

Digital Transformation in Local Trade: A Study of Perceptions among E-Commerce Sellers and Consumers

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Abstract

Digital transformation has brought significant changes to the local trade ecosystem in Indonesia, including Bone Regency. This study aims to explore the readiness of MSME sellers and consumer perceptions of empowerment features in e-commerce platforms, using a phenomenological qualitative approach. A total of 10 sellers and 10 consumers who are active on the Shopee, Tokopedia, and TikTok Shop platforms were interviewed in depth, supported by virtual observation and document analysis. The results of the study indicate that the digital readiness of sellers is influenced not only by the availability of devices and networks but also by digital literacy, innovative promotional strategies, self-learning, and support from family and community. Sellers who can adapt creatively and actively across platforms are more likely to thrive in the competitive digital market. On the consumer side, features such as promotions, free shipping, ratings, reviews, and ease of returns are key factors in empowering and building trust. A preference for local products also grows stronger when supported by a good digital reputation and responsive customer service. However, there are challenges in the form of unequal access to digital training and the need for platform policy innovations that are more friendly to local MSMEs. This study emphasizes the importance of strengthening digital literacy, cross-actor collaboration, and inclusive strategies to ensure that digital transformation is effective, inclusive, and sustainable at the local level.

Keywords: Digital Transformation, MSMEs, E-Commerce, Consumer Empowerment, Local Trade

1. Introduction

Digital transformation has become the primary catalyst for changes in global economic patterns, particularly in the trade sector ([Wysokińska, 2021](#); [Yufriadi et al., 2024](#)), which increasingly relies on technological innovation and digital connectivity ([Demestichas & Daskalakis, 2020](#); [Saba et al., 2024](#)). The development of e-commerce as a concrete manifestation of trade digitalization has not only impacted urban areas ([Carreras & Frago, 2022](#); [Indah et al., 2024](#); [Nahiduzzaman et al., 2021](#)). Still, it has also begun to penetrate local and rural regions, as

observed in the Bone Regency, South Sulawesi. According to data from the Communication and Information Office (Kominfo) for 2023, in Bone Regency, over 5,000 SMEs in the region have utilized digital platforms such as Shopee, Tokopedia, and TikTok Shop to expand their market reach ([Dwiyanti et al., 2024](#)). On the consumer side, there has been an increase in online transaction participation, especially since the COVID-19 pandemic accelerated the adoption of digital technology in daily life ([Fitra R, 2023](#); [Sunarti et al., 2023](#)).

The shift in preferences among the public, particularly among the younger generation and the middle class, from conventional shopping to e-commerce platforms, indicates a transformation of the local trade ecosystem ([Indah et al., 2024](#); [Sharma et al., 2023](#); [Song et al., 2022](#)). However, this transition is also marked by various challenges, ranging from the technological readiness of business actors to limited digital literacy and suboptimal adaptation strategies ([Arjang et al., 2025](#); [Hartatik et al., 2023](#)). On the other hand, consumers also face issues of trust, information transparency, and online transaction security ([Chellappa & Pavlou, 2002](#); [Islam, 2024](#); [Santos et al., 2023](#)).

Therefore, the research questions focus on two main issues: (1) How prepared are local sellers in Bone Regency to face digital transformation through e-commerce according to the Digital Transformation Readiness (DTR) perspective? and (2) How do consumers perceive empowerment features in e-commerce platforms and their influence on transaction decisions in the same region? This research is essential because it provides an empirical, context-based understanding of the dynamics, challenges, and opportunities for strengthening the digital economy, while enriching the literature, which has so far been concentrated in urban areas or on technological aspects alone ([Gao et al., 2023](#); [Sutinen et al., 2022](#)).

A phenomenological qualitative approach was chosen to capture the subjective meanings and authentic experiences of e-commerce sellers and consumers at the local level. This is relevant to the needs of contemporary literature, which demands a deeper understanding of the digitalization process in the economy from the perspective of actors, rather than relying solely on surface-level statistical data ([Braun & Clarke, 2006](#); [Creswell & Creswell, 2018](#)). In the long term, the findings of this study are expected to serve as a reference for local governments, SME advisors, and digital platform developers in designing more contextual, inclusive, and empowering digital transformation strategies.

2. Literature Review

2.1. E-Commerce Adoption Models and Gaps

Previous studies on e-commerce adoption in Indonesia have primarily employed classical models, such as the Technology Acceptance Model (TAM), which focuses on individual perceptions of ease and benefits ([Davis, 1989](#); [Venkatesh et al., 2022](#)). This approach is considered too normative and fails to fully capture the social and organizational dynamics influencing the digital transformation process in the SME sector, particularly in non-metropolitan areas ([Basu et al., 2023](#); [Silva et al., 2022](#)). Furthermore, previous studies have been limited to descriptive analyses of the impact of social media or brand image on SME business performance, without examining digital readiness and consumer empowerment more holistically ([Ananda, 2022](#); [Kumar et al., 2022](#)).

2.2. Digital Transformation Readiness (DTR) and Consumer Empowerment

Aware of these limitations, this study adopts two contemporary conceptual frameworks—

Digital Transformation Readiness (DTR) ([Vial, 2019](#)) to explore seller readiness, and the Consumer Empowerment Framework (CEF) ([Labrecque et al., 2013](#)) to analyze consumer perceptions and experiences within the e-commerce ecosystem. DTR highlights digital readiness not only from a technical perspective but also from organizational and cultural adaptation aspects. At the same time, CEF emphasizes the importance of digital features (reviews, ratings, transparency) as consumer empowerment mechanisms that influence online shopping behavior.

2.3. The Need for a Holistic Perspective in Local E-Commerce Research

The imbalance between technological advancement and business or consumer readiness creates an adaptation gap that can hinder digital economic inclusion at the local level ([Akpe et al., 2023](#); [Ubogu, 2025](#)). Therefore, this research integrates both DTR and CEF frameworks to provide a more holistic understanding of the local e-commerce transformation process. By doing so, this study aims to enrich the literature, which has so far been concentrated in urban areas or focused solely on technological aspects ([Gao et al., 2023](#); [Sutinen et al., 2022](#)).

