

SEMIOTIC LANDSCAPES OF DELI SERDANG TRADITIONAL MARKETS: LINGUISTIC, VISUAL, MATERIAL, AND SPATIAL EXPRESSIONS OF CULTURAL IDENTITY AND LOCAL WISDOM

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Article Info	Abstract
Article History Received: February 2026 Revised: June 2026 Accepted: August 2026 Published: October 2026	<i>Traditional markets represent important cultural semiotic spaces where linguistic, visual, material, and spatial signs reflect social interaction, cultural identity, and local wisdom within community life. This study aims to examine the semiotic landscapes of traditional markets in Deli Serdang, Indonesia, focusing on how multimodal signs express and negotiate cultural identity and local wisdom. The study employed a qualitative semiotic approach grounded in Scollon and Scollon's geosemiotics and Kress and van Leeuwen's multimodal theory. The research was conducted in selected traditional markets in Deli Serdang Regency, North Sumatra, involving traders, buyers, and market administrators as participants. Data were collected through visual documentation, participant observation, in-depth interviews, and field notes. The analysis focused on market signage, vendor–customer interactions, spatial arrangements, and culturally significant artefacts. The findings reveal that traditional markets function not only as economic and communicative spaces but also as cultural texts that encode communal values such as reciprocity, mutual trust, and social cohesion. Identity negotiation is reflected through the use of vernacular languages, hybrid linguistic forms, and culturally embedded interactional practices that demonstrate continuity and adaptation amid modernization. Local wisdom is maintained through symbolic artefacts, ritualized practices, and moral values embedded in everyday market transactions. The study concludes that traditional markets in Deli Serdang constitute dynamic semiotic spaces that actively preserve cultural identity and local wisdom while strengthening cultural resilience and social harmony.</i>
Keywords Semiotic landscapes; Traditional markets; Cultural identity; Local wisdom; Multimodality;	
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INTRODUCTION

Traditional markets (TMs) in Indonesia represent more than economic spaces for buying and selling activities; they function as socially and culturally embedded environments where meanings, identities, and collective memories are continuously produced and

negotiated. Unlike modern retail spaces that emphasize standardized consumption patterns and transactional efficiency, traditional markets operate as dynamic semiotic environments where linguistic expressions, visual representations, material objects, and spatial arrangements interact within everyday social encounters. Through these interconnected signs, markets become cultural spaces where communities display values, maintain social relationships, and transmit cultural knowledge across generations. In this sense, traditional markets serve as cultural product spaces where local identities, symbolic meanings, and social values are produced, represented, and experienced through daily practices (Aliyah, 2020). Therefore, examining traditional markets from a semiotic perspective provides an opportunity to understand how communities preserve cultural continuity while responding to modernization pressures.

Deli Serdang (DS), a multicultural regency in North Sumatra, provides a significant context for investigating the semiotic dimensions of traditional markets because of its complex linguistic ecology, diverse ethnic composition, and long-standing trading traditions. The region represents historical interactions among Karo, Melayu, Javanese, Minang, Chinese, and Mandailing communities, each contributing distinctive cultural symbols, linguistic practices, and social traditions. These multicultural interactions create layered semiotic resources embedded in everyday communication, spatial organization, and material culture. As Simanjuntak (2024) explains, the cultural configurations of North Sumatran communities are materially reflected through visual expressions, spatial practices, and communicative norms. Consequently, traditional markets in Deli Serdang can be understood as semiotic landscapes where cultural identities are not only displayed but also negotiated through various forms of meaning-making practices.

The concept of semiotic landscapes (SLs) extends earlier studies of linguistic landscapes (LLs), which initially focused primarily on written signs in public spaces, including street names, commercial advertisements, and shop signs, to examine linguistic diversity, identity representation, and power relations (Backhaus, 2007; Shohamy & Gorter, 2009). However, scholars later recognized that public meaning-making extends beyond written language and involves multiple forms of representation, including images, objects, spatial arrangements, and embodied practices. This theoretical development resulted in the emergence of semiotic landscape studies, which examine the totality of signs, symbols, and material artefacts that collectively construct social and cultural meanings within specific environments (Jaworski & Thurlow, 2010; Machin, 2016). From this perspective, traditional markets should not be viewed merely as collections of commercial signs but as complex semiotic systems where cultural meanings are continuously produced through interactions among people, objects, and spaces.

A multimodal semiotic perspective is essential for understanding how meanings are constructed within traditional market environments. According to Kress and van Leeuwen (2006), meaning does not emerge from a single communicative mode but from the interaction of multiple semiotic resources. In traditional markets in Deli Serdang, linguistic signs appear through written displays, price labels, product information, and verbal exchanges between vendors and customers. These linguistic practices often involve multilingual communication and code-switching among Indonesian and local languages, reflecting cultural affiliation and social relationships. Visual signs are represented through colors, decorative elements, ethnic symbols, and religious motifs, such as Karo *uis gara* textiles and Islamic calligraphy, which function as markers of cultural identity. Meanwhile, material signs are embedded in culturally meaningful objects, including traditional weighing instruments, woven baskets, and ritual artefacts. Spatial signs emerge through vendor positioning, product arrangement, pathways, and market zoning, demonstrating how physical organization contributes to cultural interpretation (Kress & van Leeuwen, 2006).

