The Influence of Mobile Financial Service–Driven Consumer Engagement on the Growth of Small Apparel Entrepreneurship in Bangladesh

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ABSTRACT

This study helps to examine how mobile payment systems influence adoption patterns, consumer behavior, and customer satisfaction. Furthermore, it explores how these changes contribute to the digital transformation and growth of small-scale apparel businesses by fostering entrepreneurship in Bangladesh. The findings aim to provide valuable insights for business owners, platform developers, and policymakers to optimize mobile financial platforms in support of micro-entrepreneurship. Ultimately, this research contributes to a broader understanding of how digital financial systems are enhancing consumer engagement with small-scale entrepreneurs in the apparel sector of Bangladesh.

Keywords: Apparel, financial service, digital economy, entrepreneurs, transactions.

INTRODUCTION

In recent years, mobile banking has emerged as a transformative force in the financial landscape of Bangladesh, reshaping the way individuals and businesses conduct transactions. As one of the country's most dynamic economic sectors, the clothing industry ranging from local boutiques to expanding online retailers has increasingly adopted mobile financial services (MFS) such as bKash, Nagad, Rocket, and Upay to meet the demands of a growing digital consumer base [2].

The widespread penetration of smartphones and mobile internet has made MFS platforms more accessible, particularly in urban and semi-urban regions. These services offer convenient, secure, and real-time payment solutions, gradually replacing traditional cash-based transactions and transforming customer expectations within the apparel sector [3]. Notably, small and home-based apparel entrepreneurs---many of whom operate via social media---are leveraging MFS to streamline transactions, foster customer trust, and expand their market reach [1].

This study investigates how mobile financial services influence consumer engagement, operational efficiency, and growth trajectories for small apparel entrepreneurs in Bangladesh. By surveying both consumers and business owners following analysis were taken into consideration:

1. **Adoption Patterns**: Which MFS platforms dominate the apparel sector, and why?

2. **Behavioral Shifts**: How do digital payments affect purchasing frequency, trust, and loyalty?

3. **Entrepreneurial Impact**: To what extent does MFS integration enhance business scalability and sustainability?

The aim of this study is to examine the extent of consumer engagement with small apparel businesses through mobile financial services in Bangladesh, compare the usage of various mobile financial services (MFS) like

bKash, Nagad, Rocket, and Upay across different types of clothing businesses and identify key MFS features (e.g., convenience, trust, cashback offers) that influence consumers to purchase from small apparel entrepreneurs. Finally, to assess the impact of MFS-driven consumer behavior on the growth and sustainability of small apparel entrepreneurship.

LITERATURE REVIEW

The digital financial revolution has transformed economic landscapes globally, with mobile financial services (MFS) emerging as a powerful tool for financial inclusion. Originally pioneered in Africa through platforms like M-Pesa [18], this innovation quickly spread to South Asia, where Bangladesh has emerged as a notable success story. With over 180 million mobile subscribers and a robust MFS infrastructure, the country has become a model for digital financial inclusion in developing economies [19].

Bangladesh's apparel sector presents a particularly compelling case for studying MFS adoption. While contributing 84% of the nation's export earnings, the industry demonstrates a dual structure: large-scale garment manufacturing for export coexists with a vibrant ecosystem of small domestic enterprises. These micro-entrepreneurs - including home-based tailors, social media boutiques, and niche designers - face unique challenges that MFS helps address, such as limited access to formal credit and cash flow volatility [16]. The COVID-19 pandemic served as a significant catalyst for adoption, as lockdown measures compelled small businesses to embrace contactless transactions, revealing MFS's potential to enhance business resilience [1].

Despite growing adoption, significant gaps remain in understanding how MFS impacts small apparel businesses' operational strategies. Existing research has predominantly focused on either macroeconomic effects [10] or isolated consumer behavior [4], neglecting the platform's transformative potential for micro-enterprise management. This study bridges that gap by integrating insights from financial technology, entrepreneurship theory, and apparel industry studies [6,11,17].

MFS has revolutionized financial access in developing nations, particularly in Bangladesh [20]. Studies demonstrate that platforms like bKash, Nagad, and Rocket have dramatically improved digital payment accessibility for SMEs [21]. Research by Islam and Rahman [9] reveals how MFS adoption facilitates seamless transactions, reducing reliance on cash-based systems - a crucial advantage for apparel entrepreneurs operating with limited capital.

Recent data indicates remarkable growth in MFS penetration, with Bangladesh experiencing a 78% increase since 2020 [12]. This expansion has particularly benefited textile sector micro-entrepreneurs. Notably, Siddiqui and Akter [15] highlight MFS's role in reducing financial exclusion barriers for women-led apparel startups, a critical factor in Bangladesh's informal economy.

