

TRANSFORMATION OF THE SALES MODEL OF PASAR BENGKEL DODOL MSMEs FOLLOWING CHANGES IN MOBILITY ROUTES

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Abstract

The operation of the Medan-Kualanamu-Tebing Tinggi (MKTT) Toll Road shifted traffic away from the Trans-Sumatra Highway (Jalinsum) and directly affected dodol MSMEs in Pasar Bengkel, Bengkel Village, Serdang Bedagai Regency. Approximately 19 of 55 shops closed, while the remaining 36 shops experienced a workforce decline from 79 to 59 workers. This study analyzes changes in the sales models of dodol MSMEs before and after the mobility-route shift, identifies barriers to transformation, and formulates a feasible sales model. A descriptive qualitative approach was applied to ten informants selected through purposive sampling, including MSME owners, consumers, the village head, and a community leader. Data were collected through semi-structured interviews, non-participant observation, and documentation and analyzed using the Miles and Huberman interactive model. The findings show a shift from passive, road-traffic-based selling toward digital marketing through e-commerce and social media. The transformation is constrained by limited digital literacy, working capital, and price competition in digital markets. The proposed model is a collaborative omnichannel approach integrating physical stores, digital channels, and centralized online marketing through the Village-Owned Enterprise (BUMDes).

Keywords: digital transformation; infrastructure disruption; institutional collaboration; MSMEs; omnichannel sales model

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in supporting the national economy, both as drivers of community economic activity and as providers of employment. One well-known MSME center in North Sumatra is Pasar Bengkel, Bengkel Village, Perbaungan District, Serdang Bedagai Regency, which for decades has served as a center for selling locally produced dodol along the Trans-Sumatra Highway (Jalinsum). According to the Department of Industry and Trade of Serdang Bedagai Regency (2022), Bengkel Village hosted 55 of the 65 dodol MSME operators in Perbaungan District, representing approximately 84.62 percent of the total population of similar businesses.

The operation of the Medan-Kualanamu-Tebing Tinggi (MKTT) section of the Trans-Sumatra Toll Road diverted a substantial share of vehicle traffic from Jalinsum to the toll road. Preliminary data collected by the researchers show that average sales fell from 20 kg per day to 3 kg per day per shop, business turnover declined by up to 50 percent, approximately 19 shops became inactive, and employment among the 36 surviving shops decreased from 79 to 59 workers. These conditions encouraged business owners to transform their sales models by using social media, including Facebook, Instagram, WhatsApp, and TikTok, as well as e-commerce platforms such as Shopee and Tokopedia for promotion and transactions (Aini, 2025; Alfaqih, 2025).

Based on these conditions, this study aims to: (1) identify the sales models used by Pasar Bengkel dodol MSMEs before and after the mobility-route shift; (2) identify the barriers encountered during the transformation of the sales model; and (3) formulate an ideal sales model that is feasible to implement and can be supported institutionally.

LITERATURE REVIEW

Previous studies on the impact of the Medan-Tebing Tinggi Toll Road on MSMEs in Pasar Bengkel have generally focused on economic consequences, particularly declines in income and employment (Manullang & Samosir, 2019a, 2019b; ButarButar & Rahayu, 2023; Abdillah et al., 2024). While these studies document the economic effects of the toll road, they do not examine in detail how affected business owners transform their sales models as an adaptive response to the shift in mobility routes.

Studies of digital transformation and e-commerce among MSMEs are generally broader in scope and are not specifically linked to infrastructure disruption as a trigger for business change (Raharti & Padli, 2024; Fajriah, 2025; Al Ghozali et al., 2025; Yuliani, 2026; Harahap et al., 2026; Mukaromah & Hasbullah, 2026). Digital transformation is associated with modifying business strategies to respond to changing market needs (Frisca, 2017) rather than merely adopting new marketing tools (Egodawe et al., 2022). In addition, the omnichannel perspective emphasizes integration between offline and online channels to create a more seamless shopping experience (Verhoef et al., 2021; Mishra et al., 2021).

This study addresses the gap between these two streams of research by tracing the transformation of the sales model among traditional-food MSMEs following a mobility-route shift, identifying the literacy and operational barriers that accompany the transition, and formulating an adaptive and collaborative sales model for the post-disruption context.

