumers.

Sukaramai Market, This market specializes in staple foods and daily necessities, including rice, sugar, cooking oil, and eggs. Although it is smaller in size compared to other markets, Sukaramai Market serves a densely populated residential community nearby, with a high volume of visitors in the morning. The function of this market is more local in nature but still plays an important role in the daily food distribution system.

Beruang Market, This market is classified as a small-scale market with short operating hours, closing by midday. Its specialization lies in the sale of vegetables, spices, and daily cooking ingredients, which are commonly purchased by housewives in the morning. Located in a densely populated residential area, Beruang Market serves as a community market that fulfills micro-level needs without significant intervention from outside traders.

Ikan Lama Market, Although its name refers to seafood, the main commodities of Ikan Lama Market have now shifted to textiles, religious supplies, and Hajj souvenirs. This change reflects a form of thematic specialization, where the market adapts to its location context (Kesawan area, which is close to religious tourism routes) and seasonal consumer needs. Social interaction functions, market management, and traditional buying and selling systems continue to operate, keeping this market relevant within the category of traditional markets undergoing evolution (Compilation Team, 2021).

2.3 SWOT Analysis in Traditional Market Studies

SWOT analysis is a systematic approach used to identify strategic factors in planning and decision-making processes. SWOT stands for Strengths, Weaknesses, Opportunities, and Threats, which are classified into internal and external factors of an entity or region. In regional planning and local economic development research, SWOT is highly relevant for assessing the strategic position of an area, including traditional markets (Milanie, 2023).

In the context of traditional markets in Medan City, SWOT analysis is used to map the potentials and challenges of the six studied traditional markets. Strengths and weaknesses reflect internal conditions such as location, types of commodities, accessibility, and market management. Meanwhile, opportunities and threats include external dynamics such as government policies, the growth of modern retail, and changes in consumer behavior (Rangkuti et al., 2023).

Milanie et al. (2023) and Tarigan et al. (2024) explain that the use of the SWOT model can be an effective tool in formulating development strategies for inclusive urban areas, including in addressing areas with traditional economic functions that are under pressure from modernization. By simultaneously analyzing spatial and economic variables, SWOT helps identify scenarios to strengthen the position of traditional markets amid the pressures of urbanization and digitalization.

Therefore, the SWOT analysis in this study is not only intended to classify market conditions, but also to serve as a strategic foundation in formulating development policies for traditional markets based on local advantages. This approach aligns with the principles of adaptive and equitable regional development, as emphasized in regional and urban planning studies (Rukmana, 2018; Mardiana, 2020).

3. Proposed Method

3.1 Research Location and Time

Medan City is the capital of North Sumatra Province and the third-largest city in Indonesia after Jakarta and Surabaya. The city covers an area of approximately 265.10 km² and consists of 21 districts and 151 sub-districts (BPS Kota Medan, 2023 in Rangkuti et al., 2023). Medan City has relatively complete infrastructure, including main roads, access to land, sea, and air transportation, as well as a well-distributed network of traditional markets. The heterogeneous characteristics of Medan's population in terms of ethnicity and socio-economic background shape diverse consumption patterns, making traditional markets an essential part of the local economic dynamics (Moleong, 2018 in Nuraini, 2024). Its strategic location as a center of trade and services in western Indonesia makes Medan a dynamic hub of economic growth.

Medan City was chosen as the research location because of its complex and dispersed territorial structure, with various centers of local economic activity in each district (Milanie, 2023). This aims to provide a comprehensive overview of the distribution patterns and effectiveness of traditional market locations in serving community needs.

3.2 Methodological Approach

This study employs a mixed methods approach, which combines quantitative and qualitative approaches in a complementary manner. This approach was selected to obtain a comprehensive understanding of the dynamics of traditional markets in Medan City, both from numerical data and the socio-economic context behind it. The spatial approach in this study is based on the concept of regional development, which emphasizes the importance of the location of economic centers in promoting urban area integration (Milanie, 2023). Through this approach, the strategic locations of markets are analyzed in relation to their economic performance and social roles within the city structure.

Quantitatively, this study applies a systematic approach to test hypotheses through the collection and analysis of numerical data (Rumengan, Khaddafi, & Milanie, 2015). Quantitative data are obtained through the distribution of Likert-scale questionnaires to buyers and sellers in six traditional markets, aiming to measure factors of strategic market location and their relation to market economic performance variables. Meanwhile, the qualitative approach is used to strengthen and enrich the understanding of the quantitative results through field observations, structured and semi-structured interviews, and visual documentation of the activities and conditions of the six observed traditional markets. This approach enables the researcher to capture the social context, interaction patterns, and operational rhythms of markets in greater depth, especially in the post-pandemic context.

As part of the qualitative approach, this study also utilizes SWOT analysis to identify internal and external factors that influence the existence and development of traditional markets. Internal factors include strengths and weaknesses (such as location, physical condition, and social interaction), while external factors encompass opportunities and threats (e.g., revitalization policies and competition from modern retail). This SWOT analysis is based on observations, interviews, and processed quantitative data and aims to formulate development strategies for traditional markets in a contextual and data-driven manner.

By using this mixed methods approach, the research is expected to provide more comprehensive results, both in measurable findings and in-depth understanding of the socio-economic dynamics of traditional markets in Medan City.