Beyond multimodality, geosemiotics provides a deeper explanation of how signs acquire meaning through their relationship with social interaction and physical location. Scollon and Scollon (2003) argue that signs cannot be interpreted independently from the contexts in which they appear. Their geosemiotic framework highlights three interconnected dimensions: interaction order, visual semiotics, and place semiotics. Interaction order concerns how social relationships between vendors and buyers influence the interpretation of signs, including greeting practices, bargaining styles, and communicative norms. Visual semiotics examines how design features such as color, framing, salience, and symbolic representation communicate cultural meanings. Place semiotics focuses on how the positioning and arrangement of signs, objects, and spaces reflect social organization and cultural hierarchy. Applying this framework allows traditional markets to be understood as dynamic geosemiotic ecologies where cultural values and social identities are reproduced through everyday practices.

Traditional markets also function as important spaces for maintaining local wisdom. In Indonesian cultural contexts, local wisdom is not merely a collection of inherited beliefs but an active system embedded in social practices, material culture, and communication patterns. Siregar (2023) emphasizes that local wisdom is “inscribed in spatial and material practices that regulate social interactions, economic relations, and collective memory.” Within traditional markets, local wisdom is reflected through customary trading ethics, reciprocity, mutual trust, and social cohesion. Practices such as offering *tambahan* (small additional goods), maintaining respectful bargaining interactions, and assisting neighboring vendors demonstrate that economic transactions are embedded within broader social relationships rather than isolated exchanges. Similarly, the continued use of analogue weighing scales, traditional containers, and culturally meaningful products represents symbolic continuity with ancestral values and ethical trading practices (Eco, 1976; Scollon & Scollon, 2003).

The relationship between semiotic practices and identity negotiation is particularly significant in multicultural market environments such as Deli Serdang. Identity within semiotic landscapes is not fixed but continuously constructed through interactions among individuals and their surrounding symbolic resources. Vendors strategically employ local languages, ethnic symbols, and culturally recognizable displays to express belonging and establish relationships with customers. The use of Karo, Malay, Javanese, and Hokkien linguistic forms, as well as culturally specific visual markers, represents identity performance and social alignment within market interactions (Irwansyah, 2024). Furthermore, contemporary studies indicate that identity negotiation in Asian marketplaces increasingly involves linguistic hybridity and the combination of traditional and modern aesthetic forms (Rahman, 2024; Sirulhaq, 2024). Thus, traditional markets represent evolving cultural spaces where identity, tradition, and modernization interact dynamically.

Although semiotic landscape studies have expanded significantly, existing research has largely focused on urban public signage, multilingual displays, and commercial branding. Comparatively limited attention has been given to traditional markets as integrated multimodal semiotic environments where linguistic, visual, material, spatial, and interactional signs operate simultaneously to construct cultural meanings. Furthermore, studies examining how semiotic practices contribute to cultural resilience, identity negotiation, and preservation of local wisdom within Indonesian traditional markets remain limited. This limitation is particularly evident in Deli Serdang, despite its rich multicultural heritage and historically significant trading culture. Recent scholarship highlights the need for integrated approaches combining visual semiotics, spatial analysis, and ethnographic perspectives to understand complex sign environments (Lestari, 2024).

The novelty of this study lies in positioning traditional markets as integrated multimodal and geosemiotic ecosystems rather than merely economic spaces or collections of public signs.

By combining multimodal semiotics (Kress & van Leeuwen, 2006), geosemiotics (Scollon & Scollon, 2003), and culturally grounded analysis of local wisdom, this research provides a comprehensive understanding of how everyday market practices preserve cultural identity, sustain local knowledge, and negotiate social relationships within a rapidly changing Indonesian society. The study therefore contributes to broader discussions on semiotic landscapes, cultural sustainability, and the preservation of vernacular sign systems in contemporary multicultural environments.

Therefore, this study aims to investigate the semiotic landscapes of traditional markets in Deli Serdang by examining how linguistic, visual, material, and spatial signs construct cultural meanings, represent local wisdom, and facilitate identity negotiation among market participants. Specifically, the study seeks to: (1) analyze how cultural identity and local wisdom are represented through multimodal semiotic resources; (2) explore how semiotic practices contribute to identity negotiation among vendors and customers; and (3) examine how spatial organization, symbolic artefacts, and interactional practices reflect cultural resilience within traditional markets. Based on these objectives, the study addresses three research questions: *How are cultural identity and local wisdom represented through linguistic, visual, material, and spatial signs in traditional markets in Deli Serdang?; How do multimodal semiotic practices within traditional markets contribute to identity negotiation among market participants?; And How do spatial organization, symbolic artefacts, and interactional practices reflect cultural resilience and community-based meanings in traditional markets in Deli Serdang?*

RESEARCH METHOD

Research Design

This study employed a qualitative research design grounded in semiotic analysis, integrating multimodal semiotics, geosemiotics, and ethnographic perspectives to examine how cultural meanings, identity expressions, and local wisdom are constructed within traditional markets in Deli Serdang. A qualitative approach was selected because the study aimed to explore the complex processes of meaning-making embedded in linguistic, visual, material, spatial, and interactional practices rather than to measure variables or test causal relationships. Traditional markets represent socially and culturally situated environments where meanings emerge through everyday interactions among vendors, buyers, objects, and spaces. Therefore, understanding these processes requires an interpretive approach capable of capturing the contextual and symbolic dimensions of market practices.

