



THE IMPACT OF DIGITALIZATION ON MSME PERFORMANCE: A QUALITATIVE STUDY ON 3 KG LPG DISTRIBUTION OUTLETS

DAMPAK DIGITALISASI TERHADAP KINERJA UMKM: STUDI KUALITATIF PADA GERAJ DISTRIBUSI LPG 3 KG

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Abstract

Digitalization has become a key strategy for enhancing the competitiveness of Micro, Small, and Medium Enterprises (MSMEs) amidst advances in information technology and changes in consumer behavior. The use of various digital platforms, such as social media, marketplaces, digital payment applications, and technology-based financial recording systems, is expected to improve operational efficiency and expand marketing reach. However, the level of digital technology utilization by 3 Kg LPG distribution outlets remains varied, necessitating a more in-depth study of the impact of digitalization on business performance. This study aims to analyze the impact of digitalization on MSME performance based on interviews with owners and managers of 3 Kg LPG distribution outlets under PT Pinang Baris Langit Biru. The study employed a qualitative approach with descriptive methods. Data were collected through in-depth interviews, observations, and documentation of 3 Kg LPG distribution outlets that have implemented digitalization in their business activities. Data analysis was conducted using the Miles and Huberman model, which includes data reduction, data presentation, and conclusion drawing. The research results indicate that the implementation of digitalization has a positive impact on MSME performance, particularly at 3 Kg LPG distribution outlets, including increasing sales, expanding market share, accelerating transaction processes, improving promotional effectiveness, and simplifying business administration and financial management. However, several obstacles remain, such as low digital literacy, limited human resources, and limited access to technology. Therefore, support in the form of training, mentoring, and government policies is needed to improve digital capabilities at 3 Kg LPG distribution outlets so that digital transformation can proceed optimally.

Keywords : Digitalization, Business Performance, MSMEs, 3 Kg LPG Distribution Outlets, Digital Transformation.



Abstrak

Digitalisasi telah menjadi strategi kunci untuk meningkatkan daya saing Usaha Mikro, Kecil, dan Menengah (UMKM) di tengah kemajuan teknologi informasi dan perubahan perilaku konsumen. Penggunaan berbagai platform digital, seperti media sosial, pasar online, aplikasi pembayaran digital, dan sistem pencatatan keuangan berbasis teknologi, diharapkan dapat meningkatkan efisiensi operasional dan memperluas jangkauan pemasaran. Namun, tingkat pemanfaatan teknologi digital oleh gerai distribusi LPG 3 Kg masih bervariasi, sehingga diperlukan studi yang lebih mendalam tentang dampak digitalisasi terhadap kinerja bisnis. Studi ini bertujuan untuk menganalisis dampak digitalisasi terhadap kinerja UMKM berdasarkan wawancara dengan pemilik dan manajer gerai distribusi LPG 3 Kg di bawah PT Pinang Baris Langit Biru. Studi ini menggunakan pendekatan kualitatif dengan metode deskriptif. Data dikumpulkan melalui wawancara mendalam, observasi, dan dokumentasi gerai distribusi LPG 3 Kg yang telah menerapkan digitalisasi dalam kegiatan bisnis mereka. Analisis data dilakukan menggunakan model Miles dan Huberman, yang meliputi reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa implementasi digitalisasi berdampak positif pada kinerja UMKM, khususnya di gerai distribusi LPG 3 Kg, termasuk peningkatan penjualan, perluasan pangsa pasar, percepatan proses transaksi, peningkatan efektivitas promosi, dan penyederhanaan administrasi bisnis dan manajemen keuangan. Namun, beberapa kendala masih ada, seperti rendahnya literasi digital, keterbatasan sumber daya manusia, dan keterbatasan akses terhadap teknologi. Oleh karena itu, dukungan berupa pelatihan, pendampingan, dan kebijakan pemerintah diperlukan untuk meningkatkan kemampuan digital di gerai distribusi LPG 3 Kg agar transformasi digital dapat berjalan optimal.

Kata Kunci : Digitalization, Business Performance, MSMEs, 3 Kg LPG Distribution Outlets, Digital Transformation.

1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) constitute one of the most vital sectors driving economic growth in Indonesia. In addition to absorbing a large portion of the labor force, MSMEs also contribute to the equitable distribution of income across communities (Ministry of Cooperatives and SMEs, 2023). One form of MSME that plays a strategic role in meeting public needs is the 3 Kg LPG distribution outlet, which functions as an official distributor of government-subsidized LPG gas. These distribution outlets bear the responsibility of distributing subsidized LPG accurately to targeted communities in accordance with government regulations (Pertamina Patra Niaga, 2024).