METHOD

This study employed a descriptive qualitative approach to analyze, record, describe, and interpret the phenomenon under investigation through interviews, observation, and documentation (Moleong, 2018). The study was conducted at the Pasar Bengkel MSME center in Bengkel Village, Perbaungan District, Serdang Bedagai Regency, from May to August 2026.

Informants were selected through purposive sampling based on predetermined inclusion criteria. Ten informants were included: five dodol MSME owners who had operated their businesses for at least five years and had experienced both the pre-toll and post-toll periods; three consumers with experience purchasing both offline and online; one village head or village official; and one leader of the traders' community. Primary data were obtained through semi-structured interviews and non-participant field observations, while secondary data were drawn from village reports, data from relevant institutions, and screenshots documenting online-store activities.

Data analysis followed the interactive model of Miles and Huberman (Miles et al., 2019; Sugiyono, 2020), including data reduction or condensation through coding from open codes to themes, data display in matrices and narrative form, and conclusion drawing and verification. Data credibility was assessed through source triangulation by comparing MSME owners' accounts with information from the village head and community leader; method triangulation by comparing interviews with observations and documentation; and member checking of the draft collaborative sales model with village officials and community representatives.

RESULTS AND DISCUSSION

Characteristics of Informants

The ten research informants consisted of five MSME owners with varying business scales and levels of digital adaptation, ranging from traditional traders who had not yet used digital technology to younger successors who had substantially shifted their sales strategies toward digital channels. The informants also included three consumers with both offline and online purchasing experience, one village head who understood the broader data on the effects of the toll-route shift, and one community leader representing the collective aspirations of traders. This variation enabled the study to capture the transformation of the sales model from the perspectives of producers, consumers, and local institutional actors.

Sales Model Before and After the Mobility-Route Shift

Before the MKTT toll road became operational, the sales model of Pasar Bengkel dodol MSMEs was passive and highly dependent on Jalinsum traffic. Traders primarily displayed their products in storefront cases to attract passing travelers. One MSME owner explained, "Before the toll road, selling was easy. We only displayed dodol in the glass case, and passing travelers would stop to buy. At least 20 kg was sold per day" (IU-1). This pattern was reinforced by consumers who integrated dodol purchases into their travel routines.

After the toll road began operating, business survival became increasingly dependent on the speed of digital adaptation, with younger family successors playing a critical role. One informant reported shifting a substantial portion of sales to online channels through live streaming and e-commerce store optimization (IU-3), while another used geographically targeted paid social-media advertising and offered free delivery for large purchases (IU-5). These findings indicate a shift from a location-dependent single-channel model toward a sales model in which digital channels serve as the primary sales driver.

Barriers to Sales Model Transformation

The transformation process faced two main groups of barriers. First, internal constraints included gaps in human resources and limited capital. Most MSME workers possessed production skills rather than digital marketing capabilities, so hiring a competent online administrator created an additional cost burden (IU-5). The village head also confirmed that traders' age profiles and the lack of sustained mentoring often caused digital-training implementation to stop after the initial training stage (KD-1).

Second, the digital ecosystem introduced intense price competition and new operating costs. Business owners who entered digital markets competed with thousands of similar products from other regions (IU-3), while also facing initial investment requirements for vacuum packaging and platform service deductions (IU-2). These findings reinforce earlier observations that human-resource readiness and access to working capital are fundamental conditions for successful business transformation among micro and small enterprises.

Proposed Ideal Sales Model: Omnichannel and BUMDes Collaboration

Field evidence indicates that relying exclusively on either offline or online sales is no longer adequate. MSME informants emphasized the importance of an omnichannel combination in which physical stores are maintained for branding and for serving travelers who still pass through the area, while digital channels such as TikTok, Instagram, and Shopee become the main sales drivers (IU-5). The community leader also suggested developing bite-size products in premium packaging so that dodol could enter supermarket or minimarket networks in urban areas (KK-1). The village head proposed centralizing online marketing operations through the Village-Owned Enterprise (BUMDes), allowing traders with limited digital skills to supply their products to a village youth team responsible for online marketing (KD-1).

Operationally, the proposed mechanism includes digital selling through live streaming during strategic hours and product bundling across flavor variants to make shipping costs more efficient. The digital-literacy gap among senior traders would be addressed by fully centralizing online operations under BUMDes. Traders would deliver stock each morning, while account management, packaging, and handover to delivery couriers would be handled by village youth employed as administrators. A revenue-sharing mechanism would be used to cover administrator wages, internet data, and promotional subsidies. For product readiness, standardized airtight vacuum packaging would be applied to extend product shelf life and support long-distance distribution. For physical sales, traders could collectively relocate part of their market presence to the MKTT Toll Road rest area through a shared outlet rented by BUMDes on a consignment basis, allowing rental costs to be distributed proportionally among participating traders.