The selection of a qualitative design was directly aligned with the objectives of the study, which sought to investigate how semiotic resources represent cultural identity and local wisdom, how multimodal practices contribute to identity negotiation, and how spatial arrangements and interactional practices reflect cultural resilience. These objectives require an examination of signs within their natural social contexts because the meanings of linguistic expressions, cultural symbols, artefacts, and spatial configurations cannot be adequately understood through numerical measurement alone. As emphasized in semiotic landscape studies, signs derive their meanings from relationships among language, visual representation, materiality, social interaction, and place (Jaworski & Thurlow, 2010; Machin, 2016). Thus, a qualitative approach enabled the researcher to interpret traditional markets as dynamic cultural texts rather than simply as physical commercial locations.

The qualitative design was further supported by the integration of multimodal semiotics proposed by Kress and van Leeuwen (2006). Since the study focused on multiple semiotic modes, including written language, spoken interaction, colours, symbols, artefacts, product arrangements, and spatial organization, multimodal analysis provided an appropriate framework for examining how different modes collectively construct meaning. For example, local languages used in vendor–customer interactions, ethnic symbols displayed in market

stalls, traditional objects used in trading activities, and spatial arrangements among vendors represent interconnected semiotic resources. A qualitative design allowed these resources to be analyzed holistically, revealing how cultural identity and local wisdom are expressed through the interaction of multiple modes rather than through isolated signs.

Furthermore, the study incorporated a geosemiotic perspective based on Scollon and Scollon (2003), which emphasizes that meaning is inseparable from the physical and social environment in which signs occur. This perspective was particularly suitable because traditional markets are spatially organized environments where vendor positioning, customer movement, product arrangement, and interactional practices contribute to the production of meaning. Through qualitative observation and interpretation, the study was able to examine three interconnected dimensions of geosemiotics: interaction order, visual semiotics, and place semiotics. This enabled the research to move beyond the description of individual signs toward an understanding of how signs function within broader cultural and social systems.

The ethnographic component strengthened the qualitative design by allowing the researcher to investigate semiotic practices as they occurred in everyday market life. Participant observation, visual documentation, field notes, and interviews provided contextual information regarding how vendors and buyers interpret and negotiate cultural meanings. This approach was appropriate because many cultural practices in traditional markets, such as bargaining styles, greeting rituals, reciprocal exchanges, and the use of traditional objects, are embedded within tacit social knowledge that may not be fully captured through textual analysis alone. Ethnographic engagement therefore supported a deeper understanding of how local wisdom is enacted through routine economic activities.

Research Subjects

The study involved 25 participants drawn from five traditional markets in Deli Serdang. The participants consisted of 15 vendors, 7 buyers, and 3 market administrators. Vendors were selected because they actively produced and displayed linguistic, visual, and material signs within market interactions. Buyers were included to provide perspectives regarding sign interpretation, communication practices, and cultural interaction within the market environment. Market administrators contributed information related to market organization, spatial regulation, and community-based market practices. Purposive sampling was employed to select participants who met several criteria: active involvement in traditional market activities; familiarity with local trading culture; regular interaction within multicultural market environments; and willingness to participate voluntarily.

The participants represented diverse ethnic backgrounds, including Karo, Melayu, Javanese, Mandailing, and Chinese communities, reflecting the multicultural characteristics of Deli Serdang markets. Interviews were conducted to obtain participants' interpretations of multilingual signs, symbolic artefacts, spatial arrangements, bargaining practices, and culturally embedded interactional norms. Ethical considerations were maintained throughout the research process. All participants received explanations regarding the research objectives, confidentiality procedures, voluntary participation, and the use of photographic documentation before providing verbal informed consent.

Instruments

Several research instruments were employed to ensure systematic and comprehensive data collection. First, an observation protocol was developed to document multilingual signage, interaction patterns, spatial arrangements, symbolic artefacts, vendor positioning, product displays, and communicative practices occurring within market environments. Second, a semi-structured interview guide was designed to explore participants' perspectives regarding cultural identity, local wisdom, multilingual communication, spatial organization, and symbolic meanings embedded in market practices. Third, photographic documentation

procedures were systematically conducted by capturing signs, banners, product arrangements, ethnic symbols, ritual artefacts, pathways, and market layouts from multiple observation points. Photographs were categorized according to visual, linguistic, material, and spatial semiotic features. Fourth, field notes were organized using descriptive and reflective formats. Descriptive notes recorded observable interactions, spatial configurations, and participant activities, while reflective notes documented analytical impressions, emerging themes, and contextual interpretations during fieldwork. Fifth, coding categories were developed based on Scollon and Scollon's geosemiotic framework and Kress and van Leeuwen's multimodal theory. The categories included: linguistic signs, visual semiotics, material artefacts, spatial organization, interaction order, place semiotics, identity markers, and cultural symbolism. These instruments enabled systematic triangulation and strengthened analytical consistency throughout the study.

