



## Development of a Local Food Marketplace Platform: A Qualitative Study of E-Commerce Adoption among Small-Scale Producers in Shan State, Myanmar

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### Abstract

Despite the rapid growth of e-commerce in Southeast Asia, adoption among small-scale agricultural producers in Myanmar remains limited due to barriers such as low digital literacy, lack of trust in online transactions, pricing uncertainty, and logistics constraints. This study examines e-commerce adoption among small-scale food producers in Shan State, Myanmar, to inform the design of a localized digital food marketplace. Using a qualitative approach, semi-structured interviews were conducted with 20 agricultural value-chain actors, and the data were analyzed thematically. The findings identify five key barriers: pricing and delivery complexity, trust and payment risk, uneven digital literacy, logistics limitations, and reliance on community-based selling practices, leading many producers to abandon online channels. The study contributes theoretically by contextualizing and extending established adoption models, including TAM, UTAUT, and DOI, through the integration of rural, trust-based, and community-driven factors. Practically, it provides actionable insights for policymakers and platform developers, emphasizing simple interfaces, trust-building mechanisms, assisted use, and community-oriented onboarding. Overall, the study offers robust qualitative evidence to support user-centered platform design and inclusive rural e-commerce development in Myanmar.

**Keywords:** *E-Commerce Adoption, Qualitative Research, Digital Marketplace, Small-Scale Producers, Myanmar*

### 1. Introduction

In recent years, digital technology has fundamentally transformed how people communicate, buy, and sell products across the world. The rapid expansion of internet access and smartphone usage has enabled even small business owners to reach customers beyond their local communities. In Southeast Asia, e-commerce has become one of the fastest-growing business sectors, supported by improvements in internet infrastructure, mobile penetration, and online payment systems (Hoppe et al., 2023). However, benefits remain uneven. In many developing contexts—including Myanmar—digital platform adoption is limited due to weak infrastructure, low digital literacy, and lack of trust in online systems (Hendricks & Mwapwele, 2023).

Agriculture plays a central role in Myanmar's economy. Recent data show that the agriculture sector contributes approximately 24% of GDP and provides employment to nearly half of the population, especially in rural areas (Central Statistical Organization, 2022; ACIAR, 2021). The sector remains a primary source of income for households engaged in crop farming, livestock production, and small-scale food processing.

Shan State, located in eastern Myanmar, is one of the country's most productive agricultural regions, well known for tea, coffee, vegetables, rice, pickled tea leaves (laphet), and dried fruits. Despite producing high-quality goods, many small farmers and food producers struggle to access broader markets. They commonly rely on middlemen who purchase products at low prices and resell them at significantly higher margins. As a result, producers frequently earn only small profits from their agricultural and food products, which restricts their ability to invest in improved inputs, better storage and transportation, upgraded



packaging, and higher-quality production methods, while also limiting their opportunities to expand their businesses and compete effectively in larger markets—an ongoing challenge widely observed in rural agricultural markets across developing countries (Goyal, 2010). In addition, limited digital literacy and inadequate infrastructure make it difficult for producers to connect directly with consumers or online platforms. Addressing these gaps could help unlock new market channels and improve the overall economic resilience of producers.

Digital marketplaces present new opportunities for small-scale producers to sell directly to consumers without relying on intermediaries. These platforms can also promote local identity and traditional food culture, aligning with global consumer interest in authentic, locally sourced products. However, the transition from traditional market practices to online trading in Shan State has been slow. While younger individuals may use platforms such as Facebook, TikTok, or LINE, most rural producers find online selling complicated or unsafe due to weak internet connectivity, unreliable delivery services, fear of online scams, and limited payment options (Gefen et al., 2003) barriers commonly identified in e-commerce adoption research in developing countries (OECD, 2007).

Language and education also contribute to these limitations. Many rural residents belong to ethnic minority groups whose primary language is not Burmese. Since most online platforms are available only in Burmese or English, language mismatch becomes a significant barrier to participation (OECD, 2007). Additionally, digital skills training opportunities remain scarce. Although some producers informally use Facebook or messaging apps to sell products, these lack structured systems for product listings, secure payments, logistics tracking, and customer service.