The fashion retail sector has undergone significant transformation through digital financial services. Ahmed and Hasan [4] demonstrate that MFS-driven transactions enhance both customer trust and convenience, leading to increased repeat purchases. Empirical evidence from textile industry studies shows that small apparel businesses utilizing MFS experience 22% faster payment cycles, significantly improving cash flow management [6].

Mobile wallets have enabled innovative marketing approaches for small fashion brands. Hoque et al. [7] document how these platforms facilitate personalized discounts and loyalty programs, boosting customer retention rates. Parvin et al. [13] further quantify these benefits, showing that digital payment integration reduces e-commerce cart abandonment by 22% for apparel retailers.

While Bangladesh's apparel industry ranks as the world's second-largest exporter, small-scale entrepreneurs continue facing banking access challenges [16]. MFS adoption has helped mitigate these obstacles by reducing transaction costs and expanding market reach [11]. Research in fashion technology journals indicates that digital payments enable small apparel firms to minimize inventory risks through real-time sales data analysis [17].

Field studies reveal that 75% of Dhaka-based small tailors now use MFS for supplier payments, significantly

reducing processing delays [5]. Perhaps most strikingly, Rahman and Begum [14] found that combining social commerce with MFS increases revenue by 40% for home-based apparel startups, demonstrating the transformative potential of digital financial tools.

METHODOLOGY

This study adopts a quantitative research approach with a cross-sectional survey design to investigate how Mobile Financial Services (MFS) like bKash, Nagad, Rocket, and Upay drive consumer engagement and growth for small apparel entrepreneurs in Bangladesh.

Primary Data: To conduct survey a structured questionnaire (see Appendix A) with four sections was designed that includes:

1. Demographics (age, gender).
2. MFS Adoption & Usage (platforms, frequency, reasons).
3. Shopping Behavior & Satisfaction (preferences, issues faced).
4. Impact on Small Apparel Businesses (purchase frequency, MFS influence).

Sampling: Customers aged 18 and more who shop for clothing in Bangladesh (via malls, local markets, online stores, etc.) were the target population. Convenience sampling and snowball sampling methods were adopted to reach diverse demographics. Responses of ~~150~~ 250 respondents were taken to ensure statistical reliability.

Data Analysis Techniques: Frequencies, percentages, and mean scores are calculated to summarize adoption rates, preferred MFS platforms, and satisfaction levels, buying from small apparel business. Again, cross-tabulation was used to compare usage patterns across demographics (e.g., age groups, shopping locations).

Ethical Considerations: During data collection respondent anonymity and confidentiality were ensured. Additionally, data stored securely and used solely for academic purposes.

DISCUSSION AND RESULTS

Demographic Profile of Respondents

Age group

Table 4.1: Respondents Age Group

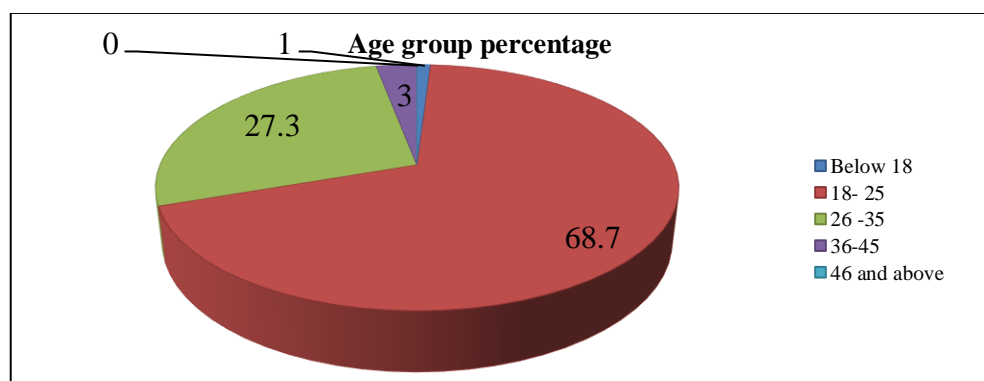| Age	No of Respondents	Respondents %
Below 18	2	1
18-25	136	68.7
26-35	54	27.3
36-45	6	3
46 and above	0	0

Fig 4.1: Respondents Age Group

Interpretation: From the graph it stands that younger consumers (18–25) dominate mobile banking usage, indicating higher digital literacy and adoption among millennials and Gen Z. Zero respondents from 46 and above age confirms the "digital divide" where older generations prefer traditional payment methods.

The overwhelming dominance of young consumers (68.7% aged 18-25) using mobile financial services presents a golden opportunity for aspiring apparel entrepreneurs in Bangladesh.