The instruments were developed in alignment with the geosemiotic framework proposed by Scollon and Scollon and the multimodal approach suggested by Kress and van Leeuwen. This alignment ensured that the data collected were relevant for analyzing the interaction between language, visual elements, space, and social practices. By combining these instruments, the study ensured data triangulation, which enhanced the credibility and reliability of the findings. Overall, the use of observation, documentation, and field notes as research instruments allowed for a comprehensive and context-sensitive analysis of the semiotic landscape in traditional markets. These instruments were considered appropriate for capturing the complexity of meaning-making processes embedded in everyday social and economic activities.

Data Collection and Data Analysis

Data collection was conducted using multiple qualitative techniques designed to capture the multimodal, spatial, linguistic, and material dimensions of traditional markets in Deli Serdang. The procedures were developed in accordance with the principles of geosemiotics and multimodal semiotics, which emphasize that meanings emerge through the interaction between signs, social practices, and physical environments. Naturalistic observation was employed to examine how vendors and buyers used linguistic expressions, visual cues, spatial arrangements, and material objects during everyday market activities. This approach enabled the researcher to document authentic semiotic practices within their natural contexts (Creswell, 2013; Angrosino, 2007). Field notes were systematically recorded to capture spatial configurations, interaction patterns, and contextual information following ethnographic research procedures (Emerson, Fretz, & Shaw, 2011).

Visual documentation was conducted through systematic photography of market signs, product displays, cultural symbols, artefacts, and spatial arrangements. Photographs served as important multimodal data sources for analyzing how visual elements communicated cultural meanings and identity representations (Pink, 2013; Rose, 2016). Particular attention was given to written signs, banners, price labels, multilingual displays, and their spatial positioning within the market environment. These procedures followed established linguistic and semiotic landscape methodologies, which emphasize the importance of documenting public signs to understand relationships between language, culture, and identity (Backhaus, 2007; Shohamy & Gorter, 2009; Jaworski & Thurlow, 2010). In addition, material artefacts, including traditional tools, packaging materials, ritual objects, and product arrangements, were documented to examine their symbolic meanings and cultural functions. As emphasized by multimodal scholars, material objects and spatial designs represent important semiotic resources that contribute to meaning-making processes (Machin, 2016; Jewitt, 2011).

To complement observational and visual data, semi-structured interviews and informal conversations were conducted with market participants. These interviews explored participants' interpretations of linguistic choices, symbolic displays, spatial organization, and

cultural practices within market interactions. This method allowed participants to explain meanings from their own perspectives while enabling the researcher to explore emerging themes in greater depth (Kvale & Brinkmann, 2009; Rubin & Rubin, 2012).

Data analysis followed an iterative qualitative process involving open coding, thematic analysis, multimodal interpretation, geosemiotic analysis, and triangulation. Initially, photographs, field notes, and interview transcripts were coded to identify recurring semiotic patterns, including multilingual signage, ethnic symbols, bargaining practices, spatial clustering, cultural artefacts, and identity markers. These codes were subsequently organized into broader themes related to cultural identity, local wisdom, symbolic communication, market spatiality, and cultural resilience (Creswell, 2013; Miles, Huberman, & Saldaña, 2014).

The multimodal analysis was guided by Kress and van Leeuwen's (2006) framework, focusing on visual composition, colour, typography, salience, material forms, gestures, and symbolic representations. Meanwhile, geosemiotic analysis based on Scollon and Scollon (2003) examined how meanings were constructed through three interconnected dimensions: interaction order, visual semiotics, and place semiotics. Interaction order focused on social exchanges between vendors and buyers, including greetings, bargaining styles, and communicative norms. Visual semiotics examined how colours, symbols, and design features represented cultural meanings, while place semiotics analyzed how spatial organization, vendor positioning, and object placement reflected social structures and cultural practices.

To ensure analytical credibility, data triangulation was applied by comparing findings from observations, interviews, photographs, linguistic signs, and material artefacts. This process reduced interpretive bias by ensuring that emerging themes were supported by multiple sources of evidence (Denzin, 2012; Miles et al., 2014). Through this integrated analytical approach, traditional markets in Deli Serdang were interpreted not merely as commercial spaces but as dynamic semiotic landscapes where language, material culture, spatial organization, and social interactions collectively sustain cultural identity and local wisdom.

