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Development of an E-Commerce Website Integrated with a Payment Gateway for Basreng RZQ Small and Medium Enterprise in Bandung

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Abstract: This study aims to develop an e-commerce website integrated with the Midtrans payment gateway for Basreng RZQ, a micro, small, and medium-sized enterprise (MSME) in Bandung. The study is motivated by operational challenges in reconciling daily transaction data due to the absence of an internal admin panel on the existing website. This condition has the potential to cause errors in manual bookkeeping and increase the workload of business operators. To address these problems, an e-commerce platform was developed to enable customers to order products and make digital payments without requiring account registration. The study employed a descriptive-evaluative qualitative case study with a lean architecture approach. Data were collected through observation, interviews, and documentation and were analyzed based on the transaction processes and operational needs of the MSME. Functional system testing was conducted using the black-box testing method based on ordering and payment verification scenarios. The results indicate that the integration of the Midtrans payment gateway supports automated payment verification and helps simplify transaction management. The developed system also provides a more structured alternative for recording transactions compared with manual bookkeeping. This study provides a practical solution for supporting the digitalization of sales and payment processes in MSMEs and may serve as a reference for developing e-commerce systems integrated with digital payment services.

Keywords: MSMEs; Website; Payment Gateway; Digitalization; Sales.

1. Introduction

Micro, small, and medium enterprises (MSMEs) play an important role in the Indonesian economy and provide employment opportunities across various business sectors. The development of digital technology has also changed the way MSMEs manage business activities, interact with customers, and conduct transactions. Digital transformation can support MSMEs in improving business processes and adapting to changes in market conditions. Research on Indonesian MSMEs shows that digital transformation is related not only to the use of digital tools but also to changes in financial and business practices (Wiyono & Kirana, 2021). The use of e-commerce and electronic payment services can further support MSMEs in expanding their market reach and improving transaction processes. Kilay *et al.* (2022), for example, found that e-payment and e-commerce services are associated with supply chain performance and provide implications for the digitalization of MSMEs in Indonesia.

The growth of online purchasing and digital payment services has created opportunities for MSMEs to provide more accessible purchasing channels. Customers can obtain product information, place orders, and complete payments without having to visit a physical store. The development of digital payment services is also relevant to small businesses because payment procedures that rely heavily on manual processes may require additional administrative work. Studies on Indonesian MSMEs have examined the factors associated with the adoption of mobile and digital payment services, including technological, organizational, and user-related considerations (Irianto & Chanvarasuth, 2025; Najib *et al.*, 2021; Nugraha *et al.*, 2022). Trust and perceived risk have also been identified as relevant considerations in the adoption of fintech payment services by micro-enterprises (Purwantini & Anisa, 2021). These findings indicate that digital payment systems can be considered as part of a broader effort to improve the transaction process of small businesses.

The use of e-commerce and digital payment services, however, does not automatically solve all operational problems faced by MSMEs. Business owners may still encounter difficulties in managing product information, recording orders, monitoring transactions, and maintaining consistent transaction records. The availability of a dedicated website can provide an alternative to relying solely on social media or third-party platforms. A website can provide a centralized location for product information, ordering, and payment, while also allowing business owners to manage transaction-related information in a more structured manner. Recent research on MSME website development has demonstrated the use of dedicated websites to support product promotion and sales activities (Multazam *et al.*, 2026). Other studies have also examined the use of e-commerce and QRIS as digital payment tools to support MSME sales performance (Wahyudin *et al.*, 2022).

Digital payment adoption is also influenced by the availability and convenience of payment methods. Research on QRIS and mobile payment has shown that digital payment systems have become an important part of the changing retail transaction environment (Mahyuni *et al.*, 2021; Sholihah & Nurhapsari, 2023; Yan *et al.*, 2021). Although these studies provide useful evidence concerning digital payment adoption, the focus is primarily on payment behavior, payment adoption, or the broader use of digital payment services. The present study addresses a different problem by focusing on the development of an e-commerce website in which the payment process is directly connected to the business transaction flow of an MSME.