3. Research Method

This study employs a qualitative approach with a phenomenological design to explore the experiences, perceptions, and adaptation strategies of sellers and consumers within the local e-commerce ecosystem in Bone Regency. This approach was chosen because it allows researchers to explore subjective meanings, interaction dynamics, and digital transformation processes that cannot be explained by statistics alone. The research subjects consisted of two main groups: MSME sellers active on e-commerce platforms (such as Shopee, Tokopedia, and TikTok Shop) and consumers who had made regular online transactions. Participants were selected using purposive and snowball sampling to ensure diversity in terms of background, business scale, digital experience, age, and education level.

A total of 10 sellers and 10 consumers were included in the study, with the final number adjusted to achieve data saturation, i.e., when no new interviews yielded significant insights or themes. Data collection was conducted through semi-structured in-depth interviews, virtual observation of sellers' activities on e-commerce platforms, and documentation of consumer interactions and online reviews.

The interview guide was designed based on two main frameworks: the Digital Transformation Readiness (DTR) framework for sellers and the Consumer Empowerment Framework (CEF) framework for consumers. Interviews were conducted in person or online (using Zoom/WhatsApp calls) to accommodate participants' preferences, and the entire process was recorded with permission and transcribed verbatim to ensure data accuracy. Virtual observations were used to observe promotional patterns, sellers' responses to reviews, and the use of digital features (such as chat, ratings, vouchers, or live streaming). Additionally, document analysis was conducted by reviewing local e-commerce policies, Diskominfo reports, and supporting regulations for digital SMEs in Bone.

Data analysis is conducted thematically using open, axial, and selective coding techniques as recommended by [Braun & Clarke \(2006\)](#). Data from interview transcripts, observations, and documents were processed in several stages: repeated reading, initial coding to identify main themes, development of a category matrix, and in-depth interpretation by comparing patterns of findings across participants and groups. Data validity was ensured through the triangulation of techniques (interviews, observations, and documents), the triangulation of sources (sellers

and consumers from various segments), and member checking, which involved confirming findings with several key informants. Peer debriefing was also conducted through discussions with colleagues to ensure interpretations were unbiased and research findings were more objective.

Throughout the research, ethical principles were upheld, including obtaining informed consent, maintaining participant anonymity and data confidentiality, and ensuring equitable treatment of all informants without discrimination. The researcher also ensured participants' comfort during the interview process and explained the purpose and benefits of the research from the outset of the interaction. With its systematic design, techniques, and validation, this study is expected to provide a comprehensive and contextual understanding of the dynamics of digital transformation in local trade from the perspectives of business actors and consumers in the digital economy era.

4. Result and Discussion

4.1. Local sellers' readiness to face digital transformation through e-commerce according to the Digital Transformation Readiness (DTR) perspective

4.1.1. Technological readiness

4.1.1.1 access to Devices and Networks

The technological readiness of local sellers in Bone Regency is evident from the ease of access to key devices—such as smartphones, laptops, and home Wi-Fi networks—which are consistently used for online store operations. All informants emphasized that the availability of devices and stable internet access greatly supports the smooth management of inventory, promotions, and customer service. This is illustrated in the following statements:

“We use Wi-Fi for our network.” (AS)

“I use a smartphone to monitor the store and a laptop to manage promotions.” (IR)

“An Android phone and home Wi-Fi.” (IB)

“I use a smartphone and laptop, as well as my home internet network (Wi-Fi).” (AN)

“I use my phone and home Wi-Fi. If the signal is bad, I use my phone data.” (RN)

Support from field data further reinforces these findings:

“The store layout is organized and easy to navigate.”

“Adequate lighting.”

“Product placement makes it easy for visitors to find the products they want.”

These notes confirm the readiness of physical technology and good store layout at MSME locations, facilitating digital activities for both sellers and buyers.

This sub-theme shows that sellers in Bone are already able to meet the basic prerequisites for digital transformation, namely adequate work devices and network access. This readiness plays a crucial role in maintaining business continuity, promoting professionalism, and creating a comfortable and efficient online shopping experience for customers.

4.1.1.2 technical obstacles and solutions

Despite being supported by good devices and networks, sellers still face various technical

obstacles, such as application errors, unstable internet signals, or difficulties uploading products. Generally, these obstacles are overcome independently, either by restarting the device, searching for tutorials on YouTube, asking for help from family members, or contacting the platform's customer service or seller community. The following are real explanations from various informants:

“Yes, the application suddenly had an error, or orders could not be processed. Usually, I immediately contact the platform’s customer service, but sometimes I also look for solutions through forums or seller communities.” (RI)

“Yes, usually I restart my cell phone or ask my child for help.” (BI)

“Yes, for example, the app crashed or the internet connection was slow. I usually restart the device or contact the platform’s customer service.” (NA)

“Yes, the app crashed, or I couldn’t upload the product. I usually look for tutorials on YouTube or TikTok.” (NR)

“Yes, the connection was lost during live selling. I usually restart and continue promoting.” (SA)

Support from field notes:

“Active status/responsive store.”

“Average response time is 2-5 minutes.”

“Message response is fast and timely.”

These notes demonstrate that sellers are still able to maintain store operations, respond promptly to customer inquiries, and deliver excellent service despite daily technical challenges.

This sub-theme highlights the seller’s ability to adapt to unavoidable digital challenges. Independence in resolving technical issues, internal team support, and a willingness to learn independently are key assets in maintaining online store performance. This proactive and flexible attitude is crucial for maintaining customer satisfaction and business sustainability, while also indicating strong digital readiness at the grassroots level of SMEs.

4.1.2 Adaptation and innovation strategies

4.1.2.1 sales promotion and innovation

Local sellers in Bone Regency have demonstrated creative and dynamic adaptation strategies in marketing their products on e-commerce platforms. Almost all active sellers utilize various forms of promotions, such as significant discounts, flash sales, live selling, and creating engaging content, including unboxing videos, aesthetically pleasing product photos, and offering free shipping vouchers, to attract both new buyers and returning customers. Special occasions—such as religious holidays or the end of the year—are utilized to boost sales. This is evident in the following quotes:

“Clear out the warehouse with discounts of up to 50%-70% during the period leading up to Eid al-Fitr or the New Year.” (AS)

“I regularly participate in flash sales provided by the platform, offer discount vouchers, and conduct live selling.” (RI)

“Use discounts and occasionally live selling.” (IB)

“Frequently use discount promotions and product bundling. Sometimes also participate in live selling features.” (NA)

“Create unboxing content, take aesthetic photos of cakes, and frequently offer free shipping vouchers.” (RN)

Field notes reinforce these innovations:

“Promotional banners are placed in strategic locations.”