The research was conducted from November 2024 to March 2025, focusing on field observations, questionnaire distribution to visitors and traders, and visual documentation of six traditional markets in Medan City. This time frame was chosen based on the need for up-to-date data and contextual relevance in the post-pandemic situation, as well as to ensure sufficient time for data processing and comprehensive report writing before the thesis defense scheduled for mid-2025. The choice of time between the end of the year and the beginning of the next is also considered appropriate, as it includes a period of stable market activity, including during major religious holidays and increased household consumption. This strengthens the validity of the data obtained, as it reflects market economic dynamics under normal conditions. In line with Sugiyono (2017), the timing of the research needs to be adjusted to the data needs and availability of empirical information to ensure academically reliable results.

The research location covers six predetermined traditional markets in Medan City: (1) Pasar Petisah, (2) Pasar Sukaramai, (3) Pasar Beruang, (4) Pasar Ikan Lama, (5) Pasar Sei Sikambing, and (6) Pasar Pringgagan.

The research subjects are:

(1) Respondents: Buyers and traders in each market. (2) To ensure representation, the number of respondents is set at ± 30 people per market, consisting of ± 20 buyers and ± 10 traders. Thus, the total number of respondents for the six markets is ± 180 (120 buyers and 60 traders). Respondents are selected using non-probability sampling (accidental or purposive sampling), considering that selected respondents are those actively engaged in market activities during the research period. This approach is chosen due to time constraints, field conditions, and practical considerations.

To enhance understanding of the operations of the studied traditional markets, opening and closing times of each market were recorded based on field observations and information from traders. This information is important to understand the duration of daily economic activity and to observe operational rhythms that affect transaction volumes and social interactions in the markets.

The following table presents the operational hours of the six traditional markets observed in this study:

Table 1. Operational Hours of the Research Markets.

No	Market Name	Opening Time	Closing Time	Operational Days
1	Pasar Petisah	06:00	18:00	Monday – Sunday
2	Pasar Pringgagan	06:00	18:00	Monday – Sunday
3	Pasar Sei Sikambing	06:00	18:00	Monday – Sunday
4	Pasar Sukaramai	06:00	18:00	Monday – Sunday
5	Pasar Beruang	09:00	12:00	Monday – Sunday
6	Pasar Ikan Lama	08:00	17:00	Monday – Saturday

Source: Author's Survey, 2025

Pasar Beruang has the shortest operational hours, indicating its role as a daily community market that functions only in the morning. Meanwhile, markets such as Petisah and Pringgagan operate until the late afternoon due to the diversity of commodities and high visitor intensity. Pasar Ikan Lama also has limited opening hours on weekdays, as most of its buyers come at specific times, especially ahead of the Hajj season or major religious holidays. These operational durations directly influence the frequency of visits and the distribution of goods, and therefore must be considered when evaluating the market's economic performance. According to Rangkuti et al. (2023), operational hours that align with community needs are one of the key determinants of traditional markets' sustainability in the competition within modern urban spaces.

3.3 Research Variables

Based on the objectives and theoretical foundation, this study focuses on analyzing the relationship between the independent variable (X), which represents the aspect of "Strategic Market Location," and the dependent variable (Y), which reflects the "Market Economic Performance" (market attractiveness and economic sustainability). Each variable has indicators established through literature review and field observations.

3.3.1 Independent Variable (X) – Strategic Location Factors:

X1: Market Accessibility. Accessibility is an essential factor in assessing the strategic location of traditional markets, as it affects the ease of consumer access, visitor volume, and the smooth distribution of goods (Christaller, 1933; Mulyadi, 2018). Easily accessible markets tend to have stable visitor flows, which ultimately impact the market's economic performance directly. The indicators used include: (a) Proximity to residential areas and main roads – The closer a market is to densely populated areas and main city roads, the higher the potential consumer reach. (b) Availability of public transportation – Measured by the presence of minibus routes, bus stops, or terminals connected to the market location. (c) Accessibility for private vehicles & parking areas – Considering the availability of two-/four-wheeled parking spaces and visitor mobility. (d) Road condition leading to the market – Road quality, width, and traffic flow as key factors determining comfort and travel time efficiency. Measuring

Instrument: A Likert scale questionnaire (1–5) is used to measure respondents' perceptions regarding accessibility to the market based on the four indicators above.

X2: Commodity Diversity. Commodity diversity reflects how well a traditional market can meet various consumer needs. According to Tarigan (in Milanie, 2023), the completeness of product types is a key indicator of market attractiveness and contribution to the local economy. The indicators used include: (a) Variety of goods – Availability of a wide range of commodities, from basic needs and fresh food to clothing and household items. (b) Consistent availability of staple goods – Primary goods available daily without supply disruptions. (c) Commodity quality – Measured by the freshness of products (food), material feasibility, and consumer perception of product durability. Measuring Instrument: A Likert scale questionnaire (1–5) is used to assess buyers' evaluation of product completeness and quality in each market.

X3: Market Environment and Comfort. A well-organized and comfortable market environment influences visitor satisfaction, lengthens visit duration, and encourages repeat purchases (Milanie, 2021). This factor greatly affects customer loyalty and market image. The indicators used include: (a) Market cleanliness level – Including floor cleanliness, sales areas, drainage, and waste bins. (b) Kiosk and vendor arrangement – A neat vendor layout provides safety and easy navigation for buyers. (c) Market security – Availability of security personnel, sufficient lighting, and low crime risk. (d) Social atmosphere and interaction – The social value of the market is seen through vendor friendliness, courteous service, and overall familiarity. Measuring Instrument: A Likert scale questionnaire (1–5) is used to measure perceptions of comfort, security, and physical environment of the market.

