



(REVIEW ARTICLE)



A short review of Mobile Financial Services in Bangladesh

Jubair Bin Sharif ^{1,*}, Mobasher Hasan ², Md. Kwosar ^{3,4}, Md. Faysal Ahmed ⁵ and Pabitra Mandal ^{6,7}

¹ *Brac Business School, Brac University, Dhaka-1212, Bangladesh.*

² *School of Business, San Francisco Bay University, Fremont, CA 94539, USA.*

³ *National University, Bangladesh, Gazipur, Bangladesh.*

⁴ *Institute of Cost and Management Accountants of Bangladesh (ICMAB), Dhaka-1205, Bangladesh.*

⁵ *Shaikh Borhanuddin Postgraduate College, Affiliated by National University, Dhaka-1100, Bangladesh.*

⁶ *Medical Assistant Training School, Bagerhat, Bangladesh.*

⁷ *Faculty of Business Administration, Royal University of Dhaka, Dhaka-1213, Bangladesh.*

World Journal of Advanced Research and Reviews, 2024, 23(02), 2479–2485

Publication history: Received on 19 July 2024; revised on 25 August 2024; accepted on 28 August 2024

Article DOI: <https://doi.org/10.30574/wjarr.2024.23.2.2610>

Abstract

This review provides an overview of the current landscape of Mobile Financial Services (MFS) in Bangladesh, focusing on its evolution, adoption, and socio-economic impact. MFS in Bangladesh has grown significantly since its inception in 2011, driven by widespread mobile phone usage, a burgeoning population, and the need for accessible financial services in a country with a significant unbanked population. Mobile banking has democratized financial services, bringing millions of unbanked citizens into the formal financial system, particularly in rural and remote areas.

The review highlights the major players in the MFS sector, such as bKash, Rocket, and Nagad, which dominate the market with innovative services that cater to various financial needs, including money transfers, bill payments, and merchant payments. These services have significantly reduced the barriers to financial inclusion, providing a secure, convenient, and cost-effective alternative to traditional banking. The sector's growth has been bolstered by supportive regulatory frameworks from the Bangladesh Bank, encouraging innovation while ensuring consumer protection.

Keywords: Mobile Financial Services (MFS); Financial Inclusion; bKash; Rocket; Nagad; Digital Payments; Mobile Banking; Fintech; Digital Literacy; Socio-economic Impact; Regulatory Framework

1. Introduction

The global trend of advancing the Internet and mobile phones has significantly boosted the acceptance of mobile commerce (m-commerce) worldwide [1, 2]. Mobile financial services (MFS), a key component of m-commerce, enable users to handle financial transactions like transferring funds, making deposits, or paying bills through mobile devices or applications [3]. This development offers a convenient, reliable, user-friendly, and secure method for transactions for both clients and agents [4]. Consequently, research into factors influencing MFS and m-banking user attitudes and behaviors has gained traction in academia and business, helping marketers devise effective strategies for customer acquisition and retention [5-9]. By applying the technology acceptance model (TAM) (Davis et al., 1989) and related theories, studies have identified key predictors such as perceived usefulness (PU), ease of use (PEOU), subjective norms, functional and emotional benefits, consumer innovativeness, demographics, perceived risk, and facilitating conditions that affect user attitudes and intentions towards m-commerce/m-payment/MFS (Yang, 2005; Hsu et al., 2011; Yen and Wu, 2016; Chi, 2018; Gupta and Manrai, 2019; Al-Saedi et al., 2020; Jung et al., 2020; Manrai and Gupta, 2020).

* Corresponding author: Jubair Bin Sharif

Bangladesh Bank has introduced efficient off-branch Mobile Financial Services (MFS) during 2011 in Bangladesh as the country acquired an omnipresent mobile phone network experienced, large number of mobile phone users and improved IT infrastructure. Within ten years, this exponentially growing Bank-Led model of MFS has become the largest MFS market in the world.