“There are discounts for customers (vouchers, discounts).”

“Live selling, flash sales, direct interaction with customers.”

These notes indicate that sellers' promotional strategies are highly active, varied, and integrated with digital platform features to foster consumer engagement.

This sub-theme demonstrates that sellers can effectively utilize all digital features as a form of adaptation amid online market competition. Innovation in promotion, offers, and active customer interaction are key to attracting buyers and maintaining customer loyalty.

4.1.2.2 digital literacy and learning process

Most sellers began their digital journey self-taught, learning through tutorials on YouTube, TikTok, or from seller communities and MSME training programs. The learning process is ongoing as e-commerce features evolve, ensuring that sellers are always up to date and responsive to changing trends. Here are some quotes that illustrate this process:

“I learn through tutorials available on social media such as YouTube or TikTok.” (SA)

“At first, I learned on my own, trying out all the features. If there was something I didn't understand, I looked for tutorials on YouTube or joined a seller community group.” (IR)

“I learned from YouTube and SME training.” (BA)

“I am self-taught by watching tutorial videos on YouTube, reading guides from the platform, and asking the seller community.” (AN)

“If I am confused about a new feature, I usually ask the seller in the WhatsApp group.” (NR)

This sub-theme highlights the significance of high digital literacy in facilitating the transformation of local MSMEs. A proactive attitude in learning, finding solutions, and utilizing digital communities enables sellers to become more independent and prepared to compete in a rapidly evolving digital ecosystem. A continuous learning process also ensures that sellers can continually adapt to new technological innovations.

4.1.2.3 cross-platform promotion

Sellers' promotional strategies are not limited to a single platform but are carried out across multiple digital channels, including Instagram, TikTok, and WhatsApp. Sellers utilize social media not only to attract new buyers but also to retain existing customers through catalogs, product updates, and daily interactions. This cross-platform engagement is evident in the statements of the informants:

“We recently conducted sales promotions through IG, WhatsApp, and TikTok.” (AS)

“I use Instagram and TikTok to attract buyers to my online store. I also actively share catalogs on WhatsApp with existing customers.” (IR)

“Yes, promotion through IG, WhatsApp, and TikTok.” (IB)

“Yes, I actively promote on Instagram, TikTok, and WhatsApp.” (AN)

“Yes, very active on TikTok, IG, and WhatsApp. They all support each other.” (RN)

Field notes further reinforce these findings:

“TikTok: Yes, for product offers and live sales.”

“Shopee Video: Yes, for showcasing products and increasing engagement.”

“Affiliate: Yes.”

These notes confirm that multichannel promotion is being carried out in practice and has become an integral part of sellers’ daily activities.

This sub-theme highlights the advantage of local sellers who can simultaneously adapt to various digital promotional channels. The ability to manage cross-platform promotions not only expands the market and increases engagement but also strengthens brand awareness and fosters personal interaction with customers. The willingness to remain active across multiple platforms demonstrates a high level of digital adoption and innovation among UMKM sellers in Bone Regency.

4.1.3 Organizational or external support

4.1.3.1 training and mentoring

External support in the form of training, digital marketing classes, and mentoring from the government, communities, and marketplaces has begun to be felt by some sellers. However, not all MSME players have had access to this training.

Some have learned entirely on their own, while others have utilized training and mentoring as a way to accelerate their digital adaptation process. Here are some testimonials from various informants regarding their experiences:

“Never.” (AS)

“Yes, there was training from the local government on how to use e-commerce features.” (RI)

“Yes, I have participated in training from the community.” (IB)

“Yes, I participated in MSME training held by the local government and received assistance from the marketplace.” (AN)

“I have participated in training from the local cooperative office. I learned the basics of digital marketing.” (NR)

This sub-theme highlights the gap in access to training and assistance among sellers. For those who have attended training, the benefits are very noticeable, especially in understanding platform features, digital marketing strategies, and increased confidence in competing online. However, for sellers who have never received training, the digital adaptation process is slower and relies on trial and error. This indicates the need for equitable access to training and ongoing support from various parties, ensuring that digital transformation readiness is felt evenly across all SMEs.

4.1.3.2 support from teams and families

The management of online stores at the MSME level in Bone Regency is also greatly influenced by the support of family, spouses, or admin teams. The division of tasks among family members—from packaging and shipping to product uploading and customer service—is a major strength in ensuring the smooth operation of online stores, especially when order volumes increase. Informants provided the following insights:

“I divide these tasks among employees or the admin team, each with their own responsibilities.” (SA)

“For now, I manage it myself, but my family often helps when there are many orders or when managing inventory.” (IR)

“My siblings and spouse help me manage the store.” (IB)

“My family helps me with packaging and shipping.” (NA)

“Yes, my younger sibling and friends help me upload products and respond to customer chats. I handle production myself.” (RN)

Field notes support this sub-theme with direct observations:

“The customer service team is quick and responsive.”

These notes demonstrate evident human resource readiness, as evidenced by efficient customer service, a clear division of roles, and effective collaboration within the business environment.

This sub-theme demonstrates that the resilience of MSMEs to the dynamics of the digital market stems not only from individual business owners but also from the social support and small teams surrounding them. Internal collaboration is key, whether it involves maintaining service quality, speeding up customer responses, or managing high order volumes during promotions. With a system of sharing and mutual assistance, MSMEs in Bone are able to run their online stores professionally, even though they are still on a small scale. This finding highlights the importance of empowering internal teams and families to enhance digital readiness within the local MSME sector.

4.1.4 Attitudes towards digital change

4.1.4.1 perceptions of the benefits of e-commerce

The majority of local sellers in Bone Regency have a very positive perception of the benefits of e-commerce. They believe that online stores and the use of various digital platforms provide opportunities to expand their market, save on operational costs, and enable their businesses to run more flexibly and efficiently. Many sellers also acknowledge that e-commerce has made the marketing process easier and opened up access to buyers from outside the region without time or location restrictions. The following statements confirm this experience:

“It has had a big impact, because nowadays people are on their phones more often... we can attract customers by updating our social media.” (AS)

“Selling online is very profitable because the market is wider and operations are more flexible.” (RI)

“Selling online is more practical and cost-effective.” (BI)

“At first I felt hesitant and confused, but now I am more accustomed to it and feel that this change has helped my business grow.” (AN)

“The market is wider and it can be open 24 hours a day.” (RN)

“Now customers are not only from Bone, but also from outside Sulawesi.” (IB)

“Orders can come in at any time, making it easier to manage my time.” (NA)

Field notes reinforce this evidence:

“Language style: Easy to understand and interesting. Informal and friendly.”