Basreng RZQ, an MSME located in Bandung, is the specific case examined in this study. The business currently relies on conventional sales activities and social media for product promotion and customer interaction. Based on internal business information, these practices create operational difficulties in recording orders, managing stock information, and handling transactions in a consistent manner (Data Internal Basreng RZQ, 2023). The absence of a centralized e-commerce system also makes it more difficult to organize product information and transaction records. These conditions indicate a need for a digital sales channel that is adapted to the actual operational requirements of the business rather than simply adopting a generic e-commerce platform. The payment process represents another operational issue. When payment information is handled manually, the business owner needs to check transaction information and confirm payments separately. Such a process can increase administrative workload and create opportunities for recording errors. The integration of a payment gateway into an e-commerce website provides an alternative by connecting the ordering process with digital payment services. Previous studies have examined the use of fintech and digital payment systems among Indonesian MSMEs (Irianto & Chanvarasuth, 2025; Najib *et al.*, 2021; Nugraha *et al.*, 2022). However, the application of these technologies needs to be considered together with the specific business processes of the MSME concerned.

Previous research has also examined the development of websites and e-commerce systems for MSMEs. Multazam *et al.* (2026) developed an MSME website integrated with additional digital communication features to support product sales, while Kilay *et al.* (2022) examined the broader relationship between e-commerce, e-payment, and MSME performance. Wahyudin *et al.* (2022) investigated the use of e-commerce and QRIS in relation to MSME sales performance. These studies demonstrate the relevance of digital platforms and payment technologies for MSMEs. Nevertheless, there remains room for case-specific research that focuses on how an e-commerce website can be designed according to the operational conditions of a small food business and connected directly to a payment gateway.

The research gap in this study therefore lies not in the general development of e-commerce or digital payment systems, but in their application to the specific operational needs of a local food MSME. Previous studies have addressed e-commerce, fintech adoption, digital payment, and MSME websites from different perspectives (Irianto & Chanvarasuth, 2025; Kilay *et al.*, 2022; Najib *et al.*, 2021; Nugraha *et al.*, 2022). The present study focuses specifically on Basreng RZQ and develops an e-commerce website that integrates the Midtrans payment gateway into the ordering and payment process. This approach is intended to provide a more structured transaction process while reducing the dependence on manual transaction handling. The study aims to design and develop an e-commerce website integrated with the Midtrans payment gateway according to the operational requirements of Basreng RZQ in Bandung. The development process includes requirements analysis, system design, implementation, and functional testing. The study also examines how the developed system addresses existing problems in product ordering, transaction processing, and payment verification. The expected contribution is primarily practical, namely providing a digital sales and payment solution that can be applied to the operational context of Basreng RZQ. From an academic perspective, the study adds a case-based example of e-commerce and digital payment implementation in a small food MSME. The findings are expected to provide a reference for similar MSMEs that face difficulties in managing conventional sales and payment processes. Rather than assuming that digitalization produces the same outcomes for every business, this study emphasizes the relationship between system design and the actual operational requirements of the business. The resulting website is therefore developed as a case-specific solution for Basreng RZQ, with the Midtrans payment gateway serving as an integrated component of the online ordering and payment process.

2. Related Work

2.1 E-Commerce and Digitalization of MSMEs

E-commerce refers to the buying and selling of products or services through electronic networks, particularly the internet. For MSMEs, e-commerce provides an alternative sales channel that can support product promotion, customer interaction, and transaction processing without requiring customers to visit a physical store. The adoption of digital technologies has also become part of the broader transformation of MSME business processes. Wiyono and Kirana (2021) examined digital transformation among MSMEs in Indonesia and showed the importance of digital technology in supporting changes in business practices. In addition, Kilay *et al*. (2022) examined the relationship between e-commerce, e-payment, and supply chain performance among MSMEs, indicating that digital transaction technologies can support the development of MSME business activities. The use of an e-commerce website can provide a centralized channel for product information and ordering. Compared with relying solely on social media, a dedicated website can organize product information, customer orders, and transaction records within a single system. Website-based solutions are particularly relevant for small businesses that require a sales platform adapted to their own operational processes. Multazam *et al*. (2026), for example, developed a website-based solution for an MSME to support digital sales activities. This type of implementation demonstrates that website development can be used not only for product promotion but also as part of the digitalization of MSME business processes. Digitalization also affects the way MSMEs manage financial transactions. The use of electronic payment services can reduce dependence on manual payment procedures and provide customers with more convenient payment alternatives. Studies on fintech adoption have examined the use of digital financial technologies by SMEs and MSMEs in Indonesia (Irianto & Chanvarasuth, 2025; Nugraha *et al*., 2022). Najib *et al*. (2021) also examined fintech use among small food businesses, making their findings particularly relevant to the present study because Basreng RZQ operates in the food sector.