A localized food marketplace platform tailored to the needs of Shan State could help address these challenges. Such a platform could enable producers to upload product information, communicate with buyers, access secure electronic payments, and coordinate local delivery services. It could also support digital literacy development and increase user confidence through ratings, reviews, and community-oriented features.

Evidence from previous studies shows that people adopt e-commerce systems only when they perceive them as useful, easy to use, and trustworthy—factors strongly highlighted in technology-adoption models (Hendricks & Mwapwele, 2023). Trust is particularly important in cultural contexts where traditional face-to-face relationships dominate economic transactions, such as in Shan State. Therefore, designing an e-commerce system that aligns with local cultural values, social norms, and community relationships is essential. Such a culturally grounded approach can also reduce users' perceived risk and encourage greater participation among small-scale producers and local consumers. Additionally, incorporating familiar communication styles, local language support, and community-based verification mechanisms may strengthen user confidence and improve long-term adoption.

This study aims to explore these factors through a qualitative investigation of small-scale food producers in Shan State. It seeks to understand their experiences, motivations, and barriers to entering online marketplaces. The research will propose a conceptual framework for a localized food-marketplace platform that reflects the region's economic, social, and cultural realities. In addition, the study will highlight how trust, community networks, and local practices shape producers' decisions to adopt digital commerce. Ultimately, the goal is to improve income generation, promote digital inclusion, and strengthen community resilience through appropriate technological solutions.

## 2. Research Objectives and Rationale

This study aims to develop a conceptual framework for a localized food marketplace platform that strengthens e-commerce adoption and enhances the economic opportunities of small-scale producers in Shan State. The rationale is grounded in the limited adoption of digital commerce in rural areas despite the rapid growth of e-commerce in the region, highlighting the need for context-specific and user-centered platform design.

To achieve this aim, the study investigates producers' awareness, readiness, and use of digital tools and e-commerce channels. It examines the technological, social, cultural, and economic factors that influence



their participation in online markets. The study explores how social media and existing digital practices shape product promotion, visibility, and customer engagement. Drawing on these insights, it proposes key platform features and design considerations tailored to local needs, and outlines strategies to support effective implementation, long-term adoption, and digital inclusion.

### 2.1 Analytical Propositions

Given the qualitative nature of this study, formal hypotheses are not employed. Instead, the research is guided by a set of analytical propositions that frame the investigation of e-commerce adoption among small-scale food producers in Shan State.

The first proposition suggests that participation in e-commerce can expand market access and improve producers' income by reducing reliance on intermediaries. The second proposition assumes that higher levels of digital literacy and prior experience with social media increase readiness to adopt online selling tools. The third proposition recognizes that barriers to e-commerce adoption are multidimensional and influenced not only by technological limitations but also by social and cultural factors, including trust, language, and traditional trading practices, as well as economic constraints such as cost and logistics.

### 2.2 Research Framework

Figure 1 provides an integrated overview of the study by combining the major variables of interest with the overall qualitative research approach. It summarizes the key factors influencing e-commerce adoption among small-scale food producers in Shan State, including usability, trust, infrastructure, and social influence. The framework also shows how these factors interact to shape producers' perceptions, decision-making, and online selling behavior.