Gender Distribution:

Table 4.2: Gender distribution of respondents

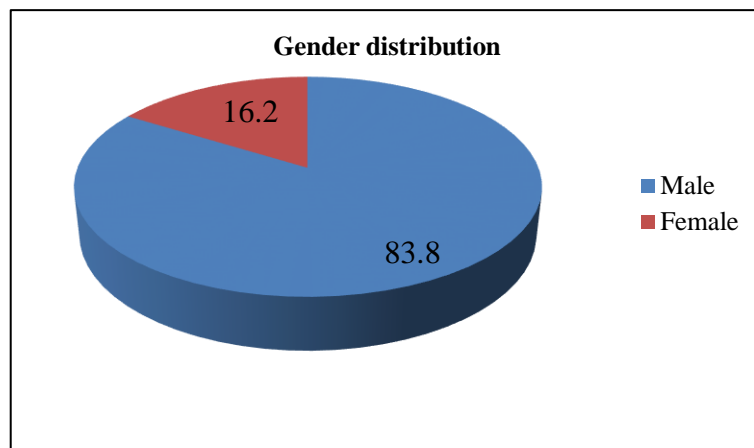| Gender	No. of Respondents	Respondents %
Male	165	83.8
Female	32	16.2

Fig 4.2: Gender distribution of respondents

Interpretation: The graph represents Males are more active in mobile banking transactions for clothing purchases, possibly due to greater financial independence or shopping habits.

This gender-disaggregated data serves as a strategic compass for apparel entrepreneurs, informing product development (male-focused casualwear vs female-oriented modest fashion), enabling targeted promotions (gender-specific MFS cashback offers), and revealing partnership opportunities with payment platforms to develop customized financial products.

Mobile Banking Adoption and Usage Patterns Adoption Rate

Table 4.3: Adoption Rate

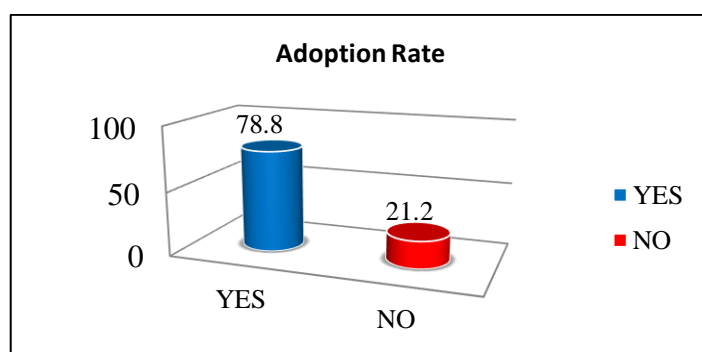| Opinion	No. of Respondents	Respondents %
Yes	156	78.8
No	42	21.2

Fig 4.3: Adoption Rate

Interpretation: Most of respondents use mobile banking for clothing purchases. A few people still prefer cash due to trust issues, lack of access, technological knowledge.

The high adoption rate validates MFS as a preferred payment method, enabling entrepreneurs to minimize cash handling costs and accelerate cash flow cycles - crucial for inventory management in small apparel businesses.

Most Used Mobile Banking Services

Table 4.4: Most Used Mobile Banking Services

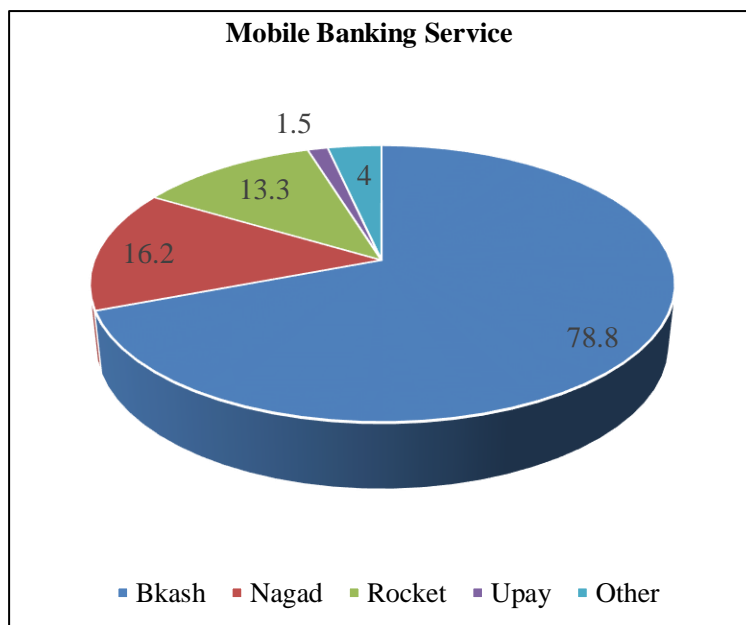| Mobile Banking Service	No. of Respondents	Respondents %
Bkash	155	78.7
Nagad	32	16.2
Rocket	26	13.3
Upay	3	1.5
Other	8	4

Fig 4.4: Most Used Mobile Banking Services

Interpretation: BKash leads due to brand trust, widespread agent networks, and promotional offers. Rocket and others have targeted consumer. Nagad has been trying to catch Baksh for a while.