3.3.2 Dependent Variable (Y) – Market Economic Performance (Attractiveness):

Y : Market Economic Performance. Market economic performance is measured by the extent to which the market can attract regular visitors, maintain price stability, and support sustainable transaction volumes. This variable represents the success of traditional markets as nodes of local micro-economies (Mulyadi, 2018; Nuraini, 2023). The indicators used include: (a) Number of buyer visits – Measured by the frequency of visits to the market within a week or month. (b) Shopping frequency and loyalty – Repeat visits as an expression of satisfaction and trust in the market. (c) Commodity price stability – Consistency in the prices of goods, especially basic necessities, over a given period. (d) Vendor sales volume – Estimated daily transaction volume as reported by vendors, either in units of goods or sales value. Measuring Instruments include: (a) Buyer questionnaire: visit frequency, price perception, and product satisfaction. (b) Vendor questionnaire: estimated daily transactions, price stability, and perception of consumer purchasing power.

3.4 Data Collection Techniques & Data Analysis Techniques

Data Collection Techniques are carried out through field observations to examine market conditions and social interactions, structured questionnaires administered to vendors and buyers, as well as guided brief interviews to explore preferences and perceptions toward the market.

Data Analysis Techniques include descriptive analysis of Likert scale data, correlation or linear regression tests (where applicable) to assess the relationship between strategic location and market performance, qualitative analysis from observations and interviews to reinforce quantitative findings, and SWOT analysis to identify strengths, weaknesses, opportunities, and threats as a basis for developing traditional market strategies.

3.5 Conceptual Framework of the Research

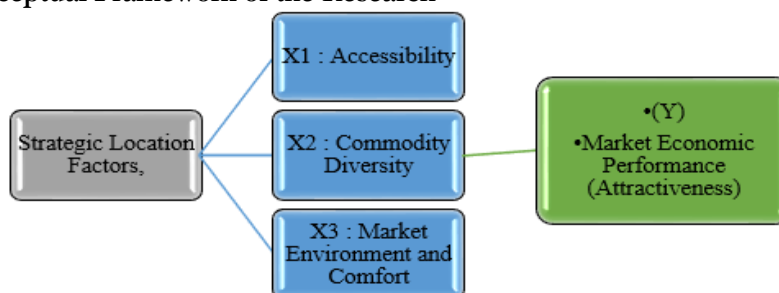


Figure 1. Conceptual Framework of the Research.

Source: Author's Design, 2024

The figure above explains that market economic performance (Y) is influenced by spatial conditions and local economic factors represented by accessibility, commodity diversity, and market environment (X1, X2, X3). A strategic location is reflected by ease of access, completeness of commodities, and environmental comfort, which ultimately increase the attractiveness and economic performance of traditional markets. The following is the flow of the research process:

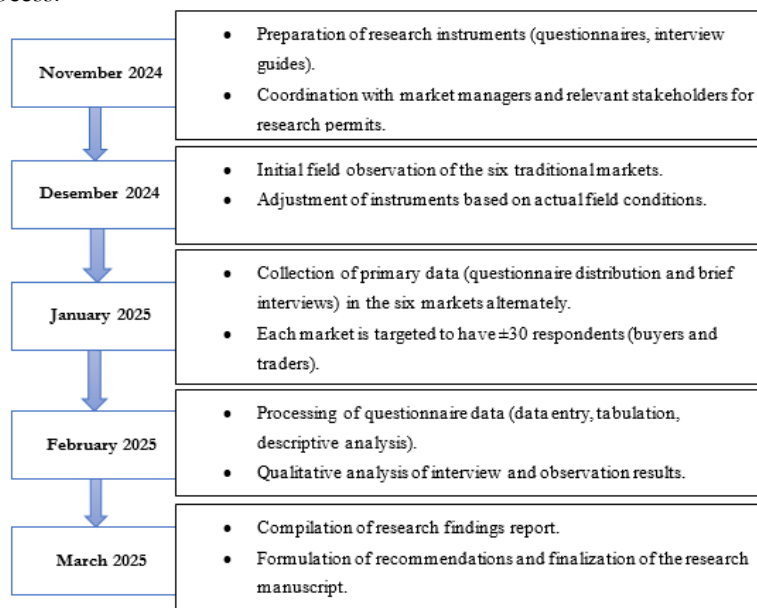


Figure 2. Research Process Flow.
Source: Author's Design, 2025

4. Results and Discussion

4.1 Research Findings

This section presents the results of primary data collection and analysis conducted from January to March 2025. Data were collected from six traditional markets in Medan City: Pasar Petisah, Pasar Sukaramai, Pasar Beruang, Pasar Ikan Lama, Pasar Sei Sikambing, and Pasar Pringgagan. A total of 180 respondents participated in this study, consisting of 30 respondents from each market, with 20 buyers and 10 traders per market (a total of 120 buyers and 60 traders).

This study used three independent variables (X) that describe aspects of strategic location, namely: (a) X1: Market Accessibility. (b) X2: Commodity Diversity. (c) X3: Market Environment & Comfort

And one dependent variable (Y), representing the economic performance of the market (market attractiveness), measured by the number of visitors, buyer loyalty, price stability, and sales volume.