The development of information technology has spurred digital transformation across various business sectors, including 3 Kg LPG distribution outlets. Digitalization is not only utilized as a promotional medium but also to support business operations, such as sales recording, gas cylinder inventory management, communication with agents, the use of digital payment applications (QRIS), and the dissemination of information to customers through social media and instant messaging applications. The utilization of digital technology is expected to enhance service effectiveness, accelerate transaction processes, and facilitate business management (Firadausi & Sujatmiko, 2025).

Nevertheless, the level of digitalization implementation at 3 Kg LPG distribution outlets remains varied. Some outlets have leveraged digital technology in their business operations, while others continue to rely on conventional administration and service methods. These differences are influenced by human resource capabilities, digital literacy levels, availability of technological infrastructure, and business operators' perceptions of the benefits of digitalization. Digitalization is believed to yield positive impacts on the performance of 3 Kg LPG distribution outlets. The use of digital technology can enhance administrative efficiency, facilitate inventory management, accelerate customer service, reduce recording errors, and support data-driven decision-making. Furthermore,



more effective communication with agents and customers can improve service quality and customer satisfaction.

Most previous research has examined digitalization in MSMEs within the trade, culinary, and service sectors. Studies on digitalization at 3 Kg LPG distribution outlets remain extremely limited, despite this sector possessing distinct operational characteristics due to its position within the subsidized goods distribution system. Nugroho and Sari (2024) investigated MSME digitalization as a strategy for enhancing business competitiveness in the digital economy era, while Prasetyo and Huda (2023) examined digital transformation challenges and opportunities for MSMEs. However, neither study specifically addressed the subsidized LPG distribution sector. Therefore, this research offers novelty by examining the implementation of digitalization at 3 Kg LPG distribution outlet MSMEs, which possess unique subsidized goods distribution characteristics and have received insufficient attention in the existing literature.

Based on the conditions described above, research examining the implementation of digitalization and its impact on MSME performance at 3 Kg LPG distribution outlets is warranted. This study employed a qualitative approach using in-depth interviews with owners and managers of 3 Kg LPG distribution outlets. Through interviews, the researchers obtained firsthand information regarding the forms of digitalization implemented, the benefits experienced, the obstacles encountered, and the impact on business performance improvement. The research findings are expected to contribute to the development of knowledge in the fields of small business management and digital transformation, and to serve as input for business operators, the government, and relevant stakeholders in formulating strategies for improving digital technology utilization to enhance operational efficiency, service quality, and sustainable business performance.

2. RESEARCH METHOD

Research Design

This study employed a qualitative approach with a descriptive method. According to Yusuf (2020), the qualitative approach was selected because it aims to gain an in-depth understanding of how the implementation of digitalization affects MSME performance at 3 Kg LPG distribution outlets based on the experiences and perceptions of business operators. As stated by Moleong (2021), this research focuses on information extraction through interviews, thereby providing a comprehensive depiction of field conditions.

Research Location

The research was conducted at MSME 3 Kg LPG Distribution Outlets under the auspices of PT Pinang Baris Langit Biru, which encompasses 28 distribution outlets spread throughout Medan that have been conducting business activities and have begun utilizing digital technology in their operational activities and customer service.

Data Collection Techniques

Data validity was ensured through source triangulation and technique triangulation by comparing the results of interviews, observations, and documentation. Research data were collected through several techniques as outlined by Yusuf (2020):

a. In-depth Interviews

Interviews were conducted directly with owners, managers, and employees of 3 Kg LPG distribution outlets using semi-structured interview guidelines. The interviews aimed to obtain information regarding: (1) forms of digitalization implemented; (2) benefits of digitalization for business operations; (3) the impact of digitalization on sales and service; (4) obstacles in implementing digital technology; and (5) strategies for developing digitalization in distribution outlet businesses.

b. Observation

The researchers conducted direct observations of the operational activities of 3 Kg LPG distribution outlets, including the customer service process, transaction recording, use of digital applications, and gas cylinder inventory management.



c. Documentation

Documentation was carried out by collecting various supporting documents such as photographs of business activities, sales records, inventory reports, evidence of digital application usage, and other documents related to the research.

