

Digital Inclusion for Economic Empowerment: Transforming Livelihoods in Vulnerable Communities

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Abstract

Expanding digital access is crucial for improving the livelihoods of vulnerable communities. Digital tools such as the internet, social networking sites (SNSs), mobile financial services (MFSs), and product tracking systems provide individuals with skills, resources, and opportunities to reduce unemployment, generate income, and break the cycle of poverty. While there are numerous ways to leverage digital access for uplifting livelihood, this study focuses on e-commerce as a means to market community-based local products. This study investigates the challenges, opportunities, and potential solutions for e-commerce adoption, primarily through SNSs, among trained and supported vulnerable entrepreneurs. Quantitative data were gathered from these entrepreneurs, while qualitative insights were obtained from vulnerable entrepreneurs, university faculty and NGO executives. The study identified key opportunities, including the promotion of unique and authentic products, cost-effective global reach, endorsements from niche communities, access to learning resources, and the ability to build brand identity through storytelling. However, several challenges hinder e-commerce adoption, such as a lack of self-motivation and confidence, limited digital literacy and internet access, limited funding opportunities, weak marketing strategies, and trust issues among consumers. To overcome these barriers, the study suggests microcredit and digital grants, affordable training, community digital centers, influencer collaborations, and cost-effective shipping partnerships. Policy recommendations aimed at boosting e-commerce adoption through SNSs, creating new economic opportunities and driving socio-economic development were also suggested.

Keywords: *Vulnerable community, vulnerable entrepreneur, community-based product, digital entrepreneur, digital marketing.*

JEL Classification: I38, O15, L26, L31, L81, M31.

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1. Introduction

The rapid development of information technology has significantly impacted the global landscape, particularly in e-commerce, contributing to economic growth. Advancements in Information and Communication Technology (ICT) have altered e-commerce, allowing entrepreneurs to sell local products globally with minimal resources. Businesses can now operate without physical outlets, leveraging social commerce (s-commerce) through platforms like Facebook, YouTube and Instagram. The upsurge of mobile technology further enhances convenience, allowing consumers to shop anytime, anywhere (Kashyap & Gupta, 2024). Social networking sites (SNSs) provide vibrant opportunities for small and vulnerable entrepreneurs, helping them sustain businesses even during crises like the COVID-19 pandemic.

Bangladesh, the world's eighth most populous country, had 169.5 million people as of April 2023, with 42% living in urban areas (“Bangladesh Demographics 2024”, n.d.). Notably, 42.86% of the population is between 15 and 39 years old (“Demographics of Bangladesh,” 2024). This demographic presents both an opportunity and a challenge—if effectively exploited, it can drive national development; otherwise, unemployment may lead to crime and instability. With inadequate job opportunities and regional inequalities in development, engaging this enormous workforce in productive activities remains a critical issue.

Since independence, Bangladesh’s northern region has faced budget allocation disparities, with Rangpur being the least industrialized division. Within it, Kurigram is the most vulnerable district, struggling with extreme weather and economic stagnation. Several rivers, including the Brahmaputra, Dharla, and Teesta, contribute to recurrent floods and droughts, worsening unemployment. Kurigram’s economy relies deeply on agriculture, leading to seasonal job shortages, especially during the Monga periods of food insufficiency. Industrial development is marginal, and many areas remain isolated, particularly the Char regions, where poverty levels are significantly higher than in mainland areas. This discrepancy highlights the unmet development needs of these communities (Sigamany&Drydyk, 2021).

Kurigram's isolation, weak communication networks, and frequent natural disasters make its people extremely vulnerable. Floods and droughts disrupt livelihoods, excavating economic disparities. Sustainable development in Bangladesh needs addressing these challenges, as no nation can progress while parting its people in poverty (Haque et al., 2024). A comprehensive approach is required to uplift Kurigram’s communities, focusing on entrepreneurship, seasonal migration, and micro-credit initiatives. Entrepreneurship plays a vital

role in emerging economies by driving growth, reducing poverty, and improving living standards (Rakib, 2023).

Kurigram's vulnerable communities have the potential to become successful entrepreneurs, with self-employment playing a key role in poverty reduction. Vulnerable entrepreneurship involves business activities by disadvantaged groups to improve their socio-economic status, including social entrepreneurship, which adds them into the labor market (Pavel, 2011). Young people in Kurigram's Char lands can leverage low labor costs to produce community-based products and sell them nationwide and globally through social media platforms like Facebook, Instagram, and YouTube. By supporting their products with social causes, they can enrich market competitiveness while fostering community support.