Data collection was carried out through direct field observation, distribution of structured questionnaires, and guided interviews. Observations aimed to examine the physical condition of the markets, entry-exit access, layout, transportation facilities, and the social interaction patterns between traders and buyers. The questionnaires used a Likert scale of 1–5, where a score of 1 indicated the lowest perception (strongly disagree or very poor), and a score of 5 indicated the highest perception (strongly agree or very good). These instruments were distributed directly to respondents to systematically collect quantitative data. In addition, guided interviews were conducted with selected respondents, especially traders, to explore deeper insights related to logistics, supply chains, and consumer purchasing habits.

The data analysis was carried out in stages. Quantitative data obtained from the questionnaires were analyzed descriptively by calculating the mean, standard deviation, and response distribution. To identify relationships between variables, simple correlation analysis was conducted between X1, X2, X3, and Y. These quantitative results were further enriched through qualitative analysis based on field observations and interviews. In addition, a SWOT analysis was used to identify internal factors (strengths and weaknesses), such as market location, infrastructure conditions, and the quality of social interaction; and external factors (op-

portunities and threats), such as government policies regarding market revitalization and competition with modern markets. All these findings served as the basis for formulating development strategies for traditional markets in alignment with local characteristics.

4.2 Descriptive Results of Each Variable per Market

The table below presents the average (mean) respondent perception scores for each market. The values in parentheses indicate the standard deviation (SD). All scores are based on a Likert scale of 1–5. The tabulation of the analysis results is as follows:

Table 2. Research Variable Tabulation.

Variable	Main Indicator	Mean	SD	Interpretation
X1 (Market Accessibility)	Ease of Transportation	4.2	0.6	Good, responses relatively homogeneous
	Proximity to Residential Areas	4.0	0.5	Good, majority agree
	Road Infrastructure Condition	3.9	0.7	Fairly Good, slight variation in opinions
Average X1		4	0,6	Good
X2 (Commodity Diversity)	Variety of Goods	4.3	0.5	Good–Very Good, responses fairly homogeneous
	Product Quality	4.1	0.6	Good, majority positive perception
	Availability of Basic Goods	4.4	0.4	Very Good, minimal variation
Average X2		4,3	0,5	Good–Very Good
X3 (Environment & Comfort)	Market Cleanliness	3.8	0.7	Fairly Good, but with varied opinions
	Security & Stall Arrangement	3.9	0.8	Fairly Good, somewhat diverse perceptions
	Social Interaction Atmosphere	4.0	0.6	Good, majority view it positively
Average X3		3,9	0,7	Fairly Good to Good
Y (Market Economic Performance)	Number of Visitors	4.1	0.6	Good, relatively little opinion difference
	Buyer Loyalty	4.0	0.5	Good, majority share similar views
	Price Stability & Sales Volume	4.2	0.5	Good, positive and homogeneous perception
Average Y		4,1	0,5	Good, predominantly positive perception

Source: Author's Analysis, 2025

Explanation:

- **Score 1** = Strongly Disagree / Very Poor
- **Score 5** = Strongly Agree / Very Good
- **Mean >4.0** indicates respondents' perceptions tend to be positive.
- **Small SD (<0.7)** means most responses are relatively uniform.
- **Larger SD (≥ 0.7)** indicates greater variation in responses.

Table 3. Average Respondent Perception on Research Variables per Market.

Market	Accessibility (X1)	Commodity Diversity (X2)	Environment & Comfort (X3)	Market Economic Performance (Y)
Petisah	4.2 (± 0.6)	4.5 (± 0.5)	4.0 (± 0.7)	4.3 (± 0.5)
Sukaramai	3.8 (± 0.7)	4.0 (± 0.6)	3.7 (± 0.8)	3.9 (± 0.6)
Beruang	3.5 (± 0.8)	3.8 (± 0.7)	3.4 (± 0.8)	3.6 (± 0.7)
Ikan Lama	4.0 (± 0.6)	4.2 (± 0.5)	3.9 (± 0.6)	4.1 (± 0.5)
Sei Sikambing	3.9 (± 0.7)	4.1 (± 0.6)	3.8 (± 0.7)	4.0 (± 0.6)
Pringgagan	4.1 (± 0.6)	4.3 (± 0.4)	4.1 (± 0.5)	4.2 (± 0.4)

Source: Author's Analysis, 2025

The table above is further elaborated as follows: (1) Petisah Market: Accessibility (X1): A score of 4.2 indicates that the majority of respondents consider Petisah Market easy to access. The standard deviation of 0.6 suggests relatively homogeneous perceptions (not highly varied). The market's location in the city center, proximity to public transportation, and closeness to densely populated residential areas are the main factors contributing to the high score; Commodity Diversity (X2): With a score of 4.5, this is one of the highest values among all markets, indicating that Petisah Market is perceived to offer a very wide selection of commodities—from fresh food, clothing, to household needs. The SD of 0.5 shows a high degree of consistency in responses; nearly all respondents believe that the product variety is very adequate; Environment & Comfort (X3): The score of 4.0 places Petisah Market in the “good” category. The SD of 0.7 is slightly higher than the other variables in this market, indicating that some respondents feel the market is fairly comfortable, while others may think improvement is still needed (for example, in terms of cleanliness or kiosk layout); Market Economic Performance (Y): The average score of 4.3 (± 0.5) indicates that the market's attractiveness, visitor numbers, and sales volume are considered high. The relatively low standard deviation (0.5) shows that respondents' views are mostly aligned in assessing Petisah Market as a market with strong economic performance. Overall, Petisah Market excels in the commodity diversity aspect (X2), which is very high, and in market economic performance (Y), which is good. This makes Petisah Market one of the markets with the most positive perception in Medan City.