The fragmented mobile banking landscape presents a golden opportunity for apparel entrepreneurs to optimize sales and operations through smart payment strategies. By offering multi-platform payment options, businesses can capture the entire MFS market - from bKash's dominant 78.7% user base to Nagad's growing 16.2% adoption.

Frequency of Usage

Table 4.5: Frequency of Usage

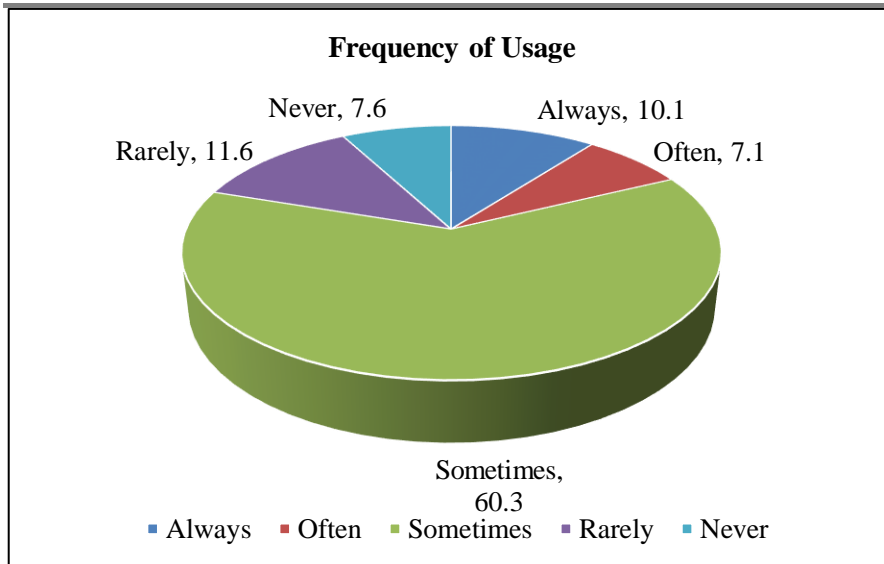| Frequency of Usage	No. of Respondents	Respondents %
Always	20	10.1
Often	14	7.1
Sometimes	126	60.3
Rarely	23	11.6
Never	15	7.6

Fig 4.5: Frequency of Usage

Interpretation: Mobile banking is frequently used but not yet fully replacing cash for all transactions.

By implementing MFS-exclusive benefits for frequent buyers and hybrid payment options for hesitant customers, small businesses can gradually shift more transactions to digital platforms. The data particularly highlights the potential to convert the large "sometimes" user segment into regular patrons through strategic engagement.

Reasons for Using Mobile Banking

Table 4.6: Reasons for Using Mobile Banking

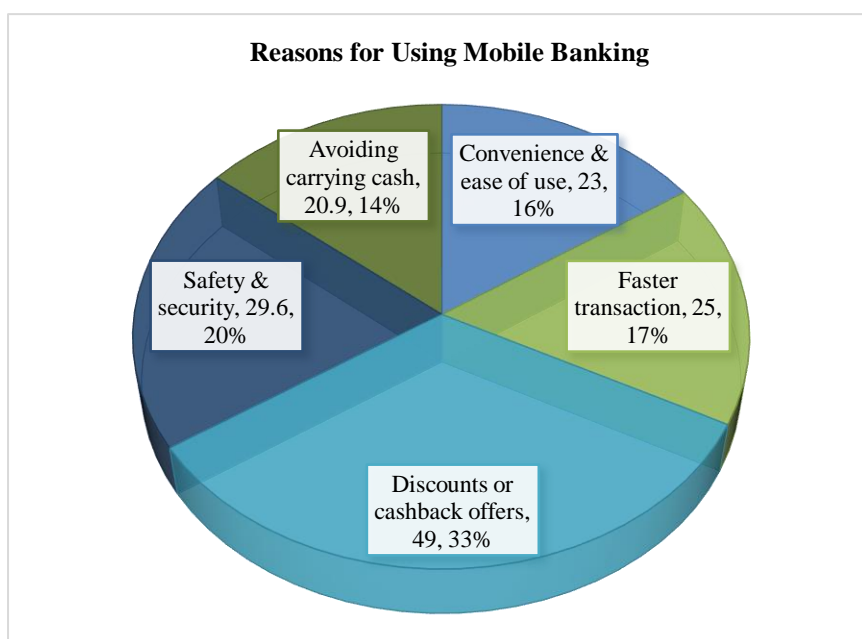| Reasons	No. of Respondents	Respondents %
Convenience & ease of use	45	23
Faster transaction	49	25
Discounts or cashback offers	96	49
Safety & security	58	29.6
Avoiding carrying cash	41	20.9

Fig 4.6: Reasons for Using Mobile Banking

Interpretation: Incentives play vital role in adoption of MFS. Convenience, faster transaction, being cashless, safety & security impacts almost similarly on MFS adoption & usage.