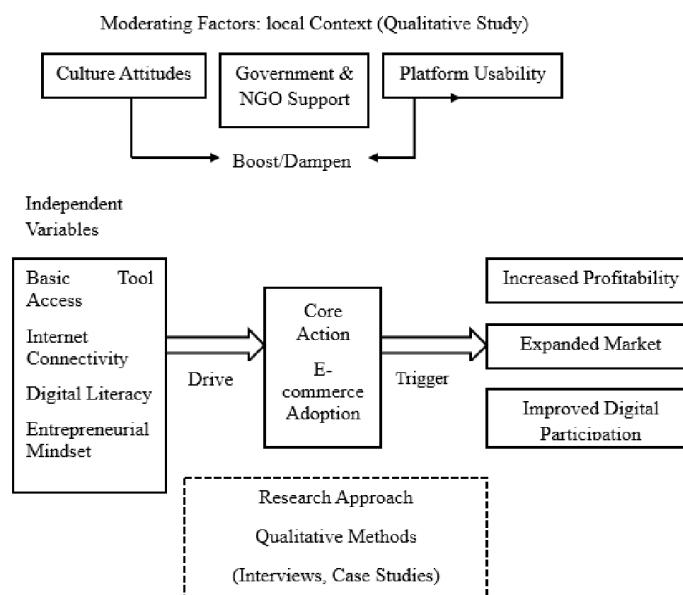


Figure 1 Overall Study Framework and Research Approach

### 2.3 Overview of E-Commerce

E-commerce encompasses the digital exchange of goods and services through electronic networks, primarily the internet. Over the past two decades, e-commerce has evolved from simple catalog-based transactions to complex platforms integrating payments, logistics, and merchant services. Business models vary across B2B (business-to-business), B2C (business-to-consumer), C2C (consumer-to-consumer), and hybrid forms that combine marketplaces with direct merchant stores. The growth of mobile connectivity and



digital payment systems has accelerated adoption globally, enabling small enterprises to reach markets previously inaccessible due to geography or distribution constraints (Laudon & Traver, 2022).

### *2.3.1 E-Commerce Adoption Among Small-Scale Producers*

Research on small-scale producers demonstrates a mix of opportunity and constraint. On one hand, digital platforms can reduce reliance on intermediaries and open access to urban and international buyers. On the other hand, producers often lack the digital skills, trust in online payment systems, and physical logistics connections needed to convert interest into sustained transactions. Studies in South and Southeast Asia report that factors such as cost, perceived benefit, and training intensity are decisive in shaping adoption (Qalati et al., 2020; Hinson et al., 2019).

### *2.3.2 Benefits and Economic Impact of E-Commerce Platforms*

When effectively implemented, e-commerce platforms generate broader market access, allow producers to capture higher margins, and create new opportunities for value-added services such as branding and traceability. Empirical evidence suggests that localized platforms, which combine training, logistics partnerships, and trust-building measures, tend to create more sustainable market linkages for small sellers (OECD, 2020).

### *2.3.3 Challenges Faced by Local Producers*

Local producers face multi-layered challenges: unreliable internet connectivity, limited access to smartphones or data plans, weak logistics networks that make shipping perishable goods difficult, inadequate packaging standards, and limited access to secure digital payment channels. Additionally, political instability or region-specific constraints can amplify these challenges—Myanmar's recent economic and political shocks have affected consumer demand, currency stability, and supply chain continuity (The World Bank, 2024).

### *2.3.4 Related Local Studies (Thailand / ASEAN Context)*

Thailand's national digital strategies have promoted SME e-commerce through training, subsidies, and public-private partnerships. Programs such as those supported by DEPA and Thailand 4.0 emphasize digital skills and logistics upgrades that reduce the rural-urban digital divide (DEPA, 2021). Local SMEs and farmers in ASEAN face constraints similar to those in Myanmar: limited ICT skills, difficulties accessing reliable payment and delivery services, and a need for localized content and language support. Thai consumers display rapidly increasing online purchase frequency, yet trust remains a central determinant of purchase decisions. Studies highlight that consumers prefer visible seller ratings, clear return policies, and reliable logistics (Chatchai Leenawong, 2024).

### *2.3.5 Case Examples: OTOP, Shopee Thailand, and Lazada Local Sellers*

Thailand's One Tambon One Product (OTOP) program shows how offline support combined with online marketing can connect rural producers with wider markets. Under OTOP, community-based sellers receive assistance in branding, packaging, and product certification, while platforms such as Shopee and Lazada provide accessible channels for nationwide sales. Shopee University and Lazada's LazMall Local Heroes further support small businesses through seller training and promotional campaigns that increase visibility and trust. These examples also demonstrate the importance of simplifying onboarding and reducing the digital burden for first-time sellers. They highlight how platform-based trust features, such as verified seller labels and customer protection policies, can encourage participation among small-scale producers.