Using SNSs to sell community-based products can help exterminate poverty by improving access to markets and increasing income opportunities. The COVID-19 pandemic has made online shopping more common, further pushing community entrepreneurs to embrace digital platforms. Studies have shown that e-commerce training and consultations have been effective in increasing product awareness and sales (Chienwattanasook, Jarinto& Sulong, 2023; Sulong, Jarinto&Chienwattanasook, 2023). However, challenges like digital literacy and market saturation must be addressed to exploit the potential of vulnerable entrepreneurs (Gan et al., 2022). Providing e-commerce training, content creation assistance, digital security education, and financial support from government and NGOs can help uplift vulnerable communities and contribute to balanced economic development in Bangladesh.

2. Objectives of the Study

The study aims to identify the challenges and opportunities for vulnerable entrepreneurs in selected areas using SNS-based e-commerce, focusing on community-based local products. To achieve the broad objective, the study focuses on the following specific goals:

- a) Understand the demographic profile of prospective entrepreneurs in the vulnerable areas.
- b) Identify community-based products, such as handicrafts, agricultural products, and cultural items, suitable for online sales.
- c) Assess the levels of digital access, internet connectivity, and digital literacy among vulnerable community members to gauge their willingness for e-commerce.

d) Identify the challenges and opportunities of adopting SNS-based e-commerce for potential vulnerable entrepreneurs.

e) Provide recommendations for becoming successful entrepreneurs through SNS-based e-commerce.

3. Literature Review

3.1 Socio-Economic Challenges and Vulnerability in Kurigram:

Kurigram, Bangladesh, is home to several vulnerable communities that face major socio-economic and environmental challenges, particularly due to frequent natural disasters such as floods. Research indicates that nearly one-third of Bangladesh's rural population lives below the upper poverty line, with Kurigram playing an extensive role in this statistic (Malek et al., 2013). The Flood Vulnerability Index (FVI) highlights areas like Ashtamir Char and Nayerhat as particularly inclined to severe flooding due to low resilience and insufficient coping mechanisms (Islam & Hasan, 2023). Flooding in this region disrupts livelihoods, intensifies poverty, and limits economic opportunities (Roy & Sarker, 2016). Extreme poverty in Kurigram disproportionately affects agricultural wage laborers, landless farmers, and marginalized groups, further intensified by resource paucity and poor infrastructure (Barman & Islam, 2020). Although agriculture works as the primary occupation for 55% of the population, a substantial portion of these individuals do not own farmland. Limited market access and inadequate resources contribute to persistent unemployment and food insecurity (Barman & Islam, 2020). Seasonal variations in rainfall further impact food security, often forcing migration as a coping strategy, especially during Monga, a period of acute seasonal hunger (Etzold et al., 2014). The lack of agro-based industrialization intensifies these challenges by limiting job creation and income generation (Sarker, 2020).

3.2 Economic Inclusion to Tackle Unemployment and Crime:

High youth unemployment is closely related to increased crime rates, as economic adversity lowers the opportunity cost of illegal activities (Lee & Holoviak, 2006). Individuals from lower socioeconomic backgrounds are predominantly vulnerable due to poverty and limited job prospects (Shah, Soomro & Mirjat, 2019). In Kurigram, where agriculture governs, seasonal unemployment worsens this issue (Islam et al., 2011). A lack of varied employment options keeps unemployment high, especially among educated youth (Haque et al., 2024). The social embeddedness theory suggests that persistent criminal involvement further disconnects individuals from legitimate

jobs, creating a cycle of crime and joblessness (Hagan, 1993). Social entrepreneurship offers a promising solution, helping marginalized groups enter the workforce (Kravchenkova, Kalashnikova & Soldatenko, 2023; Pavel, 2011). Targeted employment programs can break this cycle, reducing crime and fostering economic constancy (Lojanica& Obradović, 2020).

3.3 The Need for Support Systems in Sustainable Livelihood:

Developing sustainable livelihood strategies is indispensable for communities facing climate-induced vulnerabilities (Chambers & Conway, 1992). Kurigram's economy, heavily dependent on agriculture, requires differentiated income sources to mitigate disaster-related disruptions (Barman & Islam, 2020). Households employ various coping mechanisms, such as engaging in multiple income-generating activities, seasonal migration, and seeking alternative livelihoods (Etzold et al., 2014). However, the overall support for sustainable economic development remains inadequate, with limited access to financial resources, technical training, and market linkages (Haque et al., 2024; Sarker, 2020). Strengthening community resilience requires targeted interventions, including microfinance initiatives, vocational training and government-backed social protection programs (Roy & Sarker, 2016). Additionally, the integration of digital platforms and e-commerce can augment market accessibility, empowering vulnerable entrepreneurs to overcome economic constraints (Kabir et al., 2020; Kashyap & Gupta, 2024).