RESEARCH FINDINGS AND DISCUSSION

Research Findings

This study investigated how semiotic signs operate within traditional markets (TMs) in DS through observations of linguistic, visual, material, and spatial practices. The findings indicate that semiotic patterns in the observed markets are closely connected to ethnic identity, multilingual interaction, vendor organization, cultural objects, and local wisdom practices. The results specifically highlight the presence of ethnic symbols, multilingual communication, vendor clustering, traditional material objects, bargaining practices, and reciprocity among traders and buyers. Tables and figures are presented to illustrate these semiotic patterns within the studied markets rather than to generalize all traditional markets in Indonesia.

Ethnic Symbols and Visual Signs

Visual findings showed that ethnic symbols were prominently displayed throughout the markets. Karo vendors commonly used *uis gara* cloths, red-black color combinations, and miniature traditional roof ornaments, while Malay vendors displayed Islamic calligraphy and green-gold decorative motifs near their stalls. These symbols functioned as visible identity markers that allowed buyers to recognize cultural affiliation within market spaces.

Observations at Lubuk Pakam Market showed that 27 out of 35 stalls displayed either Karo or Malay cultural symbols. In addition, many banners and stall decorations combined traditional cultural elements with modern visual displays. Figure 1 illustrates the percentage of semiotic elements documented in the observed markets. The findings suggest that ethnic symbols contribute to the construction of recognizable cultural environments and strengthen the visibility of local identity within the marketplace.

Multilingual Communication

Linguistic findings revealed extensive multilingual communication during buying and selling activities. Vendors regularly used Indonesian, Karo, Malay, Javanese, and Hokkien depending on the linguistic background of buyers. Code-switching and hybrid expressions frequently occurred during greetings, bargaining, and product explanations.

Observations of twenty market interactions indicated that Indonesian was used in 54% of interactions, Karo in 32%, and Malay or Minang in 14% (see Figure 2). Written signs also reflected multilingual practices, as several price labels and banners combined Indonesian with local vocabulary and ethnic expressions. These multilingual practices functioned as social strategies to establish familiarity, reduce social distance, and strengthen communication between vendors and customers.

Vendor Clustering and Spatial Signs

Spatial observations revealed consistent vendor clustering patterns across the studied markets. Traders selling similar products, such as vegetables, spices, ritual items, and traditional foods, tended to group together and form recognizable semiotic zones. Pathways between stalls were narrow and organically arranged, encouraging frequent social interaction among buyers and vendors.

Table 1
Spatial Organization and Semiotic Patterns

Aspect	Findings
Vendor Clustering	Vendors grouped according to product categories, creating recognizable cultural and commercial zones.
Ethnic Spatial Signs	Karo and Malay vendors displayed cultural ornaments and symbols near their stalls.
Pathways	Narrow pathways intensified interaction and directed customer movement.
Customer Navigation	Buyers often approached stalls displaying familiar cultural symbols or languages.

The findings indicate that spatial organization contributed to the visibility of cultural identity and influenced patterns of customer navigation within the market environment.

Cultural Objects and Material Signs

Material findings showed that many vendors continued to use traditional objects and display arrangements in everyday trading activities. Traditional weighing scales, woven baskets, rattan containers, banana leaves, and *tampahs* remained widely used despite the availability of modern alternatives. Approximately 73% of vendors were observed using traditional material objects for packaging and product display. Vendors explained that analogue weighing scales symbolized fairness, honesty, and continuity with traditional trading customs. Traditional food products such as *sipirok* rice, *jurung* fish, and pounded cassava leaves were also arranged according to customary display patterns. These material signs reflected cultural continuity and reinforced trust between traders and customers.

Bargaining Practices and Reciprocity

The findings further revealed the importance of local wisdom practices in market interactions. Bargaining activities were generally conducted through polite and reciprocal communication. Vendors frequently greeted buyers using culturally specific salutations and maintained respectful conversational styles during negotiations. Reciprocity practices were also commonly observed. Many vendors provided small additional items (*tambahan* or bonuses) as gestures of goodwill after transactions. Cooperative behaviors among traders were similarly evident, including helping neighboring stalls during busy periods and maintaining shared cleanliness around selling areas. These practices functioned as non-verbal

semiotic signs representing mutual respect, solidarity, and communal belonging within the market community