(2) Sukaramai Market: Accessibility (X1): The score of 3.8 (± 0.7) falls within the range of “fairly good” to “good.” Some respondents view the market's location as strategic for local residents, but the variation in responses (SD 0.7) also indicates that some feel road access and public transportation still need improvement; Commodity Diversity (X2): The score of 4.0 (± 0.6) shows a positive perception—Sukaramai Market is considered to provide a fairly complete range of staple needs. Although not as high as Petisah Market, it is still deemed adequate for daily necessities; Environment & Comfort (X3): The score of 3.7 (± 0.8) indicates a more varied assessment. Some respondents believe the market is clean and comfortable, but others feel it needs better organization, especially in entrance areas that are narrow or in the arrangement of vendor stalls; Market Economic Performance (Y): With a mean of 3.9 (± 0.6), this market is considered fairly successful in attracting visitors, although still below Petisah Market. The level of buyer loyalty is also reasonably good, although not as strong as markets with scores above 4.0. Located in a densely populated area, this market benefits from nearby community access. However, comfort and spatial arrangement remain challenges that need to be improved in order to increase scores in variable X3 and overall economic performance.

(3) Beruang Market: Accessibility (X1): A score of 3.5 indicates an assessment leaning toward “fair” to “fairly good.” The relatively high SD of 0.8 signifies significant variation in opinions: some respondents believe the market location is still reachable, while others rate the road conditions or transportation to the market as suboptimal; Commodity Diversity

(X2): A score of 3.8 places this market in the “moderately diverse” category. Not as strong as Petisah or Pringgana, but still able to meet the daily basic needs of surrounding residents; Environment & Comfort (X3): This is the lowest-scoring variable (3.4) in Beruang Market. The SD of 0.8 again indicates considerable disparity in assessments, showing that improvements in cleanliness, stall arrangement, and market security remain important concerns; Market Economic Performance (Y): A score of 3.6 (± 0.7) is categorized as moderate. Buyer visits may be stable, but not optimal. Buyer loyalty is not as high as in leading markets, likely due to the less optimal environmental/comfort factors. In general, Beruang Market still falls into the moderate category for each variable. Its economic performance is also not as good as other markets because accessibility, commodity diversity, and market comfort have not yet reached optimal levels.

(4) Ikan Lama Market: Accessibility (X1): A score of 4.0 indicates that the majority of respondents rate this market as having “good” access. Proximity to residential areas and main roads around Kesawan is a strong point. The SD of 0.6 indicates relatively uniform perception; Commodity Diversity (X2): A score of 4.2 (± 0.5) confirms that Ikan Lama Market offers a wide range of commodities, especially textiles, Hajj souvenirs, and religious supplies. This variety makes the market stand out in variable X2; Environment & Comfort (X3): A score of 3.9 (± 0.6) shows that the market is considered fairly comfortable, though there is still room for improvement. However, perceptions of facilities and security are already relatively good; Market Economic Performance (Y): A score of 4.1 (± 0.5) indicates “good” economic performance. The high specialization in commodities positively impacts the market’s appeal, stimulating high sales volume and fairly strong consumer loyalty. The main strength of Ikan Lama Market lies in the diversity of its current key commodities, which have shifted to textiles, religious supplies, and Hajj souvenirs. This factor contributes to strong economic performance even though cleanliness remains a challenge.

(5) Sei Sikambang Market: Accessibility (X1): A score of 3.9 (± 0.7) falls within the “fairly good” to “good” range. The SD of 0.7 indicates that most respondents agree the market is fairly accessible, although some may feel public transport facilities still need improvement; Commodity Diversity (X2): A score of 4.1 indicates the market provides a variety of food items and household necessities that are fairly complete, appealing to consumers in the Medan Helvetia area and surroundings; Environment & Comfort (X3): A score of 3.8 (± 0.7) reflects relatively positive perceptions, although there are still areas needing improvement, such as vendor arrangement to avoid disrupting traffic flow or creating more adequate parking areas; Market Economic Performance (Y): A score of 4.0 (± 0.6) is considered good, close to Ikan Lama Market (4.1). This reflects a stable number of visitors and relatively smooth sales. This market has fairly good accessibility and satisfactory commodity diversity. If comfort aspects (cleanliness, security) are strengthened, its economic performance could increase further.

(6) Pringgana Market: Accessibility (X1): A score of 4.1 (± 0.6) indicates that most respondents find this market easily accessible, both in terms of location and transport. The relatively low variation in answers shows most respondents share a similar opinion; Commodity Diversity (X2): With a score of 4.3 (± 0.4), Pringgana Market shows strength in the completeness of commodity types and product quality. The low SD of 0.4 illustrates that respondents’ perceptions are nearly identical—that this market has very adequate stock; Environment & Comfort (X3): A score of 4.1 (± 0.5) falls in the “good” category. Pringgana Market is considered clean, orderly, and comfortable for shopping. Although there are minor notes (e.g., parking arrangement), overall the market is viewed as having good environmental management; Market Economic Performance (Y): A score of 4.2 (± 0.4) places Pringgana Market at the top in terms of economic performance. The low standard deviation shows that nearly all respondents agree that this market is busy, trusted by buyers, and has a high volume of sales. Along with Petisah Market, Pringgana stands out across all variables (X1, X2, X3). This correlates with its very good economic performance, making it one of the traditional markets with the highest appeal in Medan City.