Data Analysis Techniques

Data analysis employed the Miles, Huberman, and Saldaña (2020) model, which encompasses three concurrent flows of activity: (1) Data Reduction — selecting, simplifying, and categorizing data from interviews, observations, and documentation according to the research focus; (2) Data Display — organizing data in narrative, tabular, or matrix form to facilitate the researcher's understanding of relationships between findings; and (3) Conclusion Drawing and Verification — interpreting research results based on identified patterns, themes, and relationships, and re-examining data to ensure that the conclusions drawn are accountable.

3. RESULT AND DISCUSSION

General Overview of the Research Object

This research was conducted at MSME 3 Kg LPG Distribution Outlets under PT Pinang Baris Langit Biru, which function as official distributors of subsidized LPG to the public. The core activities of these outlets include receiving gas cylinder supplies from agents, storage, distribution to consumers, transaction recording, and daily inventory management. Based on interview results, the outlets have begun utilizing digital technology in their operational activities, including the use of smartphones, instant messaging applications (WhatsApp), non-cash payments using QRIS, social media as a means of disseminating information to customers, and digital sales recording using simple applications and spreadsheets.

Interview Results on Digitalization Implementation

Interview results revealed that all informants understood the importance of using digital technology to support business operations. Distribution outlet owners reported that digitalization provides convenience in managing customer orders, monitoring gas cylinder inventory, and accelerating communication with agents. Employees also stated that the use of digital applications reduces transaction recording errors compared to manual recording. Additionally, the service process has become faster because payments can be made both in cash and non-cash. Customers expressed that the ease of ordering gas through WhatsApp and the availability of digital payments have enhanced their transactional comfort.

Impact of Digitalization on MSME Performance

Based on the interview results, digitalization has produced several positive impacts on business performance:

a. Improvement in Operational Efficiency

The use of digital recording has facilitated LPG inventory management, reduced administrative errors, and accelerated the preparation of sales reports. Business operators reported that daily reconciliation of stock, which previously took considerable time with manual methods, can now be completed more quickly and accurately through digital spreadsheets and simple applications.

b. Enhancement of Service Quality

Communication through WhatsApp enables customers to obtain information regarding stock availability, pricing, and distribution schedules more rapidly. This has reduced customer waiting times and improved overall satisfaction with the outlets' services. The ability to receive orders through digital channels has also allowed outlets to serve a broader customer base beyond their immediate geographic vicinity.

c. Transaction Convenience

The implementation of QRIS provides a more practical payment alternative, eliminating the need for customers to always use cash. This has proven particularly beneficial during periods of high



demand when cash transactions can create bottlenecks. The digital payment records also provide an automatic audit trail that enhances financial transparency.

d. Improved Data Management

Transaction data is stored more systematically, enabling business owners to conduct sales evaluations and inventory planning more effectively. The availability of organized digital records allows for better trend analysis, demand forecasting, and strategic decision-making regarding stock procurement and distribution schedules.

Obstacles to Digitalization Implementation

Despite its numerous benefits, the study also identified several obstacles to digitalization implementation: (1) Limited capability in utilizing digital technology among some business operators and employees, particularly those of older age groups who are less familiar with digital applications; (2) Unstable internet connectivity at certain times and locations, which disrupts the smooth functioning of digital payment systems and real-time communication; (3) Some customers still prefer cash payments due to unfamiliarity with digital payment methods or concerns about transaction security; and (4) The absence of specialized training programs on digital technology utilization for MSME operators in the subsidized LPG distribution sector.

Discussion

The research findings demonstrate that digitalization positively influences the performance of MSME 3 Kg LPG Distribution Outlets. The use of digital technology has enhanced operational efficiency through more accurate transaction recording, better-organized inventory management, and more effective communication with both customers and agents. These findings also indicate that the utilization of digital applications has accelerated the service process. Customers can obtain information about LPG availability and place orders without having to physically visit the distribution outlet. Furthermore, the use of QRIS provides flexibility in the payment process, thereby increasing customer convenience.

Conversely, the study found that the success of digitalization is influenced by human resource readiness. Business operators who possess the ability to use technology can more easily optimize the benefits of digitalization compared to those who still rely on conventional systems. Therefore, the improvement of digital literacy becomes a critical factor in supporting MSME digital transformation. This finding aligns with the observations of Nugroho and Sari (2024), who emphasized that digital literacy constitutes a fundamental prerequisite for successful MSME digitalization.