3.4 E-Commerce as a Driver of Economic Development of the Vulnerable:

E-commerce, the online exchange of goods and services, has changed retail by offering convenience, diverse product choices, and competitive pricing. It works through various models, including business-to-business (B2B), business-to-consumer (B2C), and consumer-to-consumer (C2C) transactions (Williams, 2024).By enabling digital transactions, e-commerce expands market access for SMEs and drives economic growth. Studies show a solid link between e-commerce adoption and economic performance, with SMEs using digital platforms to reach wider markets (Kabir et al., 2020). ICT reduces business costs, expands trade efficiency, and boosts exports (Islam, Islam & Sawda, 2022).The COVID-19 pandemic augmented e-commerce growth, with 94.7% of service providers reporting positive business impacts due to digital commerce during lockdowns (Hossain, 2022). Mobile technology has further improved accessibility, allowing consumers to shop anytime, anywhere (Kashyap & Gupta, 2024).

3.5 E-Commerce and Poverty Alleviation of Vulnerable Communities:

E-commerce has confirmed effective in poverty reduction, particularly in rural areas. For example, in China, digital commerce has allowed local farmers to sell their products online, improving their economic conditions (Liao & Chen, 2022). Similarly, community-based local products, such as Derwati salted eggs, demonstrate how effective branding and packaging strategies can enhance market reach and competitiveness for vulnerable entrepreneurs (Anggalih, 2022). Social networking sites (SNSs) play a crucial role in social commerce (s-commerce), enabling entrepreneurs to market their products with minimal investment (Madias & Szymkowiak, 2022). In developing countries, female entrepreneurs use SNSs to overcome patriarchal barriers, leveraging platforms like Facebook to promote their businesses and empower marginalized communities (Camacho & Barrios, 2022).

Kurigram's socio-economic vulnerabilities, particularly high unemployment and susceptibility to climate-related disasters, highlight the urgent need for sustainable economic interventions. E-commerce offers a encouraging avenue for economic growth, job creation, and poverty reduction. By leveraging digital platforms, marginalized entrepreneurs can access wider markets, enhance their business opportunities, and improve their livelihoods.

4. Methodology

4.1 Research Design:

This study applies a mixed-methods approach, integrating both qualitative and quantitative data to offer a comprehensive analysis. While data is collected and analyzed separately, findings are combined at the interpretation stage to ensure a well-rounded understanding of the research topic. The qualitative part involves in-depth interviews and focus group discussions to explore the perspectives, attitudes, and experiences of vulnerable entrepreneurs. Meanwhile, the quantitative method uses descriptive statistics, including frequency distributions to analyze demographic profiles, current status, trends, and patterns among vulnerable entrepreneurs.

4.2 Study Setting:

Several organizations, including ASA, SDF, and AID-Comilla, work in Kurigram to support vulnerable communities. This study purposively focuses on AID-Comilla, which operates in Chilmari and Nageshwari Upazilas, providing digital access training to uplift livelihoods. Study participants therefore include individuals trained by AID-Comilla. Kurigram has a population of 2,329,160,

with Nageshwari (444,696 residents) and Chilmari (131,711 residents) being key focus areas. The district's literacy rate for those aged 15 and above is 59.61% (male: 63.38%, female: 56.10%). Internet penetration is 15.62%, with Nageshwari at 13.42% and Chilmari at 16.73%. Mobile phone ownership (ages 15+) stands at 51.68%, and electricity access is nearly universal (98.79%–99.08%). The NEET (Not in Education, Employment, or Training) rate is 37.96%, with Nageshwari at 43.37% and Chilmari at 35.11%. Chilmari spans 224.96 sq km (25°26'–25°40' N, 89°38'–89°48' E), bordered by Ulipur, Char Rajibpur, and Sundarganj Upazilas. Nageshwari covers 417.56 sq km (25°59'–26°13' N, 89°35'–89°52' E), bordering Bhurungamari, Kurigram Sadar, and parts of India (Chilmari Upazila – Banglapedia, n.d.; Kurigram District – Banglapedia, n.d.; Nageshwari Upazila – Banglapedia, n.d.).