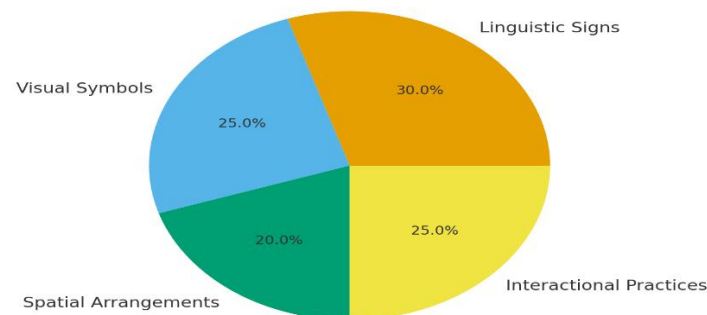


Figure 1. Percentage of Semiotic Elements in Traditional Markets

The spatial mapping (see Table 2) revealed consistent organizational patterns across the three markets. Vendors tended to cluster by product type fresh produce, spices, textiles, and ritual items—creating recognizable semiotic zones. Pathways were narrow and organically shaped, directing customer movement and indicating areas of high interaction density. The analysis also recorded distinct spatial cues used by vendors to signal cultural identities. Karo vendors frequently displayed woven *uis gara* cloths or roof-shaped ornaments, while Malay vendors placed Islamic calligraphy or green-gold motifs near their stalls. These spatialized symbols functioned as visible markers of ethnic affiliation. Patterns of customer navigation showed that buyers often approached stalls associated with familiar cultural symbols, suggesting a link between spatial sign placement and consumer preference.

Table 2
Spatial Organization and Semiotic Patterns

Aspect	Description
Overall Spatial Organization	The spatial mapping revealed consistent organizational patterns across the three markets. Vendors naturally clustered according to product categories—fresh produce, spices, textiles, and ritual items—forming clearly recognizable semiotic zones. Pathways between stalls were narrow and organically shaped, directing customer flow and highlighting areas of high interaction density.
Ethnic Spatial Signifiers	Distinct spatial cues were used by vendors to express cultural identity. Karo vendors frequently displayed woven <i>uis gara</i> cloths or miniature roof-shaped ornaments representing traditional Karo architecture. Malay vendors often placed Islamic calligraphy or green-gold decorative motifs near their stalls. These spatialized symbols served as visible markers of ethnic affiliation within the marketplace.
Navigation and Consumer Behavior	Patterns of customer movement showed that buyers often navigated toward stalls displaying familiar cultural signs. This indicates a relationship between the strategic placement of spatial symbols and consumer preferences, demonstrating that semiotic cues significantly influence navigation and purchasing decisions.

Linguistic data showed extensive multilingual use across the markets. Vendors alternated between Indonesian, Karo, Malay, Javanese, and Hokkien depending on the buyer's background. Code-switching occurred in almost every transaction, while hybrid expressions—mixing Indonesian with local vernacular—were frequently used to establish

rapport. Written signs followed a similar trend. Many banners and price tags combined Indonesian with regional vocabulary or ethnic-specific spellings. These linguistic choices operated as identity markers that aligned traders with particular cultural groups and helped buyers recognize shared social backgrounds.

The findings showed recurring cultural values, object placement, and symbolic decorations. Ritual objects such as betel leaves, incense, and woven offerings were displayed prominently, especially among traders from Karo and Malay communities. Material objects carried strong cultural meanings related to trust, honesty, and traditional ethics. For example, several vendors intentionally used analogue weighing scales rather than digital ones, explaining that these tools symbolized fairness and continuity with ancestral trading customs.

Observational data recorded multiple practices of local wisdom embodied in everyday interactions. Vendors greeted buyers using culturally specific salutations and maintained bargaining styles emphasizing politeness, reciprocity, and mutual respect. In many cases, vendors offered small additional items—*tambahan* or bonus—as gestures of goodwill, reinforcing community-oriented relationships. Traditional norms surrounding collective responsibility were also present. Vendors collectively cleaned surrounding areas, assisted neighboring stalls during busy periods, and maintained informal agreements about stall boundaries. These behaviors functioned as non-verbal signs of solidarity and shared cultural values.

The findings showed that identity negotiation occurred through linguistic choice, symbolic display, and spatial positioning. Traders strategically used local languages, ethnic symbols, and culturally recognizable decorations to signal belonging. In multiethnic interactions, vendors often adopted neutral or hybrid linguistic forms to reduce social distance. Buyers responded to these identities through selective engagement approaching stalls that displayed familiar ethnic or cultural cues. This pattern indicated that identity negotiation was co-produced by both vendors and customers in the semiotic environment of the market.

The combined findings from visual, spatial, linguistic, and material data demonstrate that TMs in DS operate as fully integrated semiotic landscapes in which multiple sign modes converge to construct coherent cultural meaning (consider Table 3). Rather than functioning independently, signs across modalities visual symbols, spatial configurations, linguistic practices, and material arrangements interact to form a unified semiotic system that is immediately recognizable to community members. The clustering of ethnic markers, the fluid use of multilingual communication, and the culturally embedded ways vendors display and organize products all work together to materialize shared identities and reaffirm long-standing social norms. These interconnected sign practices not only reflect cultural heritage but also actively reproduce core values such as harmony, mutual trust, reciprocity, and communal belonging. In this way, the markets emerge as living cultural infrastructures where identity is negotiated, tradition is enacted, and local wisdom continues to shape everyday social life.

Table 3
Integrated Semiotic Landscape Characteristics of TMs in DS

Analytical Dimension	Empirical Findings	Semiotic Functions	Cultural Interpretations
Visual Signs	27 of the 35 stalls at Lubuk Pakam Market display Karo or Malay ethnic symbols (e.g., gorga ornaments, songket cloth, the typical Karo red-black color).	Presenting an easily recognizable visual identity.	Strengthening local cultural identity.
	68% of signage uses a combination of traditional icons and modern elements.		