The findings of this research are consistent with various previous studies asserting that digitalization can enhance productivity, operational efficiency, service quality, and MSME competitiveness (Prasetyo & Huda, 2023; Nugroho & Sari, 2024; Firadausi & Sujatmiko, 2025). Nevertheless, challenges such as limited digital infrastructure, low technological literacy, and inadequate facilities remain as barriers that require attention from the government and MSME support institutions.

Overall, the study demonstrates that the implementation of digitalization at 3 Kg LPG distribution outlets provides tangible benefits for business performance improvement. With the support of training, mentoring, and digital infrastructure development, the application of technology is expected to become increasingly optimal, thereby enhancing operational efficiency, service quality, and the sustainability of 3 Kg LPG distribution outlet businesses.

4. CONCLUSION

Based on the research findings, several conclusions can be drawn. First, digitalization has been implemented by 3 Kg LPG distribution outlet operators in various forms, including the use of instant messaging applications (WhatsApp) for receiving orders and communicating with customers, digital payments through QRIS, and digital transaction recording and inventory management. Second, the implementation of digitalization has a positive impact on the performance of MSME 3 Kg LPG



distribution outlets, as evidenced by increased operational efficiency, ease of sales data and inventory management, acceleration of customer service processes, and facilitation of non-cash transactions.

Third, despite its various benefits, digitalization implementation still faces several obstacles, including limited technological capabilities of business operators, uneven digital literacy, unstable internet network quality, and the continued preference of some customers for cash transactions. Fourth, overall, digitalization serves as a contributing factor to improving the performance of MSME 3 Kg LPG distribution outlets. However, the success of its implementation is significantly influenced by human resource readiness, digital infrastructure support, and the ability of business operators to utilize technology optimally.

Based on the research findings, the following recommendations are proposed: (1) Business operators should continue to improve the utilization of digital technology in their operational activities, such as using financial recording applications, inventory management systems, digital payments, and customer communication media to achieve more effective and efficient business management. (2) Customers are encouraged to utilize the digital services provided by distribution outlets, such as ordering through instant messaging applications and non-cash payments, so that transaction processes become faster, safer, and more practical. (3) Future researchers are advised to involve more informants and broader research areas to obtain a more comprehensive picture of the impact of digitalization on MSME performance, and may consider using quantitative approaches or mixed methods to strengthen research findings.

5. REFERENCES

- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Firadausi, A. R., & Sujatmiko. (2025). Analisis dampak kebijakan digitalisasi UMKM terhadap kinerja usaha mikro: Studi pada perusahaan Healthy Jus di Kota Malang [Analysis of the impact of MSME digitalization policy on micro business performance: A study at Healthy Jus company in Malang City]. *Jurnal Pendidikan Tambusai*.
- Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia. (2023). *Perkembangan data usaha mikro, kecil, dan menengah (UMKM) di Indonesia* [Development of micro, small, and medium enterprise data in Indonesia]. <https://kemenkopukm.go.id>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). SAGE Publications.
- Moleong, L. J. (2021). *Metodologi penelitian kualitatif* [Qualitative research methodology] (Revised ed.). PT Remaja Rosdakarya.
- Nugroho, A., & Sari, D. P. (2024). Digitalisasi UMKM sebagai strategi peningkatan daya saing usaha di era ekonomi digital [MSME digitalization as a strategy for enhancing business competitiveness in the digital economy era]. *Jurnal Manajemen dan Kewirausahaan*, 12(1), 45–58.
- Pertamina Patra Niaga. (2024). *Distribusi LPG 3 kg dan layanan pangkalan resmi* [3 Kg LPG distribution and official outlet services]. <https://pertaminapatraniaga.com>
- Prasetyo, H., & Huda, M. (2023). Transformasi digital pada usaha mikro, kecil, dan menengah: Tantangan dan peluang [Digital transformation in micro, small, and medium enterprises: Challenges and opportunities]. *Jurnal Ekonomi dan Bisnis Indonesia*, 18(2), 101–115.
- Republic of Indonesia Law Number 20 of 2008 concerning Micro, Small, and Medium Enterprises.
- Rijali, A. (2019). Analisis data kualitatif [Qualitative data analysis]. *Jurnal Alhadharah*, 17(33), 81–95.
- Sugiyono. (2023). *Metode penelitian kualitatif* [Qualitative research methods] (3rd ed.). Alfabeta.
- Yusuf, A. M. (2020). *Metode penelitian: Kuantitatif, kualitatif, dan penelitian gabungan* [Research methods: Quantitative, qualitative, and mixed research]. Kencana.