By tailoring payment experiences to these demonstrated preferences, small apparel businesses can simultaneously enhance operational efficiency, build trust, and create competitive advantages in Bangladesh's rapidly digitizing fashion market.

Impact on Customer Satisfaction and Shopping Behavior

Changes in Shopping Behavior

Table 4.7: Changes in Shopping Behavior

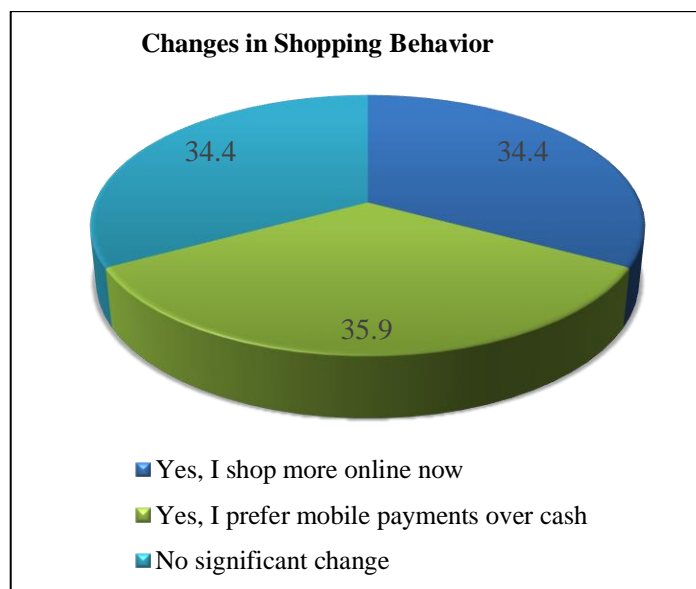| Changes in Shopping Behavior	No. of Respondents	Respondents %
Yes, I shop more online now	67	34.4
Yes, I prefer mobile payments over cash	70	35.9
No significant change	67	34.4

Fig 4.7: Changes in Shopping Behavior

Interpretation: Mobile banking encourages online purchases although one-third people still prefer shopping offline/physically. This digital-first approach also provides enhanced scalability potential, allowing entrepreneurs to manage inventory more efficiently through real-time sales data and automate customer interactions via integrated payment systems. The combined effect of these advantages - improved cash flow, broader customer acquisition, and operational scalability - creates a powerful foundation for sustainable business growth in Bangladesh's increasingly digital apparel market. Critically, these benefits are particularly accessible to micro-entrepreneurs and home-based businesses that can implement MFS solutions with minimal upfront investment compared to traditional retail models.

Satisfaction Levels

Table 4.8: Satisfaction Levels

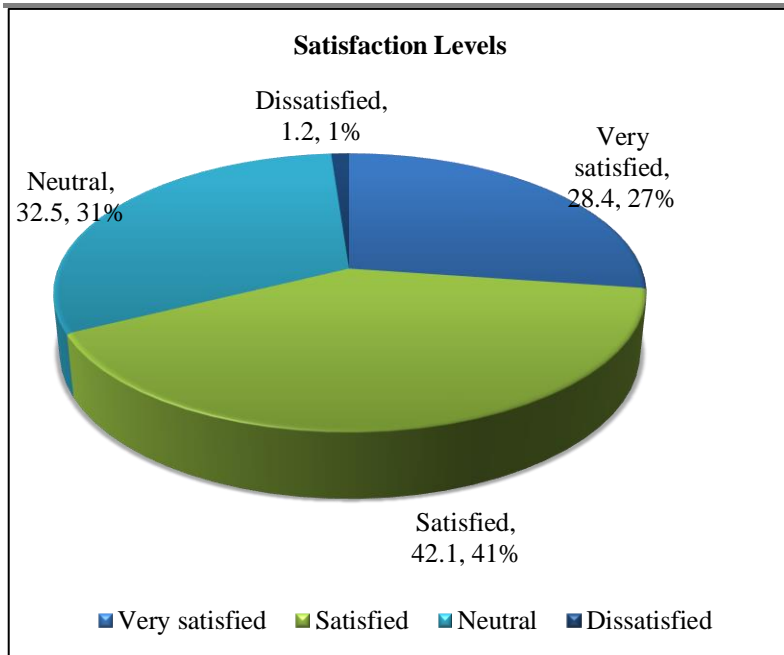| Satisfied	No. of Respondents	Respondents %
Very satisfied	48	28.4
Satisfied	83	42.1
Neutral	64	32.5
Dissatisfied	2	1

Fig 4.8: Satisfaction Levels

Interpretation: High satisfaction correlates with convenience and security, but network issues and transaction delays cause dissatisfaction. The strong 42.1% satisfaction rate with mobile payments demonstrates how digital financial services directly fuel business growth for apparel entrepreneurs. This consumer approval translates to three strategic advantages: higher customer lifetime value through increased repeat purchases, smoother sales processes with reduced payment friction, and stronger appeal to digital-native shoppers who prefer cashless transactions. For small businesses, these benefits combine to create a competitive edge in Bangladesh's rapidly modernizing apparel market.