Bangladesh Bank permits Cash in, Cash out, Person to Person (P2P), Person to Business (P2B), Business to Person (B2P), Person to Government (P2G) and Government to Person (G2P) payment services through MFS domestically. No cross border money transfer is allowed under this service. However, local disbursement of inward foreign remittance comes through banking channel is permitted. Any adult can open MFS account with any provider at an agent point or bank branch with a photo and legal identification. In this case, having more than one MFS account by one person with the same provider is not permitted.

According to PSD Circular No. 13 published on December 06, 2023, Bangladesh Bank has raised the maximum limit to Tk 2.5 lac (excluding the incentives) to send to MFS accounts by expatriates. MFS account can hold a balance of a maximum of Tk 3 lac at a time. However, if the balance exceeds Tk 3 lac after the receipts of remittances, further amounts can only be added once the balance comes down to Tk 3 lac.

2. Importance of Mobile Financial Services in Bangladesh

The financial system is a cornerstone of modern society, constantly evolving to introduce new facilities and services. Mobile financial services (MFS) represent one of these significant innovations. In Bangladesh, the expansion of MFS is driven by intense competition in the financial market and the pursuit of greater market share. This growth has had a profound impact on the country's economic development and financial inclusion.

In Bangladesh, where a large portion of the population remains unbanked, MFS plays a crucial role in bridging the gap between formal financial institutions and underserved communities. These services provide a critical tool for integrating individuals into the financial system who previously lacked access to traditional banking due to geographic, economic, or social barriers.

The advent of MFS has brought transformative changes to both financial products and institutional structures. It allows financial institutions to reach low-income individuals and small business owners, who might otherwise be excluded from the formal economy. This accessibility helps drive economic growth and alleviates poverty by enabling broader participation in financial activities, including saving, borrowing, and investing.

Before the rise of MFS, financial institutions faced challenges in delivering services to impoverished communities due to the high costs and logistical difficulties associated with traditional banking technologies. MFS addresses these challenges by leveraging mobile technology to provide financial services at a lower cost and with greater convenience. This technological shift makes it possible to serve remote or economically disadvantaged areas that were previously inaccessible.

The impact of MFS is multi-faceted and extends beyond just providing financial services. Its ability to generate revenue and offer financial solutions in previously underserved markets makes it a strategic priority for government entities. These agencies are increasingly recognizing the value of MFS and are providing necessary legal frameworks and policy support to ensure the growth of these services. This includes establishing regulatory measures to enhance security, promote transparency, and implement appropriate taxation to safeguard the financial system and encourage further investment in MFS.

Furthermore, MFS introduces an alternative to traditional banking methods, including bank branches and ATMs. For rural populations and those in remote areas, this alternative is particularly significant. It provides a more accessible and efficient means of engaging with the formal banking sector, allowing individuals who might have previously been excluded from financial services to participate more fully in the economy.

Overall, the significance of MFS in Bangladesh lies in its ability to drive economic inclusion, support financial development, and offer a practical solution to the challenges faced by underserved communities. Its continued expansion promises to enhance financial accessibility and contribute to the broader goals of economic growth and poverty reduction in the country.

3. MFS Providers

The current MFS providers are described in table 1.

Table 1 MFS providers in Bangladesh

Sl. No.	Name of the MFS Service	Name of the Business Entity
1	ROCKET	DBBL
2	bKash	bKash Ltd.
3	MYCash	Mercantile Bank Ltd.
4	Islami Bank mCash	Islamic Bank Bangladesh Ltd.
5	Trust Axiata pay:tap	Trust Axiatia Digital Ltd.
6	FirstCash	First Security Islami Bank Ltd.
7	Upay	UCB Fintech Company Ltd.
8	OK Wallet	One Bank Ltd.
9	Rupali Bank	Rupali Bank Ltd.
10	TeleCash	Southeast Bank Ltd.
11	Islamic Wallet	Al-Arafah Islami Bank Ltd.
12	Meghna Pay	Meghna Bank Ltd.
13	Nagad	Bangladesh Post Office

bKash Limited, the country's premier mobile financial services provider, reported a net profit of Tk103.91 crore in 2023, marking a staggering five-fold increase from the preceding year. Its financial statement indicates a significant turnaround, achieving an operating profit of Tk30 crore last year, compared to a loss of Tk76 crore in 2022, the MFS provider said in a statement [21]. The subsidiary of BRAC Bank demonstrated robust revenue growth, surging by 22% to Tk4,190 crore compared to 2023 [21].