“Use of emoticons: gives a friendly and humorous impression.”

“The interaction is warm and friendly.”

These notes enhance the sellers’ appeal and demonstrate that they have adopted a communicative, adaptive, and customer-oriented approach to digital transformation.

This sub-theme reveals that sellers in Bone are not only able to leverage the practical benefits of e-commerce but have also successfully established closer and more interactive relationships with their customers. The use of friendly language, an engaging communication style, and flexible operating hours is are key strategies for strengthening customer loyalty and satisfaction. This indicates mental readiness, openness, and positive acceptance of digital change, which are important foundations for the sustainability of MSMEs in the era of digital transformation.

4.1.4.2 challenges and optimism

Behind the benefits and convenience of e-commerce, sellers also face several complex challenges, including increasing platform administration costs, intense price competition with large sellers, and the need to adapt to developments in digital platform features and algorithms continuously. However, despite these challenges, the majority of sellers remain optimistic and intend to continue selling online, with the hope of strengthening their branding and stabilizing their business in the future. The following are some of their experiences:

“The current challenge is that e-commerce administration costs, such as Shopee, are increasing.” (AS)

“The biggest challenge is intense price competition, especially with large sellers.” (RI)

“I feel the challenges: competition and technological adaptation.” (IB)

“The biggest challenges are price competition and maintaining service quality.” (AN)

“Competing on price with large sellers and having to understand the platform's algorithms.” (NR)

“Of course, because digital sales greatly affect the online market, large online businesses will certainly, God willing, also be large offline.” (SA)

“I want to continue selling online while improving branding and diversifying products to make the business more stable.” (IR)

“Want to add product variants to stay competitive.” (NA)

Field notes support these findings:

“Average response time to messages is 2–5 minutes.”

“Complaint handling: solutions provided satisfy customers.”

These notes demonstrate that, despite facing competitive pressures and platform changes, sellers remain adaptable, maintain service quality, and continue to seek solutions to survive and thrive in the digital ecosystem.

This sub-theme highlights the dualistic dynamics of sellers’ attitudes: on one hand, they are optimistic about e-commerce opportunities; on the other hand, they remain vigilant and critical in the face of external challenges. Adaptation, flexibility, and a commitment to continuous learning are essential assets for thriving in the rapidly evolving digital industry. These findings also emphasize the need for a supportive ecosystem and platform policies that prioritize SMEs, ensuring the long-term sustainability of local businesses.

4.2 Consumer perceptions of empowerment features in e-commerce platforms and their influence on transaction decisions

4.2.1 Utilization of digital features

4.2.1.1 platforms and favorite features

Consumers in Bone Regency exhibit a strong tendency to shop on e-commerce platforms that offer empowering features, such as promotions, free shipping, easy navigation, flexible payment options, and a wide variety of products. Shopee is the most popular platform, followed by Tokopedia and TikTok Shop, mainly because consumers find these platforms easy to use for searching and purchasing items at competitive prices with regular promotions. The following quotes from informants illustrate this:

“I use Shopee the most because it’s more comprehensive and offers many free shipping promotions. Additionally, I’m already familiar with the interface, so finding products is easier, and there’s a voucher feature. The payment system is also convenient, offering COD, bank transfer, and e-wallet options, making it more flexible.” (EA)

“I use Shopee and Tiktok shop the most because they have a wide selection of products, competitive prices, and many free shipping promotions.” (UN)

“The most frequently used e-commerce platforms are usually Tokopedia, Shopee, or Bukalapak. The main reasons for choosing these platforms are the wide variety of products, ease of use of the application, and attractive promotions and discounts. In addition, fast payment and delivery systems are also important factors.” (SI)

Field notes support these findings:

“Promotional banners, attractive visual designs, images, and colors are in line with the target audience.”

“Big promotions are displayed on the main page, making it easy for consumers to choose.”

These notes confirm the importance of visuals and promotional features as the primary factors in consumers' decisions to choose platforms and online stores.

This sub-theme suggests that consumer empowerment features, such as promotions and free shipping, have a significant influence on preferences and transaction decisions. Platforms with user-friendly interfaces and visually appealing designs are more preferred, as they create a practical and enjoyable shopping experience. This also highlights that consumer empowerment in the digital era heavily depends on the ease of access, added value, and transparency of

features offered by e-commerce platforms.

4.2.1.2 Use of review, rating, and voucher features

Product review and rating features are among the most crucial aspects that influence consumer decisions before purchasing. Almost all consumers admit to constantly checking other buyers' reviews and store ratings, even considering reviews as the primary determinant in choosing products and sellers. The absence of reviews or poor ratings can make consumers hesitant to make transactions. The following are quotes from several informants:

“Reviews and ratings are very helpful for me to find out about product quality from other buyers' experiences.” (RA)

“Reviews and ratings are the first things I check before buying a product.” (SM)

“Always, I even like to look for photos or videos from buyers so I can see the actual condition of the product.” (CA)

“I almost always pay attention to reviews and ratings because they are very helpful in seeing the quality of the product and the experiences of other people who have purchased it.” (NI)

Field notes add to this evidence:

“All reviews are responded to politely and professionally.”

“Review responses average 1-2 days.”

“Consumers often read reviews before checkout.”

Sellers' quick and professional responses to reviews increase consumers' trust and comfort in transactions.

This sub-theme reveals that reviews and ratings are not merely supporting features but have evolved into instruments of consumer trust and control on digital platforms. Consumers' ability to evaluate products based on the experiences of other buyers encourages transparency and prevents fraud. Sellers' active responses to reviews also strengthen their professional image and build customer loyalty.