Challenges Faced

Table 4.9: Challenges Faced

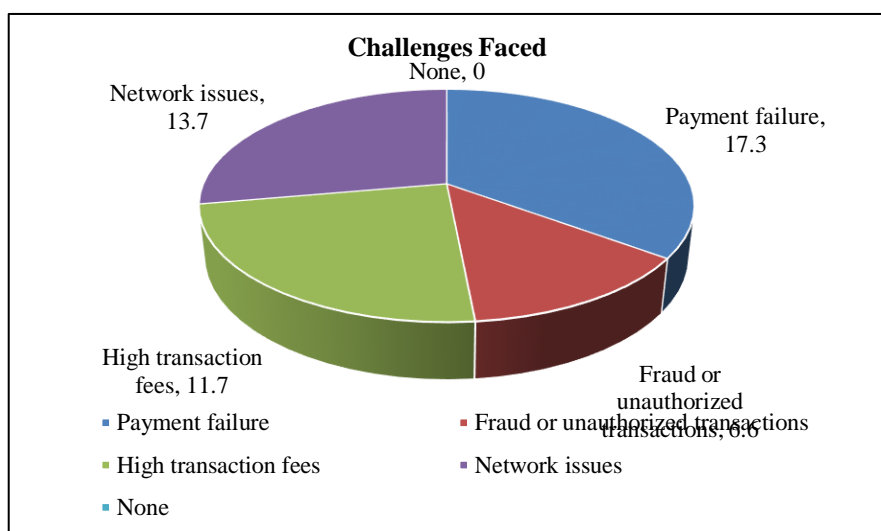| Challenges Faced	No. of Respondents	Respondents %
Payment failure/delay	34	17.3
Fraud or unauthorized transactions	13	6.6
High transaction	23	11.7
Network issues	66	13.7
None	100	52.6

Fig 4.9: Challenges Faced

Interpretation: Most of the people feels there are no challenges. Yet Infrastructure limitations and security concerns hinder full adoption.

he identified payment challenges - including network issues (13.7%), transaction failures (17.3%), and security concerns (6.6%) - present valuable opportunities for apparel entrepreneurs to differentiate their businesses in Bangladesh's competitive market.

Impact of MFS on encouraging customers to buy from self-employed small apparel business

Preferred Shopping Sources

Table 4.10: Preferred Shopping Source

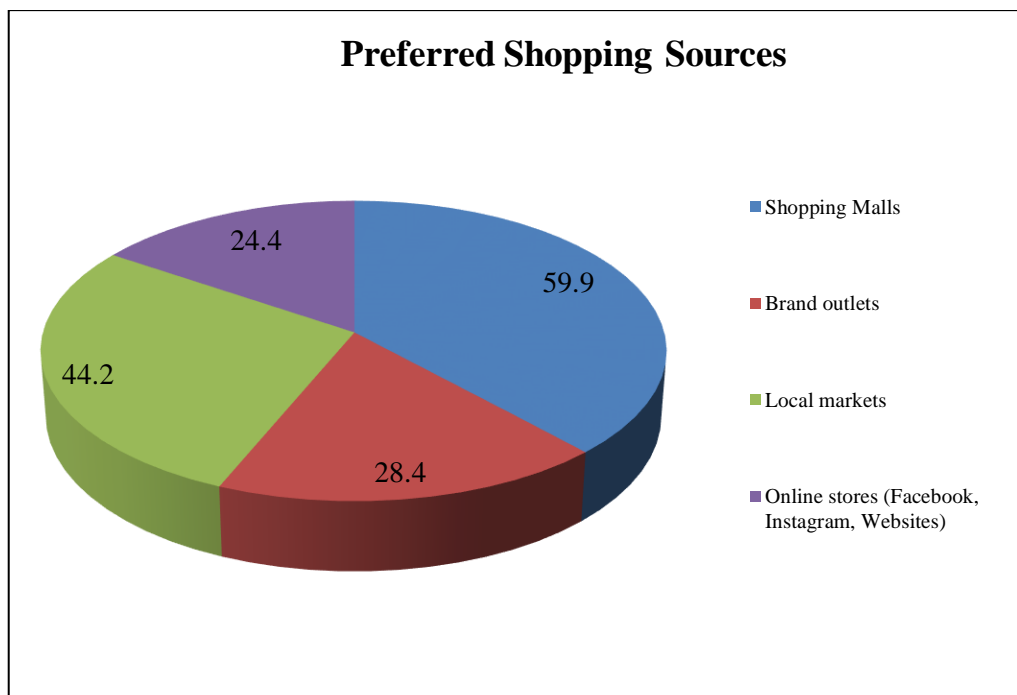| Sources	No. of Respondents	Respondents %
Shopping malls	118	59.9
Brand outlets	56	28.4
Local markets	87	44.2
Online stores (Facebook, Instagram, Websites)	48	24.4

Fig 4.10: Preferred Shopping Sources

Interpretation: Graph indicates that malls & local markets dominate as preferred shopping location due to trustworthiness and direct bargain methods are pivotal in this case. The online stores and brand are catching up them by emerging digital commerce trends and strong adoption among brand-conscious consumers. In all cases, Mobile banking is widely used in formal retail.