Overall, these cases highlight that successful local digital marketplaces require not only technology, but also capacity-building, logistics support, and trust mechanisms, offering useful lessons for developing a localized platform for Shan State. This further highlights the importance of integrating both technological and institutional support to ensure sustainable adoption.



### 3. Research Methodology

#### 3.1 Research Design

This study adopted a qualitative and exploratory research design with descriptive elements to capture the complex social, economic, and cultural factors that shape e-commerce adoption among rural producers. A qualitative approach was appropriate because producers' experiences cannot be easily quantified. Their decisions were influenced by informal knowledge, interpersonal trust, cultural expectations, and everyday constraints that require interpretation rather than measurement (Creswell, 2014; Yin, 2018).

In addition, digital literacy and perceptions of technology varied widely among participants. Semi-structured inquiry allowed individuals to express their experiences in their own words, which helped reveal deeper insights. The study was also informed by perception-based constructs drawn from technology adoption frameworks such as TAM, UTAUT, and DOI, as well as trust-related perspectives (Venkatesh et al., 2003; Rogers, 2003). These constructs were better explored through open-ended discussion rather than numerical measurement.

Furthermore, the research aimed to propose a context-sensitive platform model. Exploratory qualitative data was therefore essential to ensure that the proposed system reflected local needs, cultural practices, and real-life conditions. This approach supported an in-depth understanding of producers' lived experiences in rural Shan State.

#### 3.2 Population and Sample

This study focused on small-scale food producers in Shan State. A purposive sampling strategy was employed to include participants with varying levels of digital knowledge and practical experience. This approach enabled the study to capture diverse perspectives on e-commerce adoption within small-scale food businesses. Participants were selected based on their involvement in producing and selling local food products through traditional markets, informal channels, or emerging online platforms. To enhance representativeness, the selection also considered diversity in gender, age groups, ethnic backgrounds, and types of production activities. Including individuals from different communities and business backgrounds allowed the findings to reflect the diversity of production and marketing practices in the region.

##### 3.2.1 Population

The target population consisted of small-scale food producers engaged in farming, food processing, traditional snack production, dried food production, and other micro-level enterprises in Shan State. These producers often operated under challenging conditions, including limited access to formal markets, reliance on intermediaries, and uneven levels of digital literacy. Many also faced constraints related to internet connectivity and logistics infrastructure. While some had limited experience with informal online selling through platforms such as Facebook or messaging applications, access to structured e-commerce systems remained restricted. In addition, limited access to digital payment systems and formal business registration further constrained participation in formal online marketplaces.

The study focused on selected townships—Taunggyi, Kalaw, Hsipaw, Nyaungshwe, and Lashio, which represented a mix of rural and semi-rural contexts. This selection allowed the research to capture variation in economic conditions and levels of digital access across Shan State.

##### 3.2.2 Sampling Technique

This study combined purposive and snowball sampling techniques to identify suitable participants. Purposive sampling was used to select individuals who were directly relevant to the research objectives. Participants were chosen based on their active involvement in small-scale food production, experience in selling products, basic familiarity with digital tools such as smartphones or social media, and willingness to participate in interviews. This ensured that participants could provide meaningful insights into both the opportunities and challenges of e-commerce adoption.



Snowball sampling was applied to reach additional participants through referrals (Palinkas et al., 2015). Given the importance of social networks in rural communities, this approach helped identify individuals who might not have been accessible through formal channels. It also supported trust-building and encouraged participation in socially and culturally sensitive environments.

### 3.2.3 Sample Size

The study included between 15 and 25 participants. The final sample size was determined by data saturation, which was reached when additional data no longer produced new themes or insights. This range is appropriate for qualitative field research and allows for diversity in participant characteristics such as age, gender, and type of production. A summary of participant profiles is provided in **Appendix A**.