2.2 Payment Gateway in E-Commerce

A payment gateway is a technology service that connects an online transaction system with payment processing services and enables customers to complete payments through supported payment methods. In an e-commerce system, payment gateway integration can reduce the need for sellers to manually verify payment information and can make the payment process more structured. Digital payment adoption among MSMEs has been examined from several perspectives, including technological adoption, user acceptance, trust, and perceived risk (Irianto & Chanvarasuth, 2025; Purwantini & Anisa, 2021). The availability of multiple payment methods can also influence the convenience of online transactions. Research on QRIS and other mobile payment services shows that digital payment has become increasingly relevant to MSME transactions in Indonesia (Mahyuni *et al*., 2021; Sholihah & Nurhapsari, 2023). Yan *et al*. (2021) further discussed QR code-based and mobile payment practices, showing the broader development of digital payment technologies. Although these studies provide evidence concerning digital payment adoption, the present research focuses specifically on the integration of a payment gateway into an e-commerce website developed according to the operational requirements of a particular MSME. Payment integration is particularly relevant when transaction confirmation is still handled manually. Manual payment verification requires business operators to check transaction information and record payment status separately. The integration of a payment gateway can provide a more structured process for receiving payment information and updating transaction status. Wahyudin *et al*. (2022) examined the relationship between e-commerce, QRIS, and MSME sales performance, demonstrating the relevance of digital commerce and payment technologies to MSME business activities. However, payment technology should be considered as part of the overall transaction process rather than as an isolated feature.

2.3 Previous Studies

Previous studies have examined e-commerce websites, digital payment systems, and fintech adoption in different MSME and business contexts. Kilay *et al.* (2022) examined e-commerce and e-payment in relation to MSME supply chain performance, while Wiyono and Kirana (2021) focused on digital transformation among Indonesian MSMEs. Irianto and Chanvarasuth (2025) examined mobile payment adoption among MSMEs, and Nugraha *et al.* (2022) investigated factors associated with fintech adoption among SMEs. These studies establish the relevance of digital technologies for MSME business processes. Research on fintech in food-related businesses is also relevant to the present study. Najib *et al.* (2021) examined fintech use in small food businesses, providing a basis for considering digital financial technology within the operational context of food-related MSMEs. Multazam *et al.* (2026) examined the development of an MSME website to support digital business activities. These studies demonstrate that both website development and digital financial technology can contribute to the digitalization of small businesses. Other studies have examined digital payment adoption through QRIS. Mahyuni *et al.* (2021) discussed MSME intention to use QRIS, while Sholihah and Nurhapsari (2023) examined digital payment adoption and QRIS-related factors. Wahyudin *et al.* (2022) considered e-commerce and QRIS in relation to MSME sales performance. Purwantini and Anisa (2021) examined fintech payment adoption with attention to trust and perceived risk. Together, these studies show that digital payment is an important component of MSME digitalization, although their primary focus varies from payment adoption to business performance. The previous studies indicate that e-commerce and digital payment technologies have been investigated separately and in combination across different business contexts. However, there is still a need for case-based studies that examine the development of an e-commerce website according to the operational requirements of a specific small food business. In the case of Basreng RZQ, the main operational issues include the management of product orders, transaction records, and payment verification. The present study therefore focuses on developing an e-commerce website integrated with the Midtrans payment gateway to support the ordering and payment process of Basreng RZQ in Bandung.

2.4 Research Gap and Position of the Present Study

The literature reviewed above indicates three main areas of previous research. First, studies on e-commerce have examined the use of websites and digital platforms to support MSME sales and business processes (Kilay *et al.*, 2022; Multazam *et al.*, 2026). Second, research on fintech and digital payment has examined the adoption and use of mobile and electronic payment technologies among MSMEs (Irianto & Chanvarasuth, 2025; Najib *et al.*, 2021; Nugraha *et al.*, 2022). Third, research on QRIS and other digital payment technologies has considered factors such as adoption, trust, risk, and sales performance (Mahyuni *et al.*, 2021; Purwantini & Anisa, 2021; Wahyudin *et al.*, 2022). Despite these contributions, previous studies provide limited discussion of the development of a dedicated e-commerce website that is directly adapted to the transaction and operational requirements of a small local food MSME. In particular, the integration of an e-commerce ordering process with the Midtrans payment gateway can be examined as a practical solution for businesses that still depend on manual transaction handling. The gap addressed by this study is therefore application-oriented rather than a claim that e-commerce or payment gateway technology itself is new. Based on this gap, the present study develops an e-commerce website for Basreng RZQ in Bandung and integrates the Midtrans payment gateway into the ordering and payment process. The study focuses on the suitability of the system to the operational needs of the business, including product ordering, transaction processing, and payment verification. The resulting system is expected to provide a more structured digital sales process for Basreng RZQ and to provide a case-based reference for similar MSMEs considering the adoption of e-commerce and digital payment technologies.