Analytical Dimension	Empirical Findings	Semiotic Functions	Cultural Interpretations
Spatial Configurations	Traditional food stalls are consistently clustered within a 3–5 meter radius, creating a "cultural zone."	Communicating the presence of a particular ethnic group without the need for verbal communication.	Strengthening the visual connection between vendors and the community.
	The aisle layout follows the traditional village market pattern, with a hierarchy from wet to dry products.		Creating social harmony by ensuring that spaces are read culturally.
Linguistic Practices	Observations of 20 buying and selling interactions revealed the use of three languages: Indonesian (54%), Karo (32%), and Malay/Minang (14%).	Producing cultural order in space.	Bounding traditional customs within modern economic practices.
	Vendors frequently code-switch to build rapport with buyers.		
Material Arrangements	Local products such as sipirok rice, jurung fish, and pounded cassava leaves are arranged traditionally, rather than according to modern display principles.	Supporting social routines and interaction patterns.	Strengthening mutual trust and familiarity.
	73% of vendors still use rattan containers, tampahs, or banana leaves.		
Intermodal Integration	The integration of visual symbols, space, language, and materials is evident in the "ethnic zone," which is easily recognized by visitors.	Producing inclusive interactions.	Maintaining linguistic diversity within the context of a people's economy.
	Data shows a strong correlation between the placement of ethnic symbols and the use of local languages in the same area.		Preserving authentic values and local wisdom.
Cultural Outcome	Markets are spaces where identities, traditions, and social norms are reproduced daily through semiotic practices.	Marking social and ethnic affiliations through language.	

Discussion

The findings of this study demonstrate that traditional markets in Deli Serdang function as dynamic semiotic landscapes where linguistic, visual, material, spatial, and interactional resources operate simultaneously to construct cultural meanings. Rather than functioning merely as economic spaces, these markets represent culturally embedded environments where identity, local knowledge, and social relationships are continuously negotiated. This finding supports the broader argument of semiotic landscape studies that public spaces should be understood as complex meaning-making environments in which multiple signs interact to communicate social and cultural values (Jaworski & Thurlow, 2010; Machin, 2016). The study extends previous research by demonstrating that traditional markets, particularly within a multicultural Indonesian context, provide important sites for examining how cultural continuity is maintained through everyday semiotic practices.

The first important finding concerns the role of visual symbols in representing cultural identity. The presence of Karo *uis gara* textiles, red-black colour combinations, traditional ornaments, and Malay Islamic decorative motifs indicates that market spaces operate as visual arenas where ethnic affiliations become publicly recognizable. These findings confirm Kress and van Leeuwen's (2006) multimodal perspective, which argues that meaning is constructed through the interaction of visual resources, colour, composition, and symbolic representation rather than through language alone. Previous linguistic landscape studies have primarily focused on written signs, such as public advertisements and commercial displays (Backhaus, 2007; Shohamy & Gorter, 2009). However, the present study extends this perspective by showing that cultural identity in traditional markets is also communicated through non-linguistic resources, including clothing patterns, decorative objects, and stall arrangements.

The findings also reinforce the argument that semiotic landscapes represent broader systems of cultural representation beyond linguistic landscapes. Jaworski and Thurlow (2010) emphasize that public spaces contain multiple layers of meaning produced through the relationship between language, image, and space. In the context of Deli Serdang markets, ethnic symbols do not function as isolated decorative elements; instead, they interact with language practices, vendor identities, and spatial organization to create culturally meaningful environments. The combination of traditional symbols with contemporary market displays further indicates that cultural representation is not static but continuously adapted according to changing social conditions. This finding supports Rahman (2024) and Sirulhaq (2024), who argue that identity in contemporary Asian public spaces increasingly emerges through hybrid forms combining traditional and modern semiotic resources.

A second significant finding relates to multilingual communication and identity negotiation. The study revealed that vendors frequently used Indonesian, Karo, Malay, Javanese, and Hokkien during market interactions, with code-switching occurring during greetings, bargaining, and product explanations. These linguistic practices confirm previous research suggesting that multilingual public spaces serve as important arenas for negotiating belonging, solidarity, and social relationships (Backhaus, 2007; Shohamy & Gorter, 2009). However, the findings extend earlier linguistic landscape studies by demonstrating that multilingual practices in traditional markets are not limited to written signs but are embedded in everyday interpersonal interactions. Language choice becomes a social strategy through which vendors establish familiarity, reduce interpersonal distance, and construct relationships with customers.

This finding also contributes to discussions on identity as an interactive and negotiated process. Rather than representing fixed ethnic boundaries, multilingual practices in Deli Serdang markets demonstrate flexibility and adaptation among different cultural groups. Vendors often adjust their linguistic choices according to the backgrounds of customers, indicating that identity is collaboratively produced through interaction. This supports the sociolinguistic perspective that identity is performed through communicative practices and shaped by social contexts (Sirulhaq, 2024). In this sense, traditional markets represent spaces where multicultural coexistence is actively practiced through everyday communication.