### 3.3 Data Collection

Data were collected through semi-structured interviews conducted in local languages. The interviews focused on participants' selling practices, pricing decisions, delivery coordination, digital literacy, trust in online transactions, and expectations for a localized marketplace platform. Each interview lasted approximately 30 to 60 minutes. Field observations and notes were used to support and enrich the interview data.

### 3.4 Data Analysis

The interview data were analyzed using thematic analysis. Transcripts were coded using a combination of theory-driven and inductive approaches. Recurring patterns and themes were identified, compared, and refined throughout the analysis process. To enhance the trustworthiness of the findings, the study applied triangulation by comparing data across interviews, field observations, and different types of value-chain actors. In addition, member checking was conducted by sharing selected interpretations with participants to confirm the accuracy and credibility of the findings.

### 3.5 Ethical Considerations

All participants had provided informed consent prior to participation. Anonymity and confidentiality were maintained by using coded identifiers (e.g., P01, W01), and no personally identifiable information was recorded. Participants were informed of the purpose of the study and their right to withdraw at any time.

## 4. Results

### 4.1 Summary of Identified Themes

#### **Theme: Pricing and Delivery Complexity as a Barrier to Adoption**

Interview data indicate that producers frequently abandon online selling due to uncertainty around pricing and delivery calculations. Participants P01, P02, and P04 described disengaging from digital transactions when communication became time-consuming or unclear.

#### **Evidence:**

"I stopped replying and sold to the broker instead." (P01)

#### **Observed Behavior:**

Producers abandon digital channels and revert to intermediaries when pricing and delivery details are unclear.

#### **Interpretation:**

This behavior reflects a preference for familiar and predictable trading practices, where intermediaries provide immediate clarity and reduce uncertainty in transactions. It also indicates that producers prioritize efficiency and trust over potential long-term benefits of digital platforms, particularly when online interactions require additional time, negotiation, and cognitive effort.

#### **Design Requirements:**

- Fixed pricing templates
- Automatic delivery fee calculation



### **Theme: Logistics Constraints for Products as a Barrier to Adoption**

Interview data indicate that producers and distributors handling perishable goods face significant challenges when delivery timelines are unreliable. Participant P09 emphasized that delayed delivery directly affects payment outcomes and trust in digital transactions.

#### **Evidence:**

“Flowers must arrive on the same day. When delivery is late, buyers don’t pay.” (P09)

#### **Observed Behavior:**

Delayed delivery leads to buyers’ refusal to pay, discouraging producers from selling perishable goods through digital platforms.

#### **Interpretation:**

This behavior reflects the high sensitivity of perishable products to time and reliability, where even minor delays can result in financial loss. It also highlights the absence of risk-sharing mechanisms in digital transactions, leading producers to avoid online channels when outcomes are uncertain. Socially, this reinforces reliance on traditional trading relationships where delivery and payment are more immediate and predictable.

#### **Design Requirements:**

- Same-day delivery labeling
- Perishable product warnings

### **Theme: Digital Literacy Gaps and Shared Selling Practices as a Barrier to Adoption**

Interview data indicate that older producers often rely on younger community members to manage digital selling activities. Participant C02 highlighted limitations in current platforms that do not support shared account management, creating coordination challenges.

#### **Evidence:**

“Older farmers ask us to manage Facebook, but there’s no shared account.” (C02)

#### **Observed Behavior:**

Older producers depend on younger members, resulting in informal account sharing, inefficiency, and limited access.

#### **Interpretation:**

This behavior reflects generational differences in digital literacy and the collective nature of economic activities in rural communities. Rather than individual ownership of digital tools, platform use is often distributed across social networks, where younger members act as intermediaries. This challenges the assumption of single-user systems and highlights the need for collaborative platform design that aligns with existing community practices.