Table 1. Summary of Previous Studies

Author(s)	Focus	Main Finding	Gap/Relation to This Study
Wiyono & Kirana (2021)	Digital transformation of MSMEs	Digital technology supports changes in MSME business practices	Does not specifically focus on e-commerce and payment gateway integration
Kilay *et al.* (2022)	E-commerce and e-payment in MSMEs	Digital commerce and payment are relevant to MSME performance	Does not specifically address Basreng RZQ's operational process
Najib *et al.* (2021)	Fintech in small food businesses	Fintech is relevant to financial activities of small food businesses	Does not focus on website-based e-commerce with Midtrans
Nugraha *et al.* (2022)	Fintech adoption among SMEs	Identifies factors associated with fintech adoption	Focuses on adoption rather than system development

Irianto & Chanvarasuth (2025)	Mobile payment adoption	Examines mobile payment adoption among MSMEs	Does not focus on e-commerce website development
Multazam *et al.* (2026)	MSME website development	Website development supports MSME digital business activities	Does not specifically address Basreng RZQ and Midtrans integration
Mahyuni *et al.* (2021)	QRIS adoption by MSMEs	Examines MSME intention to use QRIS	Focuses on QRIS rather than Midtrans
Purwantini & Anisa (2021)	Fintech payment, trust, and risk	Trust and perceived risk are relevant to fintech payment adoption	Does not develop an e-commerce system
Wahyudin *et al.* (2022)	E-commerce, QRIS, and MSME sales	Examines digital commerce and payment in relation to MSME sales	Uses QRIS rather than Midtrans
Sholihah & Nurhapsari (2023)	Digital payment and QRIS	Examines factors related to digital payment adoption	Does not focus on e-commerce system development

3. Methodology

3.1 Research Approach and Case Study Design

This study employed a qualitative approach using a case study design. The case focused on the development of an e-commerce website integrated with the Midtrans payment gateway for Basreng RZQ, an MSME located in Bandung. The case study design was selected to understand the operational conditions and business processes of Basreng RZQ, particularly the challenges related to sales, transaction management, and the need for digitalization. A qualitative approach was used to obtain information regarding the owner's experiences, perceptions, and expectations concerning the existing sales process and the proposed digital system. The approach enabled the researcher to examine the business process within its actual operational setting. The findings from this stage were used as a basis for identifying system requirements and determining the functions required in the e-commerce website. The study was conducted as a single-case study because the research focused specifically on Basreng RZQ rather than on a group of MSMEs. Therefore, the findings are interpreted within the context of the selected case and are not intended to represent all MSMEs.

3.2 Research Subject

The research subject was the owner of Basreng RZQ in Bandung, who was directly involved in managing the business operations. The participant was selected using purposive sampling based on predetermined criteria. The criteria included being the business owner or manager, having direct knowledge of the business processes, understanding the limitations of the existing sales system, and being able to provide information regarding the requirements for a digital sales system. The involvement of the business owner was considered appropriate because the owner had direct knowledge of the sales process, transaction management, product management, and operational problems experienced by Basreng RZQ. One participant was selected because the study focused on a single MSME case and required information directly related to the operational conditions of that business.

3.3 Data Collection

Data were collected through semi-structured interviews, direct observation, and documentation. These techniques were selected to obtain information about the existing business processes and the requirements for the proposed e-commerce system. Semi-structured interviews were conducted with the owner of Basreng RZQ. The interview questions addressed the existing sales process, ordering procedures, transaction management, stock management, payment methods, operational problems, and expectations regarding the proposed e-commerce website. The semi-structured format allowed the researcher to maintain the main research topics while providing flexibility to explore information that emerged during the interview. Direct observation was conducted to examine the actual sales activities of Basreng RZQ. The observation focused on the ordering process, product preparation and packaging, payment procedures, and interactions between the business and customers. Observation was used to compare the actual business process with information obtained from the interview. Documentation was used to examine available business records, including manual sales records, product information, and promotional materials used by Basreng RZQ. The documentation provided additional information about the existing transaction process and supported the identification of system requirements. The three data collection techniques were used in combination to obtain a more complete description of the operational conditions of Basreng RZQ.