4.3 Correlation Analysis

To examine the relationship between strategic location factors and market economic performance, a simple correlation test (Pearson) was conducted. The correlation coefficient (r) is interpreted as follows:

- 0.00 – 0.20 = Very weak relationship
- 0.21 – 0.40 = Weak relationship
- 0.41 – 0.60 = Moderate relationship
- 0.61 – 0.80 = Strong relationship

0.81 – 1.00 = Very strong relationship

Table 4. Correlation between Variables X1, X2, X3 and Y.

Variable	Accessibility (X1)	Commodity Diversity (X2)	Environment & Comfort (X3)	Market Economic Performance (Y)
X1 (Accessibility)	1	0.38*	0.42*	0.52**
X2 (Commodity Diversity)	0.38*	1	0.39*	0.61**
X3 (Environment & Comfort)	0.42*	0.39*	1	0.58**
Y (Economic Performance)	0.52**	0.61**	0.58**	1

Source: SPSS, 2025

Notes (according to general convention):

- * $p < 0.05$ (significant at the 5% level)
 - ** $p < 0.01$ (significant at the 1% level)
- a. Correlation between X1 (Accessibility) and Y (Economic Performance)
Correlation coefficient $r = 0.52$ ($p < 0.01$)

The value of 0.52 indicates a moderate-to-strong relationship between market accessibility and economic performance. This means that the better the transportation access, proximity of the market to residential areas, and ease for buyers to reach the market location, the higher the market performance (e.g., number of visitors, sales volume, and customer loyalty). Although the influence is not as strong as that of other variables such as commodity diversity, the effect of accessibility remains significant and should not be overlooked.

- b. Correlation between X2 (Commodity Diversity) and Y (Economic Performance)
Correlation coefficient $r = 0.61$ ($p < 0.01$)

This is the highest correlation value among the independent variables, indicating that commodity diversity has the strongest relationship with market economic performance. This means that markets offering a wide variety of goods (vegetables, fruits, meat, fish, basic needs, clothing, and household tools) tend to attract more consumers, leading to increased shopping frequency, satisfaction, and loyalty. This finding supports the assumption that the adequacy and variety of commodities are key success factors for traditional markets in facing competition from modern retail.

- c. Correlation between X3 (Environment & Comfort) and Y (Economic Performance)
Correlation coefficient $r = 0.58$ ($p < 0.01$)

A clean, safe, and socially comfortable environment is positively and significantly correlated with economic performance, although slightly lower than commodity diversity. The more comfortable consumers feel in the market—in terms of cleanliness, order, safety, and friendliness of traders—the higher the chances for the market to increase transaction volume, attract new visitors, and maintain buyer loyalty.

- d. Correlation Among Independent Variables (X1, X2, X3)

There are positive but relatively lower correlation coefficients (ranging from 0.38 to 0.42) among X1, X2, and X3.

X1 and X2 ($r = 0.38$)*: Indicates that markets with good accessibility tend to also offer diverse commodities, although the strength is not very high. This may be due to better infrastructure and transportation, which facilitate the distribution of goods, resulting in greater commodity variety.

X1 and X3 ($r = 0.42$)*: Markets with good accessibility tend to receive more attention from the government or market managers regarding cleanliness and environmental arrangement. However, the correlation is only moderate, meaning that easily accessible markets are not necessarily comfortable, and vice versa.

X2 and X3 ($r = 0.39$)*: Markets with diverse commodities often also consider visitor comfort, but the effect is not always dominant. In other words, a well-stocked market is not always the cleanest or most orderly one; this depends on market management or support from stakeholders.

4.4 Variable Interrelation

The relationship between Commodity Diversity (X2) and Environment & Comfort (X3) shows a positive correlation of 0.39. This indicates that markets with better commodity variety also tend to offer a more comfortable environment. For example, markets that provide high-quality goods are often more organized and have better environmental management. Conversely, if a market does not prioritize commodity diversity, attention to cleanliness or spatial layout tends to be lacking. This interaction suggests that strategies to improve commodity richness must be balanced with proper market environment management to enhance overall attractiveness.

The relationship between Accessibility (X1) and Environment & Comfort (X3) ($r = 0.42$) reflects that easily accessible markets tend to pay more attention to cleanliness. Markets with good public transport access and adequate road connections are often more frequently visited, which forces market managers to maintain a clean and orderly environment. However, the results also indicate that good accessibility alone is insufficient without supporting infrastructure to ensure comfort.

Based on the analysis and interpretation previously presented, among the six studied markets (Pasar Petisah, Pasar Sukaramai, Pasar Beruang, Pasar Ikan Lama, Pasar Sei Sikambing, and Pasar Pringgagan), there are three markets that consistently show higher variable scores: Pasar Petisah, Pasar Ikan Lama, and Pasar Pringgagan. These markets have relatively higher average scores in terms of accessibility (X1), commodity diversity (X2), and environment & comfort (X3), ultimately resulting in better economic performance (Y).