#### **Design Requirements:**

- Multi-user account access
- Role-based permission controls

### **Theoretical Link:**

To interpret these findings, this study applies several established technology adoption theories. The Technology Acceptance Model (TAM) explains user adoption based on perceived usefulness and perceived ease of use. The Unified Theory of Acceptance and Use of Technology (UTAUT) highlights the importance of facilitating conditions and social influence in shaping technology use. The Diffusion of Innovations (DOI) framework emphasizes compatibility with existing practices and the role of social systems in adoption. In addition, e-trust theory focuses on the role of trust, risk perception, and transaction security in online environments. These theoretical perspectives provide a comprehensive lens for understanding both individual and contextual factors influencing adoption.



The identified themes align closely with these theoretical constructs. Pricing and delivery complexity reflect challenges in perceived ease of use (TAM). Logistics constraints relate to facilitating conditions (UTAUT), particularly infrastructure and delivery reliability. The reliance on community-based selling practices reflects DOI concepts of compatibility and social systems. Trust-related concerns, especially regarding payment and delivery, are explained by e-trust theory. These findings demonstrate that multiple theoretical dimensions interact simultaneously rather than operating independently in shaping adoption behavior. They also reinforce the importance of integrating usability, infrastructure, and trust considerations in platform design. Together, these findings illustrate how structural constraints and social practices shape user perceptions, thereby influencing adoption decisions across multiple theoretical dimensions.

## 4.2 Analytical Tables

**Table 1** Feature–Evidence Mapping

Feature Requirement	Evidence (Participant)	Observed Problem	Related Theory
Auto delivery pricing	P01, P02	Online selling cancellation due to unclear delivery costs	TAM
Escrow payment	P05	Lack of trust between buyer and seller	E-Trust
Structured listings	W01	Transaction failure due to unclear product details	UTAUT
Time-slot pickup	D01	Logistics inefficiency in collection scheduling	UTAUT
Verified seller badge	P03	Buyer distrust toward unknown sellers	DOI
Order dashboard	P06	Payment and order tracking confusion	TAM
Voice input	P07	Literacy barriers to platform use	Accessibility
GPS pin	D02	Address ambiguity in last-mile delivery	Infrastructure
Group onboarding	C01, NGO01	Training challenges in individual-based systems	DOI
Local price benchmarking	P08 (Rice Farmer)	Price disadvantage for small producers	TAM (Perceived Usefulness)
Price guidance for small sellers	P08	Seller uncertainty in online selling	UTAUT (Facilitating Conditions)
Timing-sensitive listing support	P09 (Flower Grower)	High sensitivity of perishable goods to delays	DOI (Compatibility)
Standardized seller input	W04 (Market Trader)	Inconsistency in product information	UTAUT
Cargo detail preview	D03 (Truck Driver)	Lack of shipment visibility in transport	UTAUT
Multi-user account access	C02 (Youth Cooperative Member)	Role conflict in shared account usage	DOI (Social System)