Small apparel business using MFS

Table 4.11: small apparel business using MFS

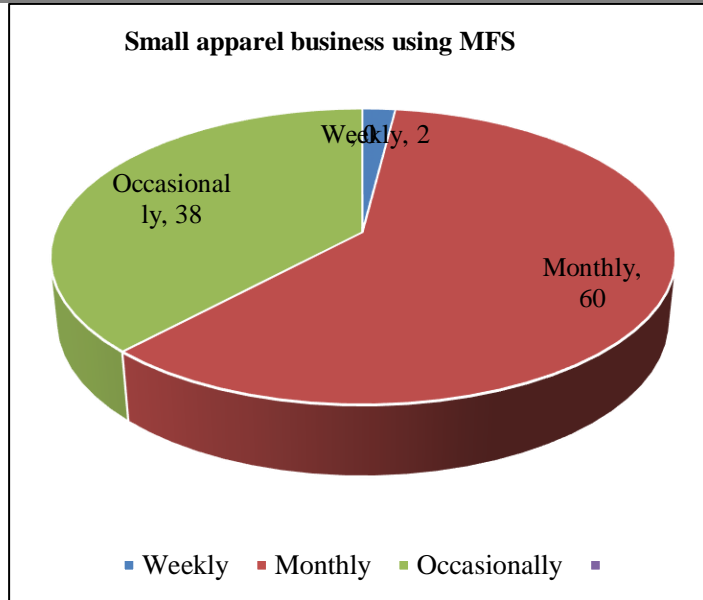| small apparel business using MFS	No. of Respondents	Respondents %
Weekly	3	2
Monthly	119	60
Occasionally	76	38

Fig 4.11: small apparel business using MFS

Interpretation: This survey highlights how Mobile Financial Services (MFS) is boosting small apparel businesses in Bangladesh by enabling convenient digital transactions. Since 60% of customers use MFS monthly, it provides steady cash flow for entrepreneurs, reducing reliance on cash handling. The 38% occasional users indicate growing trust in digital payments, even for sporadic purchases, while the low 2% weekly usage suggests room for growth through targeted promotions. By making transactions faster, safer, and more accessible—especially for unbanked customers—MFS empowers small apparel entrepreneurs to expand their reach, improve sales, and operate more efficiently in Bangladesh's digital economy.

MFS availability encourages small apparel businesses

Table 4.12: MFS availability encourages small apparel businesses

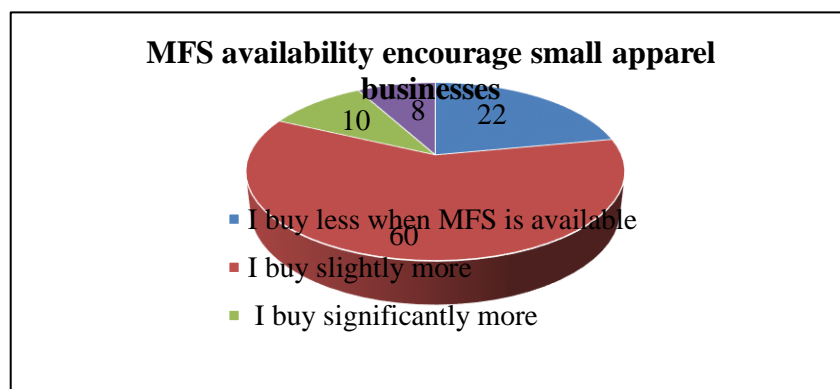| MFS availability encourages small apparel businesses	No. of Respondents	Respondents %
I buy less when MFS is available	0	0
I buy less when MFS is available	44	22
I buy slightly more	119	60
I buy significantly more	20	10
I only buy when MFS is available	15	8

Fig 4.12: MFS availability encourages small apparel businesses

Interpretation: This survey reveals that Mobile Financial Services (MFS) significantly boosts sales for small apparel businesses in Bangladesh. A strong majority (60%) of customers buy slightly more when MFS is available, while 10% purchase significantly more, proving that digital payments drive higher spending which helps to develop small apparel business. Additionally, 8% exclusively buy when MFS is offered, highlighting its role in capturing cashless customers. Although 22% buy less with MFS (possibly due to trust issues or transaction fees), none (0%) completely avoid it, confirming its broad acceptance.