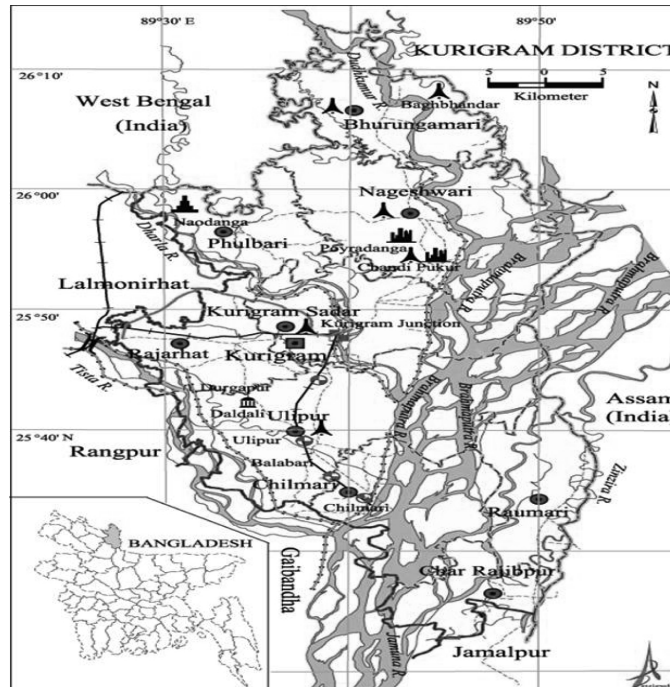


Figure 1: Administrative Map of Kurigram District

Walters, 2016) to identify key insights. Open codes were first generated based on literature, while second-cycle codes emerged from field data, refining thematic interpretations. The below table provides a summary of the data collection process:

5. Findings and Discussion

5.1 Demographic Profile of the Survey Respondents

Table 2: Respondents Demographic Profile

Demographics		Frequency (n)	Percentage (%)
Gender	Male	37	26.43
	Female	103	73.57
Age	Less than 18 years	8	5.71
	18-30 years	69	49.29
	31-40 years	53	37.86
	41-50 years	10	7.14
Education	Below SSC	105	75.0
	SSC	15	10.72
	HSC	11	7.85
	Graduation	6	4.29
	Post-graduation	3	2.14
Monthly Income	Less than 10000 Tk.	106	75.71
	10001-20000 Tk.	27	19.29
	20001-30000 Tk.	7	5.0
Religion	Islam	118	84.29
	Hindu	22	15.71
Marital Status	Married	95	67.86
	Unmarried	34	24.29
	Divorced	7	5.0
	Widow	4	2.85

Source: Field Survey (2024)

The majority of respondents are female (73.57%), with males comprising 26.43%. The age distribution shows that 49.29% are between 18–30 years, while 37.86% fall within the 31–40 age group. Educational attainment is low, with 75% not completing secondary school, 10.72% passing the SSC level, and only 2.14% holding postgraduate degrees. Most entrepreneurs are in the early stages of business, with 75.71% earning less than 10,000 Tk. per month, while 19.29% earn between 10,001–20,000 Tk. Religiously, 84.29% are Muslim and 15.71% are Hindu. Marital status data reveals that 67.86% are married, 24.29% are

unmarried, 5% are divorced, and 2.85% are widowed. The high percentage of married women highlights the prevalence of early marriage among female entrepreneurs in Kurigram.

5.2 Product Produced by Vulnerable Entrepreneurs:

The researchers found following community-based local products to which vulnerable entrepreneurs have expertise to produce.

Table 3: Community-based Products of Chilmari and Nageshwari

Pattern	Product name
Handicraft	Plastic alna, Puthikalamdani, Hand Fan, Hand paint couple dress, Puthi lampshade, Puthi flower tree, Puthi artificial bonsai, Nakshi katha, Tissue couple dress. etc.
Crochet	Crochet table cover, Crochet baby hat, Crochet mat etc.
Agricultural	Vermicompost
Others	Pickles, Honey, Honey Nuts etc.

Source: Field Survey (2024)

5.3 Present Scenario of Vulnerable Digital Entrepreneurs

Table 4: Current Status of Vulnerable Digital Entrepreneurs

Demographics		Frequency (n)	Percentage (%)
Use of digital media for product promotion	Yes	123	87.86
	No	17	12.14
Types of digital media used for product promotion	Social Media	123	87.86
	No Media	17	12.14
Types of social media used	Facebook	119	85.0
	Youtube	4	2.86
	No Media	17	12.14
Primary devices for accessing social media	Smartphone	115	82.14
	Laptop	8	5.72
	No Device	17	12.14
Product promotion using social media	Content creation	110	78.58
	Boosting of content	3	2.14
	Paid advertising	10	7.14
	No promotion	17	12.14

Product delivery mode	Customer Pick-up	11	7.86
	Self-Delivery	20	14.29
	Own Delivery Man	8	5.71
	Regional/National Courier Services	94	67.14
	International Courier Services	7	5.0

Source: Field Survey (2024)

Puthi flower tree



Vermi compost



Digital marketing is crucial for vulnerable entrepreneurs due to its affordability and accessibility. Among respondents, 87.86% use digital media for marketing, with all relying on social media. However, most use it passively rather than for active customer engagement. Facebook dominates (85%), followed by YouTube (2.86%). While social media offers cost-effective brand-building, inconsistent usage reduces its impact. Most entrepreneurs (82.14%) access social media via smartphones, with only 5.72% using laptops. Content creation (78.58%)—including product photography, demos, and customer reviews—is the primary marketing strategy. However, paid advertising is underutilized, with only 7.14% using it and just 2.14% boosting posts to expand reach. Improved content strategies could increase engagement and customer retention. For product delivery, 67.14% rely on regional/national courier services due to cost and reliability. Others use self-delivery (14.29%), personal delivery staff (5.71%), or in-person pick-up (7.86%). Notably, 5% use international couriers for orders from Saudi Arabia, the UK, and Italy.