## 5. Discussion

### 5.1 Interpretation of Findings

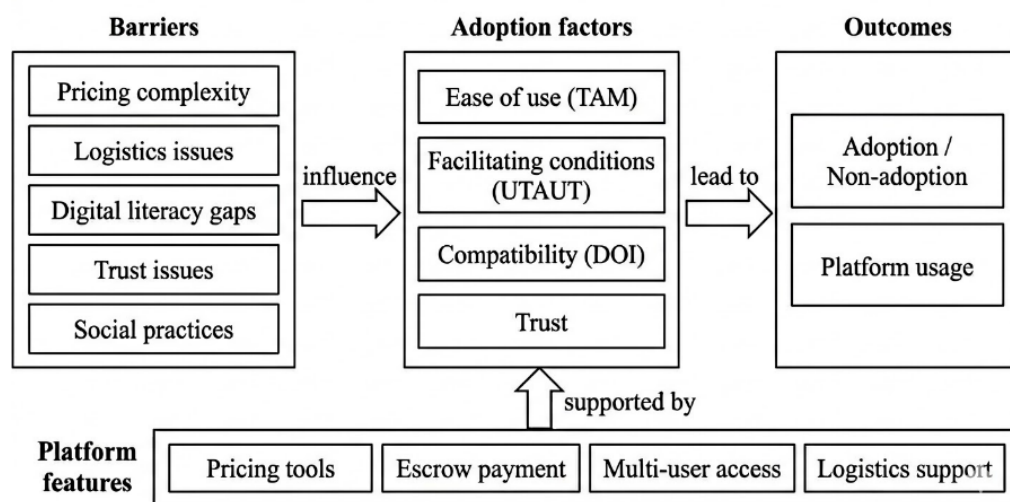
This study examines e-commerce adoption among small-scale food producers in Shan State using qualitative interview data. The findings are interpreted through established frameworks, including the Technology Acceptance Model (TAM), the Unified Theory of Acceptance and Use of Technology (UTAUT), the Diffusion of Innovations (DOI), and e-trust theory. TAM explains adoption through perceived usefulness and ease of use, UTAUT highlights facilitating conditions and social influence, DOI emphasizes compatibility and social processes, and e-trust theory focuses on risk and transaction security.

From a TAM perspective, adoption depends on whether digital selling improves income and reduces reliance on intermediaries. Unclear pricing and delivery processes reduce perceived usefulness and ease of use, leading to abandonment. In line with UTAUT, weak logistics and unreliable delivery limit adoption



despite user interest, while social influence from peers and community leaders encourages participation. Consistent with DOI, adoption occurs as a social process, where producers observe others before engaging, and high perceived risk slows diffusion. E-trust theory further explains that concerns about non-payment and transaction security discourage participation. Unlike many studies in ASEAN contexts that focus primarily on individual-level adoption factors, this study highlights the collective and community-mediated nature of digital adoption. It further contributes by demonstrating how shared usage practices and social support structures shape adoption behavior in rural settings such as Shan State.

Figure 2 presents the proposed localized e-commerce adoption framework derived from the empirical findings. The framework illustrates how structural barriers and community-based practices influence key adoption factors, which in turn shape platform usage outcomes and are supported by context-specific design features.



**Figure 2** Proposed Localized E-Commerce Adoption Framework

### 5.2 Evaluation of Analytical Propositions

The analytical propositions are largely supported by the empirical findings. The first proposition, which suggests that e-commerce participation can expand market access and improve income, is partially supported. Although some producers recognized these benefits, many were unable to sustain online selling due to pricing uncertainty and delivery complexity, indicating that economic gains depend on platform usability and reliability.

The second proposition, linking digital literacy and prior social media experience to adoption readiness, is supported. Producers with greater digital familiarity demonstrated higher confidence in using online tools, while reliance on younger community members indicates that adoption is often collective rather than individual.

The third proposition, which emphasizes the multidimensional nature of adoption barriers, is strongly supported. The findings show that barriers extend beyond technological constraints and are shaped by social, cultural, and economic factors, including trust, language, traditional practices, and logistics.

### 5.3 Policy and Practical Implications

The findings highlight the need for improved rural logistics and digital payment systems to support adoption. Policymakers should promote targeted digital literacy programs, especially for older producers, and support community-based training through cooperatives and local networks. For practitioners, platform design should prioritize simplicity, trust mechanisms such as secure payment systems, and features that reflect actual user behavior, including multi-user access and clear delivery coordination (Norman, 2013).



#### **5.4 Research Limitations**

This study has several limitations. The sample size is relatively small and limited to selected areas in Shan State, which may affect generalizability. Language differences during interviews may have influenced interpretation. In addition, the political and economic situation in Myanmar may affect infrastructure and long-term adoption. Despite these limitations, the study provides valuable qualitative insights into rural e-commerce adoption.