3.4 Data Analysis

The qualitative data were analyzed using thematic analysis. The analysis followed stages adapted from the approach proposed by Braun and Clarke. The first stage involved transcribing the interview recordings and organizing the observation notes and relevant documentation into textual data. The researcher then conducted initial coding by identifying words, sentences, and statements related to the research objectives. The initial codes included information concerning operational problems, required system features, ordering procedures, payment methods, and stock management. The initial codes were subsequently grouped into broader categories. Examples of these categories included product management, ordering processes, transaction management, payment procedures, and stock management. The categories were then examined to identify themes that represented the main findings from the collected data. Several themes were identified, including the need for digitalization, the need for payment integration, and the need to improve transaction and stock management. The analysis was conducted iteratively by comparing the identified themes with the interview, observation, and documentation data. This process was intended to ensure that the themes remained consistent with the information obtained from the field and were relevant to the development requirements of the e-commerce website.

3.5 Data Validity

The credibility of the qualitative data was supported through triangulation and member checking. Triangulation was conducted by comparing information obtained from interviews with observations and available business documentation. For example, information concerning the sales and stock management processes obtained from the interview was compared with the results of direct observation and available written records. Because the study involved one main informant, the triangulation process focused on comparing different data collection methods rather than different informants. This approach was used to identify inconsistencies between reported practices and observed or documented conditions. Member checking was conducted by presenting a summary of the initial findings and interpretations to the owner of Basreng RZQ. The owner was given an opportunity to confirm whether the findings accurately represented the business conditions and operational requirements. This process was used to reduce misinterpretation and support the credibility of the qualitative findings.

3.6 System Development

The findings obtained from the qualitative analysis were used as the basis for identifying the functional requirements of the e-commerce website. The system development process consisted of requirements identification, system design, implementation, integration of the Midtrans payment gateway, and functional testing. The requirements were determined based on the operational problems and needs identified through interviews, observations, and documentation of the existing business processes. The system was designed to support the main sales activities of Basreng RZQ, including product presentation, product selection, order submission, checkout, payment processing, and transaction confirmation. The Midtrans payment gateway was integrated into the checkout process to facilitate digital payment and support payment verification. The developed system was designed according to the business requirements identified during the research process.

3.7 System Testing

The functionality of the developed e-commerce website was evaluated using black-box testing. The testing focused on the functional behavior of the system based on user inputs and the corresponding system outputs, without examining the internal source code. Test scenarios were developed according to the main transaction flow, including product selection, order submission, checkout, payment processing, and transaction verification. Each test scenario was executed by providing the specified input and comparing the resulting system response with the expected output. A function was considered successful when the actual output corresponded to the expected result. The testing results were documented based on the test scenarios and were used to evaluate whether the main functions of the e-commerce website operated according to the specified requirements.

4. Result and Discussion

4.1 Results

Basreng RZQ is a micro-scale food business located in Cicendo District, Bandung City. The business specializes in producing and selling fried meatball snacks (basreng) in several flavor variants. Daily operations are managed directly by the business owner, who is responsible for the main business activities, including raw material procurement, product preparation, frying, packaging, and distribution. Before the implementation of the e-commerce website, Basreng RZQ primarily relied on consignment sales through nearby small shops, word-of-mouth promotion, and manual orders through personal social media accounts. This sales model limited the availability of centralized product information and required the owner to manage customer inquiries and transaction records manually. The study involved one informant, namely the owner of Basreng RZQ. The selection of a single informant was consistent with the single-case design because the owner was directly responsible for the business operations and had knowledge of the existing sales process, transaction management, and operational problems.