5.4 Findings from In-depth Interviews:

The below table presents brief insights on the profile of the in-depth interview participants’:

Table 5: Profile of the In-Depth Interview Participants

Participant's age range	Gender	Interview code	Quantity
18-30 years	Male	Interview no. 2	01
	Female	Interview no. 3, 4	02
31 to 40 years	Male	Interview no. 1	01
	Female	Interview no. 7, 9, 10	03
41 to 50 years	Male	Interview no. 6	01
	Female	Interview no. 5, 8	02
Total			10

Source: Field Survey (2024)

This study utilized thematic analysis and open coding (Saldaña, 2016; Walters, 2016) to identify key insights from interview data. Ten entrepreneurs were interviewed: three aged 18-30, four aged 31-40, and three aged 41-50. Among them, seven were female and three male. The interviews revealed challenges, opportunities, potential solutions, and support needs for improving their livelihoods through digital business management.

Social media marketing is a powerful yet underutilized tool for vulnerable entrepreneurs in Bangladesh. Regardless of its affordability and effectiveness, many struggle to leverage e-commerce and digital marketing. Interviews with entrepreneurs from Chilmari and Nageshwari Upazila revealed critical perceptions on digital entrepreneurship, the necessity of going digital, benefits, challenges, and the role of institutional support.

5.4.1 The Need for Digital Transformation in Business:

For vulnerable entrepreneurs in Bangladesh, going digital is vital for building scalable, sustainable businesses that can overcome traditional barriers. Key benefits include:

1. **Wider Market Reach** – Digital marketing helps entrepreneurs expand beyond local limitations, reaching national and even global customers. As one entrepreneur (Interview 3) shared, *“I can now easily promote my products to customers in Dhaka, which wouldn't have been possible without digital marketing.”*
2. **Targeted Customer Engagement** – Online platforms enable entrepreneurs with limited resources to connect with niche audiences interested in their products. A Nakshikatha seller (Interview 6) noted, *“Digital marketing helps me find loyal customers who appreciate my craft.”*

3. **Stronger Brand Identity** – Social media platforms like Facebook, Instagram, and YouTube enhance brand visibility. One entrepreneur (Interview 8) explained, *“Regular posts, live selling, and engaging content have increased my brand recognition and customer loyalty.”*
4. **Enhanced Credibility** – A strong digital presence builds trust, particularly for entrepreneurs in remote areas. Entrepreneurs (Interviews 2, 3, 7) mentioned, *“I share customer reviews with permission, which boosts credibility and encourages more buyers.”*
5. **Social Inclusion** – Digital platforms empower marginalized entrepreneurs, including women, minorities, and rural business owners, by providing visibility and economic opportunities. A Shidal seller (Interview 4) stated, *“Through digital marketing, I can reach buyers across the country and grow my business.”*

Embracing digital solutions provides entrepreneurs with the tools, audience, and adaptability needed to overcome challenges and build resilient, growth-oriented businesses. By leveraging digital platforms, they can access broader markets, engage directly with consumers, and secure long-term sustainability.

5.4.2 Benefits of Social Media Marketing:

Social media marketing is a powerful, cost-effective tool for digital entrepreneurs in Bangladesh, allowing them to build brands, engage customers, and grow their businesses. Key benefits include:

1. **Wider Customer Reach** – With millions of Bangladeshis active on Facebook and YouTube, entrepreneurs can connect with customers nationwide without needing a physical store. As several participants (Interviews 1, 2, 5, 10) noted, *“Facebook allows me to communicate with buyers across the country and produce goods based on demand, reducing the need for large inventories.”*
2. **Stronger Customer Relationships** – Direct interaction through comments, messages, and live sessions helps build trust and customer loyalty. One entrepreneur (Interview 9) shared, *“I can quickly respond to customer inquiries and resolve complaints, which encourages repeat purchases.”*

3. **Enhanced Branding** – Social media provides a platform for showcasing products creatively, boosting brand recognition. A Nakshikatha seller (Interview 8) explained, *“Posting images and videos of my designs on Facebook and YouTube attracts appreciation and builds a positive image of my work.”*
4. **Targeted Marketing** – Platforms like Facebook allow precise audience targeting based on location, interests, and demographics, making marketing more effective for entrepreneurs with limited budgets. One participant (Interview 9) mentioned, *“Joining Facebook gardening groups helps me promote my organic vermicompost directly to interested customers.”*
5. **Live Selling Opportunities** – Facebook Live is a growing trend in Bangladesh, allowing real-time product demonstrations and fostering direct customer engagement. An entrepreneur (Interview 7) shared, *“Streaming my honey extraction process on Facebook attracts international buyers from Saudi Arabia and England.”*

Overall, social media marketing is crucial for digital entrepreneurs in Bangladesh, offering an affordable and effective way to expand their reach, build customer loyalty, and grow their businesses locally and internationally.