4.2.1.3 Involvement in reviews

In addition to being readers, most consumers are also active in writing reviews after a transaction, whether they are satisfied or disappointed with the product they received. They believe that the reviews they write will help other buyers make decisions. This active involvement also shows a participatory digital culture among consumers. The following are quotes from several informants:

“I often read reviews and occasionally write reviews. Reading reviews helps me make purchasing decisions so I don't choose the wrong product.” (DA)

“I often read reviews and sometimes write reviews if the product is good or disappointing.” (NI)

“I often read reviews to get a clearer picture of the product. Sometimes I also write reviews if I find the product very satisfying or, conversely, disappointing. The reviews I read and write help build a community of buyers who share experiences and increase transparency.” (SI)

This sub-theme highlights the high level of consumer awareness of their role and contribution

to the e-commerce ecosystem. The culture of openness and participation through reviews fosters a social control system in the digital realm, while also incentivizing sellers to improve their services and product quality continually. Active consumer involvement in writing reviews also accelerates the dissemination of relevant, transparent, and trustworthy information to potential buyers.

4.2.2 Information transparency and consumer control

4.2.2.1 product information

Consumers in Bone Regency generally feel that the product information displayed on e-commerce platforms—ranging from prices and sizes to descriptions and photos or videos—is clear and easily accessible. However, they still highlight that not all sellers provide sufficient details; sometimes, there is only one photo or a very brief description. This is a particular concern for consumers when making purchasing decisions. The following quotes illustrate this perception:

“Some provide very complete information, even unboxing videos. But many only provide one photo without detailed descriptions. This makes me hesitate when buying.” (AC)

“Generally quite clear, especially in trusted stores. But there are also stores with incomplete or insufficient information.” (UN)

“Most products have clear information, especially if there are detailed descriptions and complete photos.” (SA)

“Generally quite clear, especially if the seller provides detailed descriptions and images that match the product.” (RA)

Field notes reinforce this evidence:

“The visual design is attractive and easy to navigate. Product information is easy to find.”

“Communication style: informal and relaxed.”

“Product photos are arranged in a way that makes it easy for consumers to find the details they need.”

The visual layout of the store and the relaxed communication style make consumers feel more comfortable and enable them to find the information they want easily.

This sub-theme emphasizes the importance of transparency and completeness of product information in fostering trust and facilitating informed decision-making for consumers. The more complete and precise the information provided, the higher the likelihood that the product will be chosen and trusted by consumers. Sellers who prioritize transparency in information will be better able to build customer loyalty in a competitive digital market.

4.2.2.2 Control and choice

Consumers find the filter, rating, and product category features on e-commerce platforms very helpful. These features enable them to sort products according to their needs, compare prices between sellers, and evaluate the reputation of sellers based on ratings and reviews from other customers. Consumers feel they have more control in choosing products that are safe and meet their expectations. Here are some quotes from informants:

“Yes. Because there are filter features, I can see store ratings and reviews from other buyers.”

However, I still feel hesitant if the store doesn't have many buyers. So, I have to be smart in choosing and comparing stores.” (EA)

“I can compare prices, see store ratings, read reviews, and check the seller's reputation before buying.” (RA)

“I feel like I have enough control because I can compare products and see which sellers are more trustworthy.” (SN)

“Filters, I feel like I have enough control because I can compare many products, read reviews, and see seller ratings.” (UN)

This sub-theme emphasizes that consumer control features on digital platforms provide a sense of security, transparency, and improve the efficiency of the shopping process. The ability to sort products, compare prices, and verify seller reputation reduces the risk of disappointing purchases. This finding also underscores the importance of empowering consumers through digital features to make the shopping experience more focused, rational, and satisfying amid the abundance of online product options.

4.2.3 Transaction experience

4.2.3.1 security, returns, and warranties

Return policies and warranty features are considered very important by e-commerce consumers in Bone Regency, especially when they purchase electronic products, fragile items, or high-priced goods. The assurance of a warranty and ease of returns provide a sense of security in transactions and are one of the main factors in online shopping decisions. Some consumers emphasized this in interviews:

“Return policies and warranties are very important to me, especially for electronic products and items that are prone to damage. This provides a sense of security and trust when shopping online.” (SI)

“It's vital, especially when shopping for electronic goods or items that are quite expensive. The return policy makes me feel more at ease if the item that arrives is not as expected.” (NI)

“It's crucial. I feel more secure when buying items, especially electronic goods or clothes that may not fit.” (DA)

Field notes confirm:

“Complaint handling: the solutions provided satisfy customers.” A responsive complaint handling system supports consumer security in transactions and strengthens trust in the platform and sellers.

This sub-theme reveals that transaction security, warranties, and ease of returns are emerging as new standards that consumers expect in the digital era. Sellers and platforms that can provide a fast and solution-oriented complaint handling system will be more trusted and preferred by consumers. This encourages businesses to always be transparent, professional, and responsive to every customer issue in order to maintain loyalty and reputation.

4.2.3.2 Positive and negative experiences

Consumer transaction experiences in e-commerce are greatly influenced by delivery speed, product quality, the availability of bonuses or promotions, and the ease of communication with

the seller. The best experiences are felt when products arrive quickly, meet expectations, or come with unexpected bonuses. Conversely, the worst experiences arise when products do not match the description, the return process is complicated, or the seller is hard to contact when issues arise. The following quotes illustrate this:

“My best experience was when I bought local skincare products, got a promotional price, they were neatly packaged, and I received free samples. My worst experience was when I bought shoes, the size didn't fit, and the seller couldn't be contacted.” (EA)

“My best experience was when I bought a product that was heavily discounted, and the item was delivered quickly and as expected. My worst experience was when I bought clothes, but the items that arrived were the wrong size and of poor quality, and the seller was difficult to contact.” (RA)

“Best experience: I bought a local product, and the quality was very satisfying. Worst experience: I once received a damaged item, but fortunately, I was able to return it.” (SA)

Field notes add another dimension to this experience:

“The interaction was warm and friendly.”

“Consumers actively asked questions and interacted through comments and inquiries.”

Observations suggest a communicative and customer-oriented transaction atmosphere that fosters trust between sellers and buyers.

This sub-theme reveals that consumer satisfaction and loyalty in the digital world are highly dependent on the quality of end-to-end services, encompassing speed, product clarity, and after-sales service. Positive experiences strengthen the intention to repurchase, while negative experiences have the potential to reduce trust and even spread through reviews and recommendations. Therefore, sellers and platforms need to build a communicative, friendly, and solution-oriented transaction ecosystem to create a safe, comfortable, and satisfying online shopping experience for consumers.