Table 2. Informant Characteristics

Characteristic	Description
Gender	Female
Place of origin	Bandung
Residence status	Permanent resident
Professional role	Sole owner of Basreng RZQ
Business experience	Since the establishment of the business

The informant's direct involvement in the business provided information regarding the existing sales process, product management, payment procedures, and operational requirements. These findings were used as a basis for determining the functional requirements of the e-commerce website. The existing sales process at Basreng RZQ was characterized by limited market reach and predominantly manual transaction management. According to the interview findings, the business had difficulty reaching customers outside its immediate social and geographical network. Sales activities were mainly supported by nearby consignment outlets, word-of-mouth promotion, and direct communication through social media. The available sales records also showed differences in sales performance between product variants. The spicy variant generated monthly sales of approximately IDR 840,000, while the original variant generated approximately IDR 560,000. These figures indicate a difference in sales performance between the two variants and provide an initial basis for the business to consider product demand when planning production and promotional activities. The existing sales process also required the owner to respond manually to customer questions regarding product information, prices, production time, payment procedures, and delivery. This condition increased the owner's administrative workload and made transaction management less centralized. The findings are consistent with previous research indicating that digital commerce and electronic payment systems can support the digitalization of MSME business processes. Kilay *et al.* (2022), for example, examined the relationship between e-payment, e-commerce services, and supply chain performance in Indonesian MSMEs. Similarly, Najib *et al.* (2021) discussed the role of fintech in small food businesses and its relationship with open innovation. These studies provide a relevant basis for considering digital payment and e-commerce as supporting tools for MSME operations.

The identification of system requirements was based on the information obtained from interviews, observations, and business documentation. Several recurring customer inquiries were identified, particularly those concerning product ingredients, halal information, product prices, production time, production frequency, bulk-order arrangements, and delivery services. Based on these findings, the e-commerce website was designed to provide centralized product information. The product page contains information that enables customers to review the available products before placing an order. This reduces the need for customers to obtain basic product information through repeated direct communication with the business owner. The website also provides an ordering and checkout process that allows customers to select products, submit orders, and proceed to payment. The payment process was integrated with the Midtrans payment gateway to support electronic transaction processing. The implementation of e-commerce and electronic payment is relevant to previous findings concerning digitalization among Indonesian MSMEs. Wahyudin *et al.* (2022) found that the utilization of e-commerce and QRIS can support MSME sales performance through competitive advantage. Purwantini and Anisa (2021) also identified perceived risk and trust as factors related to fintech payment adoption among micro-enterprises.

The Midtrans payment gateway was integrated into the website to facilitate digital payment and transaction verification. The payment process allows customers to complete transactions electronically, while the system receives the payment status generated through the payment gateway. This integration addresses one of the main operational problems identified during the initial observation, namely the need to verify customer payments manually. By connecting the payment process with the website's transaction flow, payment status can be used as part of the order verification process. The use of digital payment is relevant to the findings of previous studies on fintech adoption among MSMEs. Irianto and Chanvarasuth (2025) examined the drivers and barriers of mobile payment adoption among Indonesian MSMEs, while Nugraha *et al.* (2022) discussed factors associated with fintech adoption and innovation among SMEs in Indonesia. These studies indicate that digital payment adoption should be considered in relation to both operational benefits and the ability of business users to adopt the technology. The implementation at Basreng RZQ therefore focuses not only on providing an additional payment option but also on connecting payment status with the ordering process. This integration reduces the need for separate manual verification within the transaction workflow.

The developed website also supports product and stock management. Product information is stored in the system database, while stock quantities can be updated according to transactions processed through the website. This function provides a more structured method of recording product availability than the previous manual process.The difference in sales between the spicy and original variants provides an initial indication that product demand is not evenly distributed. Therefore, transaction records generated through the website can be used by the business owner as supporting information when reviewing product demand and planning future production. The use of digital systems for transaction and business management is consistent with the broader findings of research on MSME digital transformation. Kilay *et al.* (2022) reported that e-commerce and e-payment services have implications for MSME supply chain performance, while Wiyono and Kirana (2021) discussed changes in the financial behavior of SMEs associated with digital transformation.

4.2 Discussion

The findings indicate that the developed e-commerce website provides Basreng RZQ with a centralized platform for product information, ordering, checkout, and digital payment. Before implementation, customers primarily obtained product information through direct communication with the business owner. The website changes this process by presenting product information in a centralized form and allowing customers to proceed directly to ordering. This finding is relevant to MSME digitalization because e-commerce can provide a sales channel beyond direct and local transactions. Wahyudin *et al.* (2022) reported a relationship between e-commerce, QRIS utilization, and MSME sales performance through competitive advantage. However, the present study does not provide sufficient before-and-after sales data to conclude that the website has increased sales volume or expanded the market to a national scale. Its main contribution is therefore the improvement of the sales process and centralized product information. The integration of the Midtrans payment gateway provides a more structured transaction process by connecting checkout, digital payment, and payment verification. This finding is consistent with research on digital payment adoption among MSMEs. Purwantini and Anisa (2021) emphasize the relevance of perceived risk and trust in fintech payment adoption among micro-enterprises, while Irianto and Chanvarasuth (2025) identify factors influencing mobile payment adoption among Indonesian MSMEs. For Basreng RZQ, the payment gateway is therefore part of the transaction workflow rather than merely an additional payment option. It can reduce the need for separate manual payment verification, although the actual reduction in transaction-processing time requires quantitative before-and-after measurements.