#### **6. Conclusion**

This study investigated the adoption of e-commerce among small-scale food producers and agricultural value-chain actors in Shan State, Myanmar, through an in-depth qualitative approach. The findings demonstrate that limited adoption is not driven by rejection of digital technology itself, but by a mismatch between existing platform models and the realities of rural producers. Barriers such as pricing and delivery complexity, payment insecurity, unreliable logistics for perishable goods, uneven digital literacy, and language constraints cause challenges in daily production and selling practices. These challenges lead many producers to abandon online selling despite recognizing its potential benefits, reinforcing continued dependence on intermediaries and informal market structures.

By applying the Technology Acceptance Model, UTAUT, Diffusion of Innovations theory, and e-trust theory, this study highlights that e-commerce adoption in Shan State is a collective and socially mediated process rather than an individual technological decision. Trust in the platform, visible peer success, assisted use, and reliable facilitating conditions emerged as more influential than perceptions of innovation. The findings show that shared selling practices—where younger or more digitally skilled community members support older producers—are not exceptions but a core feature of rural commerce in Shan State. This challenges individual-user assumptions in mainstream e-commerce design and highlights the need for platforms that enable multi-user access, role-based permissions, and community-oriented onboarding.

The study contributes practical design implications for a localized digital food marketplace tailored to the socio-economic and cultural context of Shan State. Features such as standardized pricing templates, automated delivery calculations, shared account functionality, language accessibility, and logistics visibility are not optional enhancements but necessary requirements for sustained adoption. Beyond platform design, the findings suggest that policymakers, development agencies, and platform developers should prioritize trust-building mechanisms, cooperative-based implementation strategies, and ongoing digital support rather than one-time training.

Future research could examine consumer trust and demand behavior in rural e-commerce, test the proposed design requirements through platform prototypes, or conduct longitudinal studies to observe adoption over time. Comparative studies across regions may also provide broader insights into rural digital marketplace adoption.

#### **7. Acknowledgements**

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## APPENDIX A

Table 1 Participant Profile Summary

Code	Role	Product / Function	Location	Gender	Ethnicity	Age Group	Value Chain Actor
P01	Tea Farmer	Green tea leaves	Hsipaw	M	Pa-O	40-50	Producer
P02	Vegetable Farmer	Cabbage, tomato	Kalaw	F	Pa-O	40-50	Producer
P03	Coffee Grower	Arabica coffee	Taunggyi	M	Bamar	30-40	Producer
P04	Snack Maker	Fried snacks	Nyaungshwe	F	Pa-O	30-40	Producer
P05	Dried Fruit Processor	Mango, banana	Lashio	F	Shan	30-40	Producer
P06	Young Coffee Producer	Online social selling	Taunggyi	M	Shan	20-30	Producer
P07	Elder Tea Producer	Phone-assisted selling	Remote Hsipaw	M	Pa-O	50-60	Producer
P08	Rice Farmer	Small-batch rice	Lashio	M	Bamar	40-50	Producer
P09	Flower Grower	Cut flowers	Kalaw	F	Pa-O	30-40	Producer
W01	Tea Wholesaler	Bulk purchasing	Kalaw	M	Shan	40-50	Wholesaler
W02	Food Collector	Multi-producer sourcing	Hsipaw	M	Shan	30-40	Aggregator
W03	Urban Tea Buyer	City-level sourcing	Mandalay	M	Bamar	30-40	Wholesaler
W04	Market Trader	Mixed agri-products	Taunggyi	F	Bamar	40-50	Wholesaler
D01	Transport Operator	Local delivery	Lashio	M	Shan	30-40	Distributor
D02	Motorcycle Courier	Last-mile delivery	Lashio	M	Shan	30-40	Distributor
D03	Truck Driver	Inter-town delivery	Mandalay–Shan Route	M	Bamar	40-50	Distributor
L01	Village Head	Market coordination	Taunggyi	M	Shan	50-60	Opinion Leader
C01	Cooperative Leader	Group selling	Kalaw	F	Pa-O	40-50	Institutional Actor
C02	Youth Cooperative Member	Digital sales support	Hsipaw	M	Shan	20-30	Institutional Actor
NGO01	NGO Trainer	Digital skills training	Shan State	F	Shan	30-40	Support Actor