4.2.4 Transaction trends and intentions

4.2.4.1 trust in e-commerce products

Consumer trust in local products sold on e-commerce platforms is built on the accumulation of positive reviews and high ratings given to sellers. Consumers associate the number of positive testimonials with a key indicator of a store's security and professionalism, so the tendency to make transactions will be greater if the seller has a strong digital reputation. However, consumers remain critical and selective, constantly checking product details and reading reviews before making a purchase, especially when dealing with new sellers. Several informants described:

“I trust them quite a lot, especially if the seller has many positive reviews and high ratings. But I still check the product details and reviews.” (UN)

“I trust local sellers, especially if they have many positive reviews and star seller status.” (AC)

“I trust local sellers, especially if they have positive ratings and reviews. Supporting local products is also a motivation, although I remain cautious when choosing new sellers.” (SI)

“I am quite confident, especially if the seller has a good rating and many positive reviews, but

I still have to be careful because not all local sellers have the same service standards.” (NI)

Field notes also reinforce this finding, for example, through the use of relevant and popular hashtags, as well as high levels of interaction between consumers and sellers in the comments section or chat feature. Local sellers who actively respond to consumer questions and maintain communication are considered capable of building trust, strengthening customer loyalty, and increasing the likelihood of repeat orders.

These findings confirm that in the digital age, consumer trust in local products is no longer built solely through physical proximity or social relationships, but through transparency, digital track records, and the quality of online interactions. Being responsive to consumers, maintaining a good reputation through reviews, and fostering open communication are key to building a positive image for local stores. SMEs that can effectively manage their digital reputation and engage in professional, active interactions will gain a competitive advantage in the e-commerce ecosystem. Thus, excellent service and a good digital reputation are important assets for SMEs to expand their market and maintain consumer trust amid increasingly fierce competition.

4.2.4.2 preference for local products

Consumers tend to prefer local products in e-commerce, especially when the quality and price of these products are competitive. Practical factors, such as fast delivery, lower shipping costs, and ease of returns in case of problems, are the primary considerations in purchasing decisions. In addition, the desire to support the local economy, appreciate the uniqueness of local products, and ease of access to services also strengthen preferences for local products. Several informants said:

“I prefer local products because they are delivered faster and I can support businesses in my area.” (DA)

“I prefer local products because they usually arrive faster, and shipping costs are cheaper.” (NI)

“I tend to choose local products because I want to support the local economy, and local products are usually easier to access if there are problems. In addition, local products often have unique characteristics and good quality.” (SI)

“If the quality of local products is good and the price is competitive, I will choose local products. But if they are cheaper or more complete than those from other cities, I don't mind buying from outside.” (CA)

Local products will become increasingly popular if supported by fast delivery services, active communication from sellers, and affordable shipping costs.

Consumer preferences for local products in e-commerce are not solely based on price but also on logistics, trust, and social responsibility toward supporting local businesses. Local products that can compete in terms of quality, delivery time, and service will more easily win over consumers. This finding presents a significant opportunity for local SMEs to strengthen their presence in the digital market by leveraging their logistical advantages, active communication, and local identity as product differentiators. Additionally, loyal consumers of local products can serve as natural promoters through reviews, recommendations, and their social networks, thereby helping to expand market reach and strengthen the community-based digital economy ecosystem.

4.2.4.3 Future transaction intentions

Most consumers stated that they would continue to shop online, and their transaction frequency would even increase as they gained more positive experiences. The main reasons were convenience, practicality, numerous promotions, and flexibility in terms of time and place. Online shopping has become the preferred option amid busy lifestyles and the need for an efficient shopping process. The following quotes illustrate this trend:

“My experience so far has been quite pleasant, so I shop online more often because it is practical” (ST)

“Yes, I have been quite satisfied so far, so I will likely continue to shop online frequently in the future, especially if the items are difficult to find in offline stores.” (NI)

“Yes, because it's more practical, there are many choices, and it can be done from anywhere. The positive experience makes me comfortable to continue shopping online.” (RA)

“Yes, I'm used to shopping online, especially when I'm busy with college and don't feel like going out. Just click, pay, and wait for delivery.” (EA)

This sub-theme highlights the shift in consumer behavior toward a digital-first approach, where positive experiences, ease of transaction, and customer-friendly services are the primary factors driving loyalty and the intensity of online shopping. This highlights the importance of enhancing services and innovation on e-commerce platforms to maintain consumer trust while driving the growth of the digital economy at the local level.

4.3, Discussions

Digital transformation in the trade sector has become a primary driver of economic restructuring and changes in consumption patterns in Indonesia, particularly following the COVID-19 pandemic's acceleration of technology adoption in various aspects of daily life ([Demestichas & Daskalakis, 2020](#); [Saba et al., 2024](#)). Bone Regency, which has traditionally been known for its agricultural and fishing industries, has also experienced a wave of digitalization in the SME and local trade sectors. This study comprehensively examines the readiness of sellers and consumer empowerment in facing the e-commerce era, using the Digital Transformation Readiness (DTR) perspective for sellers and the Consumer Empowerment Framework (CEF) for consumers, as an effort to fill the gap in the literature, which urban and large company contexts have dominated ([Labrecque et al., 2013](#); [Vial, 2019](#)).

Technological readiness is the primary foundation for the digital transformation of MSMEs in Bone Regency. Almost all sellers have access to adequate devices (such as smartphones, laptops, and home Wi-Fi) and can maintain the stability of their online business operations ([Carreras & Frago, 2022](#); [Hartatik et al., 2023](#)). The availability of devices and stable network access provides them with opportunities to manage inventory, run promotions, and respond to customers in real time. This signifies the occurrence of “technological democratization” at the local level, where physical access barriers—previously considered the primary source of the digital divide—are increasingly being eroded ([Indah et al., 2024](#); [Sutinen et al., 2022](#)). This study reinforces the findings of international studies, which emphasize that infrastructure availability is a key prerequisite for the digital transformation of SMEs in developing countries ([Vial, 2019](#)). However, this progress does not mean that technical challenges have disappeared. Obstacles such as application errors, unstable internet connections, and difficulties uploading products are still frequently encountered by sellers.