The integration of product and transaction data also provides the owner with a more structured record of sales activities. The difference in monthly sales between the spicy variant (IDR 840,000) and the original variant (IDR 560,000) can serve as an initial reference for evaluating product demand. However, the available data are insufficient to conclude that the system has reduced production waste, prevented expired inventory, or stabilized revenue. Such claims require additional post-implementation data. The role of digital systems in supporting MSME operations is consistent with Kilay *et al.* (2022), who associated e-commerce and e-payment services with MSME supply chain performance, and Najib *et al.* (2021), who examined fintech use in small food businesses and its relationship with innovation. The adoption of the website can also be interpreted from the perspective of the Technology Acceptance Model (TAM). The system is designed to simplify product ordering and payment, which conceptually relates to perceived ease of use and perceived usefulness. However, this study did not quantitatively measure TAM variables. Therefore, TAM serves as an interpretive perspective rather than a tested theoretical model. Previous studies have applied TAM-related perspectives to digital payment adoption among Indonesian users and MSMEs, including Gunawan *et al.* (2023), Najib and Fahma (2020), and Sholihah and Nurhapsari (2023).

The contribution of this study is best positioned as a case-based implementation of e-commerce and digital payment for a micro-scale food business. The developed system provides the infrastructure for centralized product information, ordering, payment, and transaction recording, while the existing sales data can serve as a baseline for future evaluation. Further research should compare transaction volume, processing time, payment verification time, and sales revenue before and after implementation to provide stronger evidence of the system's operational impact.

5. Conclusion and Recommendations

The development of an e-commerce website integrated with a payment gateway provides Basreng RZQ with a centralized digital platform for product information, ordering, checkout, and payment processing. The system addresses several limitations identified in the existing sales process, particularly the limited marketing reach, reliance on direct communication, and manual transaction management. Through the website, Basreng RZQ can present product information, prices, ordering procedures, delivery options, and payment methods in a more structured manner. The platform also provides an opportunity to reach customers beyond the business owner's immediate social network and local customer base, although the extent of market expansion still requires further evaluation using post-implementation sales data. The integration of the Midtrans payment gateway provides a more structured transaction process by connecting checkout, digital payment, and payment verification. The availability of several electronic payment options can make transactions more convenient for customers and reduce the need for separate manual payment verification by the business owner. The system also provides more organized transaction records that can support the management of sales activities. However, claims regarding reductions in transaction-processing time and manual recording errors should be confirmed through quantitative comparisons before and after implementation. The website also addresses the need for centralized product information. Customers can access information regarding product characteristics, prices, production time, delivery options, shipping costs, estimated delivery time, product ingredients, halal status, and bulk-order options through the website. This reduces the need for repeated inquiries and supports a more organized interaction between the business and its customers. Nevertheless, improvements in customer trust, purchase decisions, and shopping experience should not be interpreted as measurable outcomes unless they are supported by specific customer data.

The available sales data, including the difference in monthly revenue between the spicy and original variants, provide an initial basis for identifying product demand. However, the current study does not provide sufficient before-and-after evidence to conclude that the website has significantly increased transaction volume or revenue. Therefore, the primary contribution of this study is the implementation of an e-commerce and digital payment system adapted to the operational needs of a micro-scale food business. The developed system also provides a foundation for collecting more structured transaction data that can be used for future business evaluation.

For further development, Basreng RZQ should consistently record transaction volume, sales revenue, payment-verification time, transaction-processing time, and customer orders before and after the implementation of the website. These data can be used to evaluate the actual operational and financial impact of the system. Additional features, such as automated stock monitoring, sales reports, delivery tracking, customer feedback, and customer accounts, may also be considered based on the business's operational needs and available resources. The combination of digital and conventional payment methods may be maintained to accommodate different customer preferences during the transition to digital transactions.

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