Another important contribution of this study concerns the relationship between spatial organization and cultural meaning. The findings show that vendor clustering, product arrangement, and customer movement patterns create recognizable semiotic zones within the markets. This finding strongly supports Scollon and Scollon's (2003) geosemiotic framework, which emphasizes that meanings emerge from the relationship between signs, physical locations, and social practices. Spatial arrangements in Deli Serdang markets are not simply functional mechanisms for organizing commercial activities; they also communicate cultural structures and social relationships. For example, the placement of ethnic symbols near

specific stalls and the organization of products according to cultural categories demonstrate how space itself becomes a communicative resource.

These findings extend previous studies of linguistic landscapes by emphasizing the importance of place-based analysis. While earlier studies often examined signs as textual objects, geosemiotic approaches highlight that meaning is inseparable from spatial context (Scollon & Scollon, 2003). In traditional markets, pathways, stall locations, and product arrangements contribute to how customers interpret cultural identities and navigate social interactions. Thus, market space should be understood as an active semiotic participant rather than a passive background for communication.

The findings further reveal that local wisdom remains strongly embedded within market practices. Bargaining styles characterized by politeness, reciprocal exchanges through *tambahan* (small additional goods), collective responsibility among vendors, and the continued use of traditional objects demonstrate that economic activities are closely connected with moral and cultural values. These findings support Siregar's (2023) argument that local wisdom is embedded within spatial and material practices that regulate social interaction, economic relationships, and collective memory. Similarly, Sibarani (2018) emphasizes that cultural wisdom is preserved through linguistic and non-linguistic practices that guide social behaviour.

The continued use of analogue weighing scales, woven baskets, banana leaves, and traditional product arrangements further illustrates how material objects function as carriers of cultural memory. These findings extend Eco's (1976) semiotic perspective by showing that objects within market environments possess symbolic meanings beyond their practical functions. A traditional weighing scale, for example, is not merely a commercial instrument but represents fairness, honesty, and continuity with inherited trading ethics. Therefore, material culture plays an important role in sustaining local values within contemporary economic environments.

This study contributes to semiotic landscape scholarship by integrating linguistic, visual, material, spatial, and interactional dimensions into a unified analytical framework. Previous studies have frequently examined individual semiotic resources, whereas this research demonstrates how multiple modes operate together to produce cultural meanings within traditional markets. The findings support multimodal theories that emphasize the interconnected nature of communication resources (Kress & van Leeuwen, 2006) and extend geosemiotic approaches by illustrating how market spaces function as culturally meaningful environments.

CONCLUSION

This study examined the semiotic landscapes of TMs in DS to understand how linguistic forms, visual signs, spatial configurations, and interactional practices construct cultural values, facilitate identity negotiation, and embed local wisdom. The findings demonstrated that market spaces are not merely economic centers but dynamic cultural arenas where signs continuously circulate, shift, and acquire meaning through daily social interactions. The semiotic patterns observed across signage, product displays, verbal expressions, and spatial arrangements collectively illustrate how tradition, modernity, and cultural identity intersect in the lived experiences of market communities. Theoretically, this study contributes to semiotic and sociolinguistic scholarship by illustrating how approaches in geosemiotics and multimodal semiotics can be integrated to analyze culturally grounded sign environments.

The research affirms that semiotic landscapes are shaped by both material arrangements and social practices, highlighting the interplay between visible signs and the tacit cultural knowledge that informs their interpretation. The study also enriches discussions on identity negotiation by demonstrating how vendors and buyers use semiotic cues to affirm belonging, maintain cultural continuity, and adapt to socio-economic changes. Practically, the findings

provide important insights for cultural preservation, local economic planning, and educational initiatives. Understanding how TMs function as cultural and semiotic spaces can support stakeholders such as local governments, cultural institutions, and community organizations in designing policies that protect market identity while accommodating modernization. The results also offer valuable input for cultural tourism development and for integrating local wisdom into community-based education. Future research may explore comparative semiotic landscapes between TMs and modern markets, investigate the impact of digitalization on market sign systems, or employ longitudinal approaches to document semiotic changes over time. Additional studies could also extend the analysis to other Indonesian regions to further understand the diversity of cultural expressions embodied in TMs environments. By expanding these areas of inquiry, scholars can continue uncovering how semiotic landscapes shape and reflect Indonesia's rich cultural heritage.

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INFORMED CONSENT STATEMENT

Participation in this study is entirely voluntary. By agreeing to take part, the participants acknowledge that they have been informed about the purpose, procedures, potential risks, and benefits of the study. Participants understand that their identity are kept confidential and that all information they provide are used solely for research purposes. They have the right to withdraw from the study at any time without any penalty or loss of benefits to which they are otherwise entitled. By continuing, they give their informed consent to participate in this research under the conditions described.

DATA AVAILABILITY STATEMENT

The data utilized in this study can be made publicly available.

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