These findings are consistent with [Silva et al. \(2022\)](#), who found that despite the availability of infrastructure, digital friction—i.e., daily technical disruptions—remains a barrier to SME performance, particularly in rural and semi-urban areas. The ways sellers address these issues are also noteworthy: they utilize informal learning sources (such as YouTube and TikTok), seek solutions in online communities, or rely on family members. This learning-by-doing and learning-in-community model has been recognized in the literature as an essential pillar of digital resilience ([Nahiduzzaman et al., 2021](#); [Sunarti et al., 2023](#); [Vial, 2019](#)). In other words, digital readiness is not only individual but also collective and social network-based, a characteristic that is particularly prominent among MSMEs in Bone.

Sellers' active efforts to maintain digital performance—such as quick message responses, prompt customer service, and professional online store management—also reflect the internalization of digital service standards that platforms and large businesses have long dominated ([Kumar et al., 2022](#); [Santos et al., 2023](#)). Local sellers are now competing on the quality of their interactions, not just price or location. This situation reinforces the findings of [Dwiyanti et al. \(2024\)](#) and [Fitra R. \(2023\)](#) that SMEs in rural areas, if supported by infrastructure, can catch up with national digital service standards as long as digital literacy and innovation motivation are maintained.

The ability of local sellers to innovate in promotion and sales on digital platforms marks a significant advancement in digital readiness. They no longer rely solely on discounts and vouchers from major platforms, but also develop strategies such as live selling, flash sales, product bundling, and creative content, including unboxing videos and aesthetically pleasing product photos ([Sharma et al., 2023](#); [Song et al., 2022](#)). This shows that MSME sellers have entered the digital marketing 3.0 phase, where personalization, direct interaction, and storytelling are key assets in winning consumer trust ([Arjang et al., 2025](#); [Labrecque et al., 2013](#)).

This study also found that nearly all sellers utilize various social media platforms such as Instagram, WhatsApp, and TikTok as cross-platform promotional channels (omnichannel). This affirms the literature on the importance of omnichannel strategies and brand presence in maintaining engagement and expanding markets ([Chellappa & Pavlou, 2002](#); [Santos et al., 2023](#)). Previous research has indeed emphasized the advantages of large businesses in the omnichannel context. Still, the findings of this study demonstrate that local SMEs are also capable of adapting to this pattern, provided they are supported by digital literacy and high innovation motivation.

Sellers' digital literacy developed dynamically, driven by self-directed learning and active participation in online and offline communities. Most informants acquired knowledge through online tutorials, community forums, or SME training, which reinforces the findings of [Islam \(2024\)](#) That informal digital learning is the primary driver of digital knowledge accumulation in the Indonesian SME sector. Learning agility—the ability to learn quickly and adapt to changes in platforms, features, or trends—has become a competitive advantage for sellers in a highly dynamic digital ecosystem ([Gao et al., 2023](#); [Vial, 2019](#)).

External support through training, mentoring, and digital marketing programs greatly assists sellers in their digital adaptation process; however, not all SMEs have equal access to such support. Some sellers grow independently without ever receiving training, while others leverage these opportunities to accelerate their understanding and adoption of new features. This situation highlights the existence of a digital training gap, as identified in research by

[Wysokińska \(2021\)](#) and [Yufriadi et al. \(2024\)](#), which found that the distribution of training program benefits is often uneven in rural areas. This inequality in access to training needs to be addressed by policymakers and e-commerce platform managers to prevent SMEs that are “left behind” from falling further behind.

In addition to external support, social capital, in the form of family and administrative team support, is a key enabler. The division of tasks among family members or colleagues—from packaging to customer service—indicates that local SMEs possess substantial social capital and can adapt to new work patterns without compromising their collective character. ([Akpe et al., 2023](#); [Ubogu, 2025](#)). Internal and external collaboration, if optimized, will create a resilient SME ecosystem that can withstand market pressures, order surges, and changes in platform algorithms.

Local sellers consider e-commerce to be beneficial in expanding their market, reducing operational costs, and making their businesses more flexible. They view digitalization not as a threat, but as a strategic opportunity to grow and increase competitiveness. This positive perception is consistent with the Technology Acceptance Model ([Davis, 1989](#)) and the findings of [Venkatesh et al. \(2022\)](#), which identify perceived usefulness and perceived ease of use as the main factors influencing technology adoption.

However, this study also highlights critical challenges: sellers remain cautious about rising platform administrative costs, price competition with larger sellers, and the need to continuously adapt to new features and rapidly evolving algorithms ([Hendrawan et al., 2024](#); [Santos et al., 2023](#); [Sharma et al., 2023](#)). Adaptation is key to surviving in the volatile e-commerce ecosystem. Sellers who can respond quickly, maintain high service quality, and consistently innovate will find it easier to gain consumer loyalty. These findings align with the results of [Saba et al. \(2024\)](#), which emphasize that resilience, agility, and optimism are important predictors of SME success in the digital era.

From the consumer perspective, the digital transformation of e-commerce has altered the expectations and consumption patterns of the people of Bone. Platforms like Shopee, Tokopedia, and TikTok Shop have become favorites due to their empowering features (promotions, free shipping, flexible payment systems, filters, ratings, and reviews) that give consumers greater control over their shopping experience ([Joshi & Rahman, 2017](#); [Kim & Han, 2023](#); [Labrecque et al., 2013](#)). These features are not merely add-ons but primary empowerment tools that enable consumers to make rational, targeted, and efficient decisions. Reviews, ratings, and user-generated content have become vital trust assets in the e-commerce realm ([Jothimani et al., 2023](#)).

Consumers actively read, compare, and write reviews as a form of social control and contribution to the digital community. These findings reinforce the existing literature on crowdsourced trust ([Silva et al., 2022](#)), which suggests that seller and product reputation are built through the accumulation of previous buyers' experiences. Sellers who respond to reviews are perceived as more professional and trustworthy, while those who ignore reviews tend to lose customers.

Consumers also highly value transparency in product information. They require detailed product descriptions, attractive visuals, and clear information regarding prices and warranties. The presence of filter features, product categories, and price comparison systems gives them greater control over decision-making ([Jothimani et al., 2023](#); [Labrecque et al., 2013](#)).