In other words, they are closer to the criteria of a “strategic location” as intended in the research title and objectives, which aim to connect spatial factors (strategic location) with economic aspects (market attractiveness and performance). The markets that best represent strategic locations are Pasar Petisah, Pasar Ikan Lama, and Pasar Pringgagan. These three markets demonstrate how accessible locations, comprehensive commodity offerings, and comfortable environments can drive stronger economic performance. Among the three, Pasar Petisah and Pasar Pringgagan frequently emerge as markets with excellent ratings across almost all indicators, thus they can be considered the most representative of the interrelation between strategic location factors and the economic performance of traditional markets in Medan City.

4.5 Discussion

The research findings indicate that the factors associated with the strategic location of traditional markets—namely accessibility (X1), commodity diversity (X2), and environment & comfort (X3)—have a positive relationship with market economic performance (Y). The tabulated results show that among the six studied markets—Pasar Petisah, Pasar Sukaramai, Pasar Beruang, Pasar Ikan Lama, Pasar Sei Sikambing, and Pasar Pringgagan—Pasar Petisah, Pasar Ikan Lama, and Pasar Pringgagan recorded relatively higher scores across the three independent variables (X1, X2, X3) and also on economic performance (Y).

4.5.1 Relevance to the Research Title and Objectives

The research title focuses on “Strategic Location of Traditional Markets in Medan City: A Spatial and Economic Approach.” These findings show that the three markets (Petalisah, Ikan Lama, and Pringgagan) better align with the criteria of a “strategic location” as defined in the study, where ease of access, sufficient commodity variety, and a comfortable environment are reflected in high mean scores. This aligns with the research objective of understanding how spatial and economic aspects are interconnected in determining market performance. Thus, these three markets empirically support the hypothesis that spatial factors and the economic conditions of traditional markets influence one another.

4.5.2 Accessibility (X1):

Pasar Petisah, Ikan Lama, and Pringgagan have good transportation access, are close to dense residential areas, and are easily reachable by buyers. Although the impact of accessibility on economic performance (Y) is at a moderate level, this variable remains important as it facilitates visitor flow and goods distribution. This finding is consistent with studies by Hermawan (2021) and Priyono (2022), who emphasize that accessible transportation and infrastructure support high buyer traffic in traditional markets.

4.5.3 Commodity Diversity (X2):

Commodity diversity emerged as the variable with the strongest correlation to market economic performance. Pasar Petisah and Pringgagan, for instance, are known for their wide range of products—from fresh food and spices to processed goods. This condition boosts consumer loyalty and traders' sales volume. Similar results were reported by Rachmawati et al. (2020) and Sari & Nugroho (2021), who found that complete commodity offerings increase buyer satisfaction and loyalty. An international study by Chen & Lin (2019) also supports this finding, stating that markets with a rich selection of goods can maintain their competitive edge amid the rise of modern retail.

4.5.4 Environment & Comfort (X3):

Clean, safe, and well-organized market environments, along with positive social interaction, show a significant relationship with economic performance. This is evident in Pasar Pringgagan and Pasar Petisah, which were highlighted for having a more comfortable shopping atmosphere. Research by Setiawan & Putri (2019) and Mardiana (2020) at the national level, as well as Gómez & Gonzales (2021) internationally, confirm that cleanliness, safety, and market environment comfort play a vital role in driving consumer satisfaction and loyalty.

4.5.5 Alignment with Theoretical Framework and Previous Research

Overall, the findings of this study support the concepts in the Central Place Theory (Christaller) and microeconomic theory, which emphasize the importance of location, accessibility, and commodity variety for the economic sustainability of traditional markets. These results directly align with the research objective of understanding the spatial and economic relationship in determining the appeal of traditional markets. The findings also reinforce the hypothesis that markets with strategic location planning—combining ease of access, commodity fulfillment, and a comfortable environment—tend to demonstrate stronger performance.

This is consistent with location theory (Central Place Theory), which states that accessibility and reachability significantly influence the attractiveness of service centers.

Studies by Yulianti (2018) and Sari & Nugroho (2021) show that markets capable of adapting to modern urban environments while maintaining their traditional character can remain competitive in the era of globalization. Likewise, Priyono (2022) and Mardiana (2020) emphasize the importance of spatial planning that integrates commercial functions with urban infrastructure.

Other research, such as Setiawan & Putri (2019), also highlights accessibility and comfort as key determinants of a market's competitiveness. International support for this perspective is found in Chen & Lin (2019), who demonstrate that strategically located markets in Southeast Asian cities can attract local consumers. Similarly, Gómez & Gonzales (2021), in the context of Latin America, emphasize that traditional markets with effective spatial distribution and a comfortable environment can create long-term economic sustainability.

4.5.6 SWOT Analysis of Traditional Markets in Medan City

A SWOT analysis was conducted as a strategic synthesis step based on all observations, interviews, and quantitative data analysis presented in the previous sections. Using the SWOT approach, this research evaluates internal and external factors that influence the sustainability and development of traditional markets in Medan City.

Internal factors include strengths and weaknesses originating from the physical condition of the market, the quality of commodities, and the social interactions between traders and buyers. External factors involve opportunities and threats from the external environment, such as government policies, consumer trends, and competition from modern retail and digital platforms.