The proposed model depends on a clear division of roles among stakeholders. MSME owners would focus on production and taste standardization; BUMDes would execute online marketing and distribution; and the local government and toll-road operator would facilitate supporting infrastructure, including subsidies for training digital administrators and reduced commercial-outlet rental costs as part of corporate social responsibility. The risk of distrust among traders regarding revenue-sharing transparency would be mitigated through an open digital financial-reporting system, while the risk of expired inventory accumulation would be managed using the First In, First Out (FIFO) method. Implementation is proposed in stages. The short-term phase, months 1 to 6, would focus on standardized packaging and integrated branding. The medium-term phase, months 6 to 12, would focus on launching an official BUMDes e-commerce account and opening a pilot outlet in the toll-road rest area.

Discussion

The decline in dodol sales from 20 kg to 3 kg per day following the loss of access to dense road traffic supports the empirical findings of Manullang and Samosir (2019a, 2019b) regarding weakened physical MSME activity after toll-road development. However, unlike earlier studies that primarily identified the impact, this study shows that business owners responded through proactive adoption of digital platforms. This response is consistent with the concept of digital transformation as a process of modifying business strategies to meet changing market needs (Frisca, 2017), rather than merely adopting new marketing tools (Egodawe et al., 2022).

The digital-literacy and capital constraints identified in this study are consistent with Alfaqih (2025) on the challenges of e-commerce adoption among MSMEs and further indicate that technology integration in micro and small enterprises does not occur automatically. It requires human-resource readiness and sufficient working capital. The proposed omnichannel model, which integrates physical stores and digital channels, is also consistent with the frameworks discussed by Verhoef et al. (2021) and Mishra et al. (2021) regarding integration between offline and online shopping channels. The distinctive contribution of this study lies in the proposed institutional collaboration through BUMDes as an intermediary for the digital-literacy gap among senior traders, an element that has received

limited attention in previous studies of digital transformation among traditional-food MSMEs (Al Ghozali et al., 2025; Yuliani, 2026). This mechanism allows sales-model transformation to be implemented collectively without requiring every trader to develop the same level of individual technical capability.

CONCLUSION

The mobility-route shift following the operation of the MKTT Toll Road substantially changed the sales model of Pasar Bengkel dodol MSMEs from a passive, physical-display-based model toward proactive marketing through an omnichannel approach combining physical stores, e-commerce, and social media. The transformation is constrained by internal factors, including limited digital literacy and the absence of dedicated online marketing personnel, as well as external factors, including price competition in digital markets and the initial capital required for packaging innovation. The proposed sales model is a collaborative omnichannel model that maintains physical stores as branding centers, expands market penetration to toll-road rest areas, and centralizes digital sales operations through BUMDes to bridge the digital-literacy gap among conventional traders.

MSME owners are encouraged to maintain omnichannel integration and expand distribution collectively to reduce price competition among local traders. The village government is encouraged to establish a BUMDes unit focused on digital marketing, supported by product-standardization procedures, the involvement of village youth as online administrators, and a transparent revenue-sharing mechanism. Toll-road operators and the local government are expected to facilitate subsidized commercial space in rest areas. Future research may further examine the cost-benefit effectiveness of digital marketing and BUMDes operations within the e-commerce ecosystem.