Transaction security features, return policies, and product warranties are now new standards in the online shopping experience ([Hartatik et al., 2023](#)). Sellers and platforms that offer security guarantees and provide good after-sales service tend to be more trusted and recommended.

Positive consumer experiences are achieved when products arrive on time, meet expectations, include bonuses, or sellers provide friendly and communicative customer service. Conversely, negative experiences—such as products not matching expectations, difficult returns, or unresponsive sellers—can reduce loyalty and even spread through negative reviews. These findings align with the literature, which emphasizes the importance of an end-to-end experience where every stage—from search to transaction and after-sales—must be managed effectively to maintain consumer loyalty ([Ananda, 2022](#); [Saputra et al., 2024](#)).

Consumer trust in local products has also evolved. Previously, trust was built through social relationships or physical proximity, but it has now shifted toward digital reputation—the accumulation of reviews, ratings, and the seller’s digital status ([Chellappa & Pavlou, 2002](#)). Consumers also show a strong tendency to choose local products, not only because of logistics or price, but also out of social motivation to support local SMEs ([Sunarti et al., 2023](#)). However, they remain critical and selective; quality, price, service, and ease of return remain key considerations ([Silva et al., 2022](#)).

In addition, the intention to transact online in the future is very high, driven by convenience, flexibility, and positive experiences. The digital-first consumption pattern is strengthening, indicating a shift in consumer behavior at the local level, which was previously considered slow in technology adoption ([Demestichas & Daskalakis, 2020](#); [Gao et al., 2023](#)).

The findings of this study essentially reinforce the argument that digital transformation at the local level is influenced not only by technical factors (infrastructure and devices) but also by human, social, and cultural factors (learning agility, social capital, and digital communities). These findings differ from earlier studies that tended to view digital transformation as a purely technological process ([Davis, 1989](#); [Venkatesh et al., 2022](#)). The DTR and CEF models have proven to be more adaptive in understanding the complexity of the digitalization process in the SME and local consumer sectors ([Labrecque et al., 2013](#); [Vial, 2019](#)).

On the other hand, the challenges faced by SMEs and consumers in Bone also reveal a new digital gap, namely disparities in access to training, differences in learning agility, and the risk of digital exclusion among less adaptive groups. This phenomenon has been anticipated by studies by [Basu et al. \(2023\)](#) and [Saba et al. \(2024\)](#), which emphasize the need for inclusive strategies to prevent digitalization from exacerbating inequalities at the local level.

Theoretically, this study reinforces the relevance of Digital Transformation Readiness ([Vial, 2019](#)) and Consumer Empowerment Framework ([Labrecque et al., 2013](#)) for analyzing digital transformation in MSMEs and consumers in rural areas. The findings demonstrate that digital readiness is not only technical but also closely tied to digital literacy, innovation, learning agility, and external social support. For consumers, empowering digital experiences are formed from the collaboration of platform features, seller transparency, and a participatory culture in the review ecosystem.

Practically, this study encourages stakeholders to: (1) improve access and equity in digital training for local MSMEs; (2) expand network infrastructure and supporting devices; (3) build a community-based digital mentoring ecosystem; (4) optimize consumer empowerment features in e-commerce platforms; and (5) strengthen digital literacy and a culture of excellent

service at both the seller and consumer levels. E-commerce platforms are also expected to prioritize the sustainability of SMEs through cost-effective policies and algorithms that favor small businesses.

From a policy perspective, synergy between local governments, digital platforms, SME communities, and business mentors is crucial to ensuring digital economic inclusion, strengthening the competitiveness of local products, and distributing the benefits of digital transformation across all segments of society. Sustainable training programs, infrastructure development, and empowerment initiatives will accelerate digital economic growth in regions, opening opportunities for local SMEs to expand into national and even global markets.

5. Conclusion

This study demonstrates that digital transformation has brought about fundamental changes to the local trade landscape in Bone Regency, affecting both MSME sellers and e-commerce consumers. The readiness of sellers to adapt to the digital ecosystem is proven to depend not only on the availability of devices and network access, but also greatly influenced by digital literacy, innovation strategies, and social capital in the form of family and community support.

Adaptation and innovation strategies—such as cross-platform promotion, live selling, and the utilization of various digital features—enable sellers to survive and thrive amid the highly competitive e-commerce platform landscape. External training support and internal collaboration are key enablers of SMEs' digital readiness, although disparities in access to training remain a challenge. On the other hand, consumers show a strong preference for empowering features, such as promotions, ratings, reviews, transparent product information, and efficient return and warranty systems. Consumer trust and loyalty toward local products are increasingly built through sellers' digital track records and an active review culture. At the same time, positive experiences in online transactions reinforce the tendency to shop online in the future. These findings confirm that a successful digital transformation process is the result of a synergy between technological readiness, digital literacy, innovation, consumer empowerment, and support from an interconnected social ecosystem.

This study has several limitations that should be noted. First, the scope of the study is limited to one district (Bone) with specific local characteristics, so generalizing the results to other regions with different social, economic, and infrastructure dynamics should be done with caution. Second, the qualitative approach and purposive selection of informants may introduce potential biases into the narrative, and it was not possible to statistically measure the influence of quantitative factors (e.g., transaction frequency, income, consumer demographics). Third, this study did not specifically explore gender dimensions, generational differences (age cohorts), or the impact of platform policies and national regulations on the behavior of sellers and consumers. Additionally, the dynamic nature of technological trends and platform policies may render some findings less relevant in the future, unless regular research updates are conducted.

Future research is highly recommended to be conducted comparatively in several rural and urban areas to examine variations in the digital readiness of MSMEs and consumer behavior more broadly. A mixed-methods approach—combining qualitative data and quantitative surveys—will provide a more comprehensive picture of the influence of individual, social, technological, and policy factors on the acceleration of the digital economy at the local level. Longitudinal studies are also essential to monitor the dynamics of SME adaptation, changes in

consumer behavior, and the long-term impact of training interventions, platforms, or digital policies. In-depth research on the role of gender, the younger generation, and digital innovation in specific sectors (fashion, food, agriculture, etc.) is also needed to enrich digital inclusion strategies. Additionally, research examining cross-actor collaboration between local governments, e-commerce platforms, educational institutions, and digital communities can provide more effective and contextually relevant policy recommendations to accelerate digital transformation in Indonesia's regional economies.

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