This approach refers to studies by Milanie (2023) and Tarigan et al. (2024), who emphasize the importance of context-based strategic analysis in strengthening traditional economic hubs. The results of this analysis will serve as a foundation for formulating development strategies that are adaptive, inclusive, and long-term competitive. The SWOT analysis table is presented below:

Table 5. SWOT Analysis of Traditional Markets in Medan City.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Strategic location within densely populated residential areas • High accessibility (via public transport and private vehicles) • Diverse range of local and seasonal commodities 	<ul style="list-style-type: none"> • Suboptimal sanitation and cleanliness facilities • Unstandardized kiosk layout causing disorganization • Operating hours are not flexible for modern consumers

<ul style="list-style-type: none"> • Friendly social interactions rooted in local culture 	<ul style="list-style-type: none"> • Lack of promotion and digital information systems
Opportunities	Threats
<ul style="list-style-type: none"> • Government support for market revitalization programs • Potential for markets to become local tourist destinations • Empowerment of MSMEs and the creative economy • Increased consumer awareness of fresh and local products 	<ul style="list-style-type: none"> • Competition from modern shopping centers and e-commerce • Shift in lifestyle toward fast and instant shopping • Minimal integration with digital platforms and online marketing • Market homogenization trend due to urbanization

Source: Author's Analysis, 2025

Based on the table above, it can be seen that traditional markets in Medan City possess several internal strengths worth maintaining, such as their strategic locations, high accessibility, and the wide variety of commodities offered. In addition, the strong social interactions between traders and consumers help create a unique atmosphere deeply rooted in local culture—an added value that distinguishes traditional markets from modern retail centers.

However, there are also notable internal weaknesses that hinder the optimal function of these markets, including inadequate sanitation and cleanliness, disorganized kiosk arrangements due to a lack of standardization, and limited operating hours that do not yet align with the needs of urban consumers. The lack of digital media use for promotion and information sharing is also a significant drawback that could weaken the competitiveness of traditional markets in today's technology-driven era.

Amid these challenges, there are considerable opportunities to be seized. These include government policy support for market revitalization, the potential for markets to be developed as part of local tourism destinations, and growing consumer awareness about the importance of fresh and locally sourced products. These opportunities can serve as momentum to strengthen traditional markets' position as a vital node in the people's economy that remains relevant in a modern context.

Nonetheless, traditional markets continue to face external threats, such as the dominance of modern retail outlets and online shopping platforms that offer speed, convenience, and easy access. The shifting lifestyle trends favoring practical and efficient shopping pose a serious challenge to the sustainability of traditional markets. Therefore, without adaptive and innovative efforts, these external threats may lead to declining consumer interest and the potential marginalization of traditional markets within the urban economic structure.

5. Conclusions

Based on the findings of this study, it can be concluded that the strategic location of traditional markets in Medan City—as reflected in accessibility, commodity diversity, and the quality of the market environment and comfort—has a positive and significant relationship with economic performance. Petisah Market, Ikan Lama Market, and Pringgagan Market were identified as the markets with the highest scores across these three variables, which translated into stronger economic performance. In other words, markets that are easily accessible to consumers, offer a diverse range of quality goods, and provide a safe and comfortable shopping atmosphere tend to attract more visitors, maintain stable sales volumes, and foster consumer loyalty.

This research highlights the crucial role of location in supporting the economic performance of traditional markets amid modern retail competition and shifting consumer shopping behavior. Therefore, to enhance the competitiveness of traditional markets, strategic efforts are required, such as improving access infrastructure, enhancing the quality of public facilities, and diversifying and fulfilling commodity offerings in line with consumer needs. Encouraging MSME participation in providing innovative products, maintaining product quality, and creating a clean and well-organized shopping environment are also significant supporting factors.

Moreover, developing traditional markets as cultural and culinary tourism destinations can serve as a long-term strategy. This can be achieved by introducing thematic activities such as market festivals, educational programs about traditional shopping culture, and the promo-

tion of flagship products. The integration of technology—such as digitalizing market information through online platforms or local apps—becomes a key element to maintain the relevance of markets in the modern era.

To support these strategies, a SWOT analysis was conducted, which revealed that traditional markets in Medan City possess major internal strengths, such as strategic location and unique social interaction. However, they also face internal weaknesses, particularly in terms of facilities and management. Opportunities such as market revitalization, local cultural promotion, and growing consumer awareness of fresh products can be leveraged to enhance market appeal. On the other hand, threats from modern retail and digital platforms must be anticipated through innovation and the adaptation of management systems. Hence, the sustainability of traditional markets can only be realized if internal strengths are reinforced and external opportunities are effectively utilized in a consistent and responsive manner to urban dynamics.

Based on the findings and conclusions above, several recommendations can be proposed as follows: (1) The local government, particularly the Medan City Trade Department, is advised to expand both physical and managerial revitalization programs for traditional markets, prioritizing improvements in cleanliness, lighting, and the arrangement of trading spaces that are efficient and consumer-friendly. (2) Market managers are expected to begin implementing simple digital information systems, such as electronic price boards, promotional calendars, and kiosk maps, which can be accessed online or through locally developed applications. (3) Business actors and market traders should be continuously empowered through training in customer service, product quality, and the use of social media for promotion, in order to reach younger consumers who are increasingly engaged with digital marketplaces. (4) Further research is recommended to develop the SWOT model into implementable strategies based on the SWOT matrix (SO, WO, ST, WT), so that research findings can be translated into practical, sustainable, and participatory policies. Through collaborative efforts between the government, market managers, and business actors, traditional markets in Medan City can not only survive but also grow into strong, character-rich local economic centers that are adaptive to the challenges of the times.

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