5.4.3 Challenges Faced by Vulnerable Digital Entrepreneurs:

Social media-based e-commerce offers new opportunities for entrepreneurs from disadvantaged backgrounds, allowing them to sell local products like handicrafts and organic goods. However, despite the progress of digital technology, these entrepreneurs face numerous challenges:

1. **Lack of Self Confidence and Motivation** – Many entrepreneurs struggle to believe that e-commerce can be a primary source of income, leading to hesitation in fully committing to their businesses (Interviews 1, 3, 4, 7, 9).
2. **Limited Digital Literacy and Access** – Many vulnerable entrepreneurs lack education and familiarity with digital tools, making it difficult to create quality content, boost posts, and manage transactions. Additionally, they often cannot afford high-performance devices or reliable internet, further hindering their operations (Interviews 1, 4, 5, 6).

3. **Cultural and Language Barriers** – Selling nationally and internationally requires clear communication with diverse customers. Explaining the significance of culturally unique products and ensuring content is understandable to all is a major challenge (Interviews 1, 7).
4. **Financial Constraints and Low Production Capacity** – Limited capital prevents entrepreneurs from buying raw materials in bulk, investing in packaging, or expanding production. Banks and microfinance institutions are often reluctant to provide loans, restricting their ability to scale (Interviews 1, 6, 7, 9, 10).
5. **Stiff Competition** – Many established businesses already dominate the e-commerce market, making it difficult for new entrepreneurs to stand out and compete, especially against well-known brands.
6. **Logistics and Delivery Issues** – Reliable courier services and proper packaging facilities are often unavailable in remote areas, causing difficulties in managing orders, particularly for fragile or perishable products (Interviews 1, 4-6, 8-10).
7. **Trust and Credibility Concerns** – Customers often prefer to buy from established sellers. Many new entrepreneurs struggle to build trust, especially without secure payment options or return policies, limiting their ability to attract buyers (Interviews 2, 3, 5, 8, 9).

Despite these challenges, addressing these barriers through digital literacy training, financial support, and better logistics can help vulnerable entrepreneurs flourish in the digital marketplace.

5.4.4 Institutional Support for Vulnerable Entrepreneurs:

Institutional support is vital for empowering marginalized entrepreneurs in Bangladesh, particularly in underdeveloped regions. Government agencies, NGOs, microfinance institutions, and educational organizations can help them overcome barriers, access resources, and build sustainable businesses. Key areas of support include:

1. **Comprehensive Digital and Business Training** – Development organizations and NGOs offer training in e-commerce, social media marketing, and financial management. However, many entrepreneurs feel that training programs should be more comprehensive (Interviews 4, 8). One of the respondent (Interview no. 8) argued that, *“I’m grateful to AID-Comilla for providing me with the training on digital marketing.”*

The social media marketing training provided by them has helped me to grow my business offline as well as online.” Another respondent (Interview no. 4) expanded this view by saying that, “After receiving the training from AID-Comilla, I have ventured into online business. But the training is not sufficient. It would have been better for them to take more time and teach me the basics of digital marketing.”

2. **Flexible Microfinance Initiatives** – Institutions like Grameen Bank, BRAC, and RDRS provide microloans, but entrepreneurs struggle with high-interest rates and inadequate funding (Interviews 1-3, 6-7, 10). One respondent (Interview no. 9) opined that, *“The government does not give us loans. We get loans from NGOs. But it is not enough and the amount of loan installments is also high.”* Flexible loan terms could help them scale their businesses without excessive debt.
3. **Establishing Community-Based Digital Hubs** – Establishing digital centers with stable electricity, internet access, and business tools can help entrepreneurs operate efficiently, especially in disaster-prone areas. One of the respondents quoted that, *“During storms and floods, our area does not have electricity. As a result, we are unable to charge our smartphone even if we want to and our online business operations are stopped. We need uninterrupted electricity and internet supply”* (Interview 4).
4. **Arranging Local and Regional Trade Fairs** – Government-backed trade fairs can expand market reach and connect entrepreneurs with buyers and suppliers. Another respondent (Interview no. 5) states that, *“Participating in a trade fare can help gain the visibility of our local products and encourage demand outside of local areas.”*
5. **Commencing E-commerce Partnerships** – Collaboration with platforms like Daraz and AjkerDeal could provide vulnerable entrepreneurs with greater visibility and market access through reduced onboarding fees and training. One of our vulnerable entrepreneurs (Interview no. 4) mention that, *“We cannot advertise our products on major e-commerce sites at will. If we had a corporate deal with Daraz or Ajker Deals, we could buy products from those sites as well.”*
6. **Support for Traditional and Eco-Friendly Products** – Financial aid, marketing support, and sales platforms can help artisans sustain their craft and attract conscious consumers. One respondent (Interview no. 2), producing traditional crafts with clothes, states that, *“My products are fully handmade. Materials costs are also high. But I’m unable to get order and sell my products on regular basis.”*

Institutional backing in finance, training, digital access, and market expansion can significantly enhance the success of vulnerable entrepreneurs. Strengthening these initiatives will foster inclusive economic growth and empower marginalized communities.