NexusPay, introduced by Dutch-Bangla Bank, is Bangladesh's first fully cardless payment solution. It is compatible with all types of bank cards, including Nexus, Visa, MasterCard, Dutch-Bangla Bank Agent Banking, and Rocket Mobile Banking. By the end of 2023, the number of merchants accepting Dutch-Bangla Bank NexusPay (QR Code) stood at 99,918, while the number of NexusPay users reached 6,280,627. Additionally, Dutch-Bangla Bank has implemented a Toll Collection System, managing toll payments through 12 Fast Track Lanes across the country [22].

In 2023, Bangladesh Bank instructed all banks to provide humanitarian aid or food materials in observance of "National Mourning Day-2023," commemorating the 48th death anniversary of the Father of the Nation, Bangabandhu Sheikh Mujibur Rahman. Following this directive, Dutch-Bangla Bank allocated Taka 2.00 million to provide humanitarian aid and food supplies to 1,000 impoverished families in the Haor and Char areas of Bhola and Sunamganj districts, distributing Taka 2,000 per family [22].

Dutch-Bangla Bank carried out this initiative in collaboration with 'Padakhep Manabik Unnayan Kendra,' a leading NGO with an extensive network for reaching grassroots and ultra-poor populations across the country. The entire fund of Taka 2.00 million was disbursed directly into the Rocket accounts of 1,000 beneficiaries in the targeted regions, ensuring timely and effective assistance [22].

4. Comparative Summary of MFS transactions

Table 2 Mobile Financial Services (MFS) comparative summary statement

Sl. No.	Description	April, 2024	May, 2024	June, 2024
Industry Wise Operation				
1	No. of Banks	13	13	13
2	No. of Agents	1779739	1794348	1807657
3	Total no. of MFS users in lac	2265.06	2299.19	2324.18
4	No. of active accounts in lac	867.55	879.78	918.13
5	No. of total transactions	613259126	606816477	642733275
6	Total transactions in crore BDT	145459.64	141579.89	155704.72
7	Average Daily Transaction in crore BDT	4848.65	4567.09	5190.16
Product Wise Information Amount (in crore BDT)				
1	Inward Remittance	856.39	722.99	949.01
2	Cash in	41796.28	40485.47	43562.23
3	P2P	37904.43	36161.59	37854.40
4	Salary Disbursement (B2P)	4498.09	4051.09	5891.13
5	Utility Bill Payment (P2B)	2520.42	3017.29	3093.12
6	Merchant Payment	6603.04	6728.27	6400.05
7	Government Payment	959.99	2153.29	3209.30
8	Others	2661.67	2507.77	3383.73
[1 lac = 0.10 million and 1 crore = 10 million]				

Table 2 provides an overview of the Mobile Financial Services (MFS) industry in Bangladesh, showcasing key operational and financial metrics over a three-month period—April, May, and June 2024.

4.1. Industry-Wise Operation:

- No. of Banks: Remains constant at 13 across all three months.
- No. of Agents: The number of agents slightly increases each month, from 17,797,739 in April to 18,076,757 in June.
- Total No. of MFS Users (in lac): The number of users increases gradually from 22.65 crore (2265.06 lac) in April to 23.24 crore (2324.18 lac) in June.
- No. of Active Accounts (in lac): Active accounts also show a steady rise from 8.67 crore (867.55 lac) in April to 9.18 crore (918.13 lac) in June.
- No. of Total Transactions: The total number of transactions rises each month, from 613.26 million (613,259,126) in April to 642.73 million (642,733,275) in June.
- Total Transactions (in crore BDT): The monetary value of transactions also increases, from BDT 145,459.64 crore in April to BDT 155,704.72 crore in June.
- Average Daily Transaction (in crore BDT): The average daily transaction value starts at BDT 4848.65 crore in April and rises to BDT 5190.16 crore in June.