For small apparel entrepreneurs, MFS expands customer reach, increases sales volume, and ensures secure transactions, reducing cash dependency. By integrating MFS, businesses can attract digital-first buyers, encourage impulse purchases, and improve financial inclusion, making it a vital tool for growth in Bangladesh's evolving digital economy.

RESULTS

This study highlights how mobile banking is transforming Bangladesh's clothing sector, with bKash leading adoption due to its convenience and reliability. Younger consumers (18-25 years) are driving this shift, increasingly preferring digital payments over cash. Most importantly, MFS is proving to be a powerful enabler for small apparel entrepreneurs. The study found that:

Firstly, increased Purchases: Customers reported buying "significantly more" from small businesses when MFS is available, as it simplifies transactions and builds trust.

Secondly, market Expansion: Small entrepreneurs leveraging social media (Facebook/Instagram) and MFS can tap into broader customer bases, including younger, tech-savvy demographics.

Thirdly, financial Inclusion: MFS provides home-based and small-scale apparel businesses—often excluded from formal banking—with tools to manage cash flow, receive payments instantly, and reinvest in growth. To sustain this progress, targeted interventions are needed:

- Infrastructure Improvements: Addressing network issues and transaction delays to boost rural adoption.

- Security Enhancements: Combating fraud risks to strengthen consumer and entrepreneur confidence.

- Entrepreneur Training: Educating small businesses on leveraging MFS features (e.g., discounts, seamless integrations) to attract and retain customers.

CONCLUSIONS

In conclusion, mobile financial services are not only modernizing Bangladesh's clothing retail sector but also empowering small apparel entrepreneurs to thrive in a digital economy. By addressing existing challenges, stakeholders can unlock further potential for inclusive and sustainable growth. Further research could also examine the role of government policies and emerging technologies, such as AI-powered financial tools, in supporting micro-entrepreneurs. These efforts would provide deeper insights into optimizing MFS for small business growth.

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Appendix

Title: The Influence of Mobile Financial Service–Driven Consumer Engagement on the Growth of Small Apparel Entrepreneurship in Bangladesh

Dear Respondent,

This survey aims to understand how customers use mobile banking for clothing purchases. Your responses will remain confidential and will only be used for research purposes.

Section 1: General Information

1. **What is your age group?**

o ☐ Below 18

o ☐ 18 – 25

o ☐ 26 – 35

o ☐ 36 – 45

o ☐ 46 and above

2. **What is your gender?**

o ☐ Male

o ☐ Female

o ☐ Other

Section 2: Mobile Banking Adoption & Usage

3. **Do you use mobile banking services for payments?**

o ☐ Yes

o ☐ No

4. **Which mobile banking service do you use most for clothing purchases?**

o ☐ bKash

o ☐ Nagad

o ☐ Rocket

o ☐ Upay

o ☐ Other (Please specify) _____

5. **How often do you use mobile banking to buy clothing?**

o ☐ Always

o ☐ Often

o ☐ Sometimes

o ☐ Rarely

o ☐ Never

6. **What are your main reasons for using mobile banking for clothing purchases?** (Select all that apply)

o ☐ Convenience & ease of use

o ☐ Faster transactions

o ☐ Discounts or cashback offers

o ☐ Safety & security

o ☐ Avoiding carrying cash

o ☐ Other (Please specify) _____

Section 3: Impact on Shopping Behavior & Satisfaction

7. **Has mobile banking changed your shopping behavior for clothing?**

o ☐ Yes, I shop more online now

o ☐ Yes, I prefer mobile payments over cash

o ☐ No significant change

8. **How satisfied are you with mobile banking services for clothing purchases?**

o ☐ Very satisfied

o ☐ Satisfied

o ☐ Neutral

o ☐ Dissatisfied

o ☐ Very dissatisfied

9. **Have you ever faced any issues while using mobile banking for clothing purchases?** (Select all that apply)

- ☐ Payment failure/delay

- ☐ Fraud or unauthorized transactions

- ☐ High transaction fees

- ☐ Network issues

- ☐ None

10. **If yes, what payment method do you prefer for clothing purchases?**
- ☐ Mobile banking (bKash, Nagad, Rocket, etc.)

- ☐ Cash on delivery

- ☐ Debit/Credit card

- ☐ Bank transfer

Section 4: Impact of MFS on encouraging customers to buy from self-employed small apparel business

11. **Where do you usually shop for clothing?** (Select all that apply)

o ☐ Shopping malls

o ☐ Brand outlets

o ☐ Local markets

o ☐ Online stores (Facebook, Instagram, websites)

12. **How do you often buy from small apparel business using MFS?(Online sellers, resellers, home boutiques)**

o ☐ Weekly

o ☐ Monthly

o ☐ Occasionally

13. Does MFS availability encourage you to buy more from small apparel businesses?

o ☐ I buy less when MFS is available

o ☐ No change in my buying

o ☐ I buy slightly more

o ☐ I buy significantly more

o ☐ I only buy when MFS is available