REFERENCES

- Abdillah, M. D., Harahap, I., Anggara, W., & Nurojiyah, S. (2024). Pengaruh Jalan Tol Terhadap Pembangunan Ekonomi Khususnya UMKM di Sumatera Utara. *Prosiding Seminar Nasional Ilmu Ekonomi Dan Akuntansi*, 1(2), 408-413.
- Aini, E. I. N. (2025). Efektifitas Strategi Pemasaran Digital UMKM Melalui Platform Media Sosial: Studi Kasus Instagram, WhatsApp Business, dan Facebook. *Jurnal Ekonomi Manajemen*.
- Al Ghozali, M. I., Ubaidillah, I., Firmansyah, M. F., Agustiana, Z., Saputri, M., Septiana, V. M., Nuraeni, A., Nurpitasari, S., Hakim, L., Saekhu, A., & Supriyanto, W. U. (2025). Transformasi Digital UMKM Makanan Tradisional: Implementasi Pendampingan Komprehensif pada Usaha Peyek dan Rengginang Zahra di Kabupaten Cirebon. *Inisiatif: Jurnal Dedikasi Pengabdian Masyarakat*, 4(2), 149-161.
- Alfaqih, S. A. (2025). Dampak E-Commerce Terhadap UMKM di Indonesia: Peluang dan Hambatan. *Indonesian Journal of Economics Management and Accounting*, 2094-2102.
- ButarButar, H. W., & Rahayu, E. (2023). Dampak Sosial Dan Ekonomi Pembangunan Jalan Tol MKTT Terhadap UMKM Pasar Bengkel Kabupaten Serdang Bedagai. *Jurnal Ilmu Sosial Dan Pendidikan (JISIP)*, 7(1), 190-200.
- Egodawele, M., Sedera, D., & Bui, V. (2022). A systematic review of digital transformation literature (2013-2021) and the development of an overarching apriori model to guide future research. *arXiv*.
<https://doi.org/10.48550/arXiv.2212.03867>
- Fajriah, Y. (2025). Strategi Adaptasi UMKM Terhadap Perubahan Tren Konsumen Di Era Digital. *Jurnal Economina*, 4(1), 1-8.
- Frisca, M. (2017). Strategi Transformasi Digital. Yayasan Kita Menulis.
- Harahap, L. M., Nuraina, A. L., Kartika, R., Zuhra, N., Sapitri, I., & Irfandi, M. (2026). Strategi Adaptasi UMKM Dalam Menghadapi Perubahan Perilaku Konsumen Di Era Ekonomi Digital. *Jurnal Ilmiah Ekonomi Dan Manajemen (JIEM)*, 4(4), 122-135.
- Khasanah, U., Nugraha, N., & Kokotiasa, W. (2024). Analisis Dampak Ekonomi dan Sosial Pembangunan Tol Terhadap Pasar Bengkel di Perbaungan. *Jurnal Wissen*, 1(2), 56-63.
- Manullang, J., & Samosir, H. (2019a). Analisis Dampak Pembangunan Jalan Tol Medan-Tebing Tinggi Terhadap Kegiatan Jajanan Usaha Mikro Kecil Dan Menengah Di Pasar Bengkel. *Jurnal Bisnis Terapan*, 3(2), 167-178.
- Manullang, J., & Samosir, H. (2019b). Pengaruh Pembangunan Jalan Tol Medan-Tebing Tinggi Terhadap Usaha Mikro Kecil Dan Menengah. *Jurnal Ilmiah Akuntansi Dan Finansial Indonesia*, 3(1), 45-54.
- Miles, M. B., Huberman, A. M., & Saldana, J. (2019). *Qualitative Data Analysis: A Methods Sourcebook* (4th ed.). SAGE Publications.
- Mishra, R., Singh, R. K., & Koles, B. (2021). Consumer decision-making in omnichannel retailing: Literature review and future research agenda. *International Journal of Consumer Studies*, 45(2), 147-174.

- Moleong, L. J. (2018). *Metodologi Penelitian Kualitatif*: Edisi Revisi Cetakan 38. Remaja Rosdakarya.
- Mukaromah, N. S., & Hasbullah. (2026). Analisis Komparatif Kinerja Penjualan Antara UMKM Pengguna QRIS Dengan Non-Pengguna QRIS. *Business and Entrepreneurship Journal (BEJ)*, 7(1), 10-15.
- Peraturan Pemerintah (PP) No. 7 Tahun 2021 tentang Kemudahan, Pelindungan, dan Pemberdayaan Koperasi dan Usaha Mikro, Kecil, dan Menengah. (2021).
- Raharti, R., & Padli, M. I. (2024). Analisis Dampak E-commerce Terhadap Pengaruh Penjualan UMKM. *JURMA: Jurnal Riset Manajemen*, 2(1), 171-178.
- Sugiyono. (2020). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 112, 889-901.
- Yuliani, M. (2026). Digital Entrepreneurship: Transformasi Model Bisnis dan Strategi Pemasaran UMKM di Era Ekonomi Digital Indonesia. *Journal of Artificial Intelligence and Digital Business (RIGGS)*, 5(1), 5452-5459.