4.2. Product-Wise Information (Amount in crore BDT):

- Inward Remittance: Varies each month, starting at BDT 856.39 crore in April and peaking at BDT 949.01 crore in June.

- Cash In: Shows a consistent increase from BDT 41,796.28 crore in April to BDT 43,562.23 crore in June.
- P2P (Person to Person): This metric sees fluctuations, with BDT 37,904.43 crore in April and BDT 37,854.40 crore in June.
- Salary Disbursement (B2P): This amount increases significantly, from BDT 4,498.09 crore in April to BDT 5,891.13 crore in June.
- Utility Bill Payment (P2B): Utility bill payments show steady growth, from BDT 2,520.42 crore in April to BDT 3,093.12 crore in June.
- Merchant Payment: Also shows a steady increase, from BDT 6,603.04 crore in April to BDT 6,400.05 crore in June.
- Government Payment: Increases from BDT 959.99 crore in April to BDT 3,209.30 crore in June.
- Others: The category "Others" sees a steady rise, from BDT 2,661.67 crore in April to BDT 3,383.73 crore in June.
- Overall, the table highlights the consistent growth of the MFS sector in Bangladesh, both in terms of user engagement and financial transactions over the three months observed.

5. Socio-Economic Impact

One of the most notable socio-economic impacts of MFS in Bangladesh is the increase in financial inclusion. Prior to the advent of MFS, a significant portion of the Bangladeshi population, particularly in rural areas, lacked access to formal banking services [24]. According to the Bangladesh Bank, only about 40% of the adult population had access to formal financial services before 2011. With the rise of MFS, this figure has drastically improved, with more than 60% of adults now having access to financial services through mobile platforms. This shift has empowered millions of unbanked individuals, allowing them to participate in the formal economy, save money, and access credit [29].

MFS has also had a significant impact on poverty alleviation and income generation. By providing easy access to financial services, MFS has enabled low-income individuals, particularly women and small business owners, to save, invest, and grow their businesses. A study by the Consultative Group to Assist the Poor (CGAP) found that households using MFS in Bangladesh experienced a 20% increase in their monthly income compared to those that did not use such services. This has contributed to poverty reduction and improved living standards for many Bangladeshis [24-28].

Additionally, MFS has facilitated the flow of remittances, both domestic and international, which are crucial for the livelihoods of many families in Bangladesh. According to data from the Bangladesh Bank, domestic remittances through MFS amounted to over BDT 1.4 trillion in 2022, highlighting the critical role MFS plays in supporting household incomes. The ease and affordability of sending money via mobile platforms have also reduced transaction costs, enabling more funds to reach beneficiaries.

Furthermore, the adoption of MFS has spurred economic growth by increasing the velocity of money and supporting the expansion of the digital economy. MFS has enabled micro, small, and medium-sized enterprises (MSMEs) to access financial services that were previously out of reach, allowing them to expand operations, enhance productivity, and contribute to job creation.

6. Conclusion

In conclusion, the MFS sector in Bangladesh has made significant strides in improving financial inclusion and driving socio-economic development. Its future success will depend on overcoming current challenges, continuing to innovate, and expanding its reach to ensure that all segments of society can benefit from the digital financial revolution. The potential for MFS to further enhance the economic fabric of Bangladesh remains substantial, making it a critical component of the country's financial ecosystem.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest is to be disclosed.