5.5 Findings from Focus Group Discussions:

Focus group discussions (FGDs) identified four key themes: challenges, opportunities, solutions, and the need for institutional support and community-building for digital entrepreneurs.

5.5.1 Challenges Faced by Vulnerable Digital Entrepreneurs:

Despite the potential of online platforms, vulnerable digital entrepreneurs face several impediments that hinder their growth:

1. **Limited Access to Funding** – Traditional lenders hesitate to finance small or unregistered businesses, making it difficult for entrepreneurs in remote areas like Chilmari and Nageshwari to secure even microloans.
2. **Lack of Digital Skills** – Many entrepreneurs struggle with essential e-commerce, marketing, and customer engagement tools. A lack of willingness to learn further limits their business potential.
3. **Poor Internet and Device Quality** – Unstable internet, low bandwidth, and costly connectivity make it difficult for rural entrepreneurs to manage online businesses effectively. Low-quality devices further add to the challenge.
4. **High and Inaccessible Shipping Costs** – Courier services are unavailable in many remote areas, requiring entrepreneurs to travel to Upazila centers for shipments. High shipping costs deter customers, especially when competitors offer cheaper or free delivery.
5. **Ineffective Marketing** – Entrepreneurs often lack marketing skills, making it difficult to reach their target audience, showcase products, and drive sales. Poor communication of their value proposition leads to lost customers.

Addressing these challenges through financial aid, digital training, improved logistics, and marketing support is crucial for empowering vulnerable digital entrepreneurs.

5.5.2 Opportunities for Vulnerable Digital Entrepreneurs:

In spite of challenges, digital platforms offer promising opportunities for marginalized entrepreneurs, particularly those producing unique, eco-friendly products. Key prospects include:

1. **Showcasing Unique, Authentic Products** – Social media enables entrepreneurs to highlight the cultural significance of handmade and traditional products, creating emotional connections with customers who value artisanal and sustainable goods.
2. **Expanding Global Reach at Low Cost** – Platforms like Facebook and YouTube allow entrepreneurs to market beyond local boundaries. Cost-effective tools such as reels, live streaming, and video sharing help them attract both national and international buyers.
3. **Support from Local and Niche Communities** – Customers who appreciate handcrafted, culturally significant products often act as brand ambassadors, boosting visibility and encouraging loyalty among like-minded consumers.
4. **Access to Free Learning Resources** – Online platforms offer tutorials and guides on digital marketing, sales techniques, and customer engagement, helping entrepreneurs develop essential business skills.
5. **Building Brand Identity Through Storytelling** – Social media allows entrepreneurs to share behind-the-scenes content and product narratives, strengthening brand identity and appealing to ethically conscious buyers.

While entrepreneurs in regions like Chilmari and Nageshwari face resource limitations, digital platforms provide valuable opportunities for growth and sustainability.

5.5.3 Possible solutions to the problems of vulnerable digital entrepreneurs:

To support community-based vulnerable digital entrepreneurs, targeted policies, funding, training, and community engagement are essential. Government, NGOs, and development organizations can implement the following solutions:

1. **Microcredit & Digital Grants** – Launching low-interest microcredit programs with minimal collateral and digital grants for setting up online stores, purchasing digital tools, and funding online marketing efforts.

2. **Affordable Digital Training** – Providing free or low-cost training on social media marketing, e-commerce management, and digital promotion through government, NGOs, and academic institutions.
3. **Forming Community Digital Centers** – Establishing local hubs with high-speed internet, devices, and digital tools to support entrepreneurs in remote areas.
4. **Influencer & User-Generated Content Marketing** – Encouraging satisfied customers to share their experiences and collaborating with influencers to promote small businesses at a low cost.
5. **Cost-Effective Shipping Solutions** – Partnering with national couriers for discounted shipping rates and setting up shared fulfillment hubs to reduce delivery costs and time.

By implementing these strategies, vulnerable digital entrepreneurs can overcome barriers, achieve sustainable business growth, and contribute to local economic development.

5.5.4 Institutional support and nationwide community building of digital entrepreneurs:

Strong institutional backing and nationwide community initiatives can significantly boost the resilience and sustainability of vulnerable digital entrepreneurs in Bangladesh. Key strategies include:

1. **Financial Support & Digital Subsidies** – Providing funding for digital tools, website development, internet access, and marketing assistance through local digital hubs.
2. **Nationwide Digital Literacy Campaigns** – Conducting regular workshops and online training on e-commerce, digital marketing, and financial management.
3. **Mentorship & Peer Networks** – Connecting entrepreneurs with industry experts and fostering knowledge-sharing through digital forums.
4. **Rural E-Commerce Hubs** – Establishing centers to provide packaging, inventory management, and logistics support for market expansion.
5. **Partnerships with E-Commerce Platforms** – Collaborating with platforms like Daraz and AjkerDeal to offer reduced rates, training, and business support.

6. **Access to Mobile Financial Services** – Partnering with bKash, Rocket, and Nagad to lower transaction fees and provide financial literacy training.
7. **National Branding for Local Products** – Launching “Made in Bangladesh” campaigns to promote handmade, eco-friendly, and community-based goods.
8. **Digital Entrepreneur Forums** – Creating online platforms for entrepreneurs to share experiences, resources, and collaboration opportunities.
9. **Annual Conferences & Networking Events** – Organizing industry gatherings with universities, financial institutions, and tech companies to foster connections.
10. **Eco-Friendly Business Certification** – Introducing certification programs for green and socially responsible businesses to attract ethical consumers.

A combination of financial aid, training, digital resources, and policy support from government, NGOs, and private institutions can create a strong ecosystem for vulnerable digital entrepreneurs to thrive.

6. Recommendations and Policy Implications

6.1 Recommendations for Vulnerable Entrepreneurs:

1. **Stay Self-Motivated** – Entrepreneurs should view e-commerce as a primary income source and believe in their ability to succeed.
2. **Choose the Right Product** – Focus on products they can produce efficiently, with low-cost raw materials, easy nationwide delivery, and emotional appeal.
3. **Develop Digital & Business Skills** – Learn essential digital skills, such as managing social media pages, creating content, SEO, cybersecurity, and using mobile financial services like bKash and Nagad. Basic business knowledge, including marketing and transactions, is also crucial.
4. **Understand Diverse Cultures & Languages** – To expand their market, entrepreneurs should ensure content is clear and customer-friendly for both local and international buyers.

5. **Build Community & Collaborate** – Rather than competing, entrepreneurs should form networks to share resources, negotiate better deals, and support each other. They can also create niche customer groups based on cultural and emotional connections, gaining loyal supporters.

6.2 Policy Implications for Policymakers:

1. **Simplify Policies & Legal Frameworks** – Reduce regulatory and tax burdens, streamline e-commerce registration, and enforce consumer protection laws to ensure safe online transactions.
2. **Enhance Digital Literacy Programs** – Provide mobile-friendly training on e-commerce, cybersecurity, and digital marketing, focusing on marginalized groups, including women and low-income individuals.
3. **Improve Financial & Banking Access** – Offer startup funding and expand mobile financial services in distant areas to facilitate e-commerce transactions.
4. **Provide Business & Skill Development Training** – Arrange for training on budgeting, inventory management, customer service, social media marketing, and data-driven decision-making.
5. **Ensure Affordable Technology & E-Commerce Infrastructure** – Work with telecom companies to offer budget-friendly internet plans and devices. Establish rural e-commerce centers for shared internet, logistics, and training.
6. **Promote Inclusive Entrepreneurial Platforms** – Support online and offline networks where entrepreneurs can share experiences, success stories, and resources, promoting collaboration and growth.

By implementing these recommendations, both entrepreneurs and policymakers can strengthen Bangladesh's digital economy and generate sustainable opportunities for vulnerable communities.

7. Conclusion and Direction for Future Research

Poverty remains a serious issue in northern Bangladesh, where many people lack fundamental necessities like food, clean water, and healthcare. With agriculture as the primary livelihood, floods and droughts often lead to unemployment. Limited education and digital literacy further hinder economic opportunities, making data collection on e-commerce challenging.

While the government and NGOs provide financial support during crises, sustainable solutions for poverty mitigation remain scarce. This study highlights the prospects of digital entrepreneurship as a long-term solution. By leveraging social networking sites (SNSs), community-based products like handicrafts, agricultural goods, and cultural items can reach broader markets, providing vulnerable communities with a sustainable income source.

The findings can help policymakers and NGOs in planning effective poverty alleviation programs, improving digital access, and supporting local entrepreneurs. Moreover, strengthening the e-commerce value chain benefits other stakeholders, contributing to the country's inclusive socioeconomic development. Future longitudinal studies, conducted after six months or a year, can assess the impact of these initiatives and identify the most operational strategies for fostering vulnerable entrepreneurship.

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