References

- [1] Rosa, J.A. and Malter, A.J. (2003), E-(embodied) knowledge and e-commerce: how physiological factors affect online sales of experiential products, *Journal of Consumer Psychology*, Vol. 13, Nos 1-2, pp. 63-7
- [2] Kumar, V., Nim, N. and Sharma, A. (2019), Driving growth of Mwallets in emerging markets: a retailer's perspective, *Journal of the Academy of Marketing Science*, Vol. 47 No. 4, pp. 747-769
- [3] Al-Saedi, K., Al-Emran, M., Ramayah, T. and Abusham, E. (2020), Developing a general extended UTAUT model for M-payment adoption, *Technology in Society*, Vol. 62, p. 101293
- [4] Chen, L.D. (2008), A model of consumer acceptance of mobile payment, *International Journal of Mobile Communications*, Vol. 6 No. 1, pp. 32-52, doi: 10.1504/IJMC.2008.015997.
- [5] Malik, A., Kumra, R. and Srivastava, V. (2013), Determinants of consumer acceptance of m-commerce, *South Asian Journal of Management*, Vol. 20 No. 2, p. 102.
- [6] Saleh, Z. and Mashhour, A. (2014), Consumer attitude towards m-commerce: the perceived level of security and the role of trust, *Journal of Emerging Trends in Computing and Information Sciences*, Vol. 5 No. 2, pp. 111-117
- [7] Slade, E., Williams, M., Dwivedi, Y. and Piercy, N. (2015), Exploring consumer adoption of proximity mobile payments, *Journal of Strategic Marketing*, Vol. 23 No. 3, pp. 209-223
- [8] Abdinoor, A. and Mbamba, U.O. (2017), Factors influencing consumers' adoption of mobile financial services in Tanzania, *Cogent Business and Management*, Vol. 4 No. 1, p. 1392273
- [9] Cui, Y., Mou, J., Cohen, J., Liu, Y. and Kurcz, K. (2020), Understanding consumer intentions toward cross-border m-commerce usage: a psychological distance and commitment-trust perspective, *Electronic Commerce Research and Applications*, Vol. 39, p. 100920
- [10] <https://www.bb.org.bd/en/index.php/financialactivity/mfsdata>
- [11] Hoque, K., Hossain, M. B., Sami, A., Das, D., Kadir, A., & Rahman, M. A. (2024). Technological trends in 5G networks for IoT-enabled smart healthcare: A review. *International Journal of Science and Research Archive*, 12(2), 1399-1410.
- [12] Maniruzzaman, M., Sami, A., Hoque, R., & Mandal, P. (2024). Pneumonia prediction using deep learning in chest X-ray Images. *International Journal of Science and Research Archive*, 12(1), 767-773.
- [13] Ara, A., Sami, A., Michael, D. L., Bazgir, E., & Mandal, P. (2024). Hepatitis C prediction using SVM, logistic regression and decision tree. *World Journal of Advanced Research and Reviews*, 22(2), 926-936.
- [14] Hasan, A. S. M., & Ibrahim, A. A. (2022, October). Improved WBAN EH_ MAC Protocol based on Energy Harvesting and Wake up-Sleep Duty Cycling Technique. In *2022 International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT)* (pp. 478-483). IEEE.
- [15] Rahman, F., Das, D., Sami, A., Podder, P., & Michael, D. L. (2024). Liver cirrhosis prediction using logistic regression, naïve bayes and KNN. *International Journal of Science and Research Archive*, 12(01), 2411–2420.
- [16] Hoque, R., Das, S., Hoque, M., & Haque, E. (2024). Breast Cancer Classification using XGBoost. *World Journal of Advanced Research and Reviews*, 21(2), 1985-1994.
- [17] Hoque, R., Maniruzzaman, M., Michael, D. L., & Hoque, M. (2024). Empowering blockchain with SmartNIC: Enhancing performance, security, and scalability. *World Journal of Advanced Research and Reviews*, 22(1), 151-162.
- [18] Hoque, R., Billah, M., Debnath, A., Hossain, S. S., & Sharif, N. B. (2024). Heart Disease Prediction using SVM. *International Journal of Science and Research Archive*, 11(2), 412-420.
- [19] Joyeshree Biswas, Md Masum Billah, Amit Deb Nath, Numair Bin Sharif, Iqtiaar Md Siddique . Operational Advancement Through Data-Driven Machine Learning Techniques. *International Journal of Computer Applications*. 186, 15 (Apr 2024), 45-51. DOI=10.5120/ijca2024923527
- [20] Amit Deb Nath, Rahmanul Hoque, Md. Masum Billah, Numair Bin Sharif, Mahmudul Hoque . Distributed Parallel and Cloud Computing: A Review. *International Journal of Computer Applications*. 186, 16 (Apr 2024), 25-32. DOI=10.5120/ijca2024923547
- [21] <https://www.tbsnews.net/economy/banking/bkash-makes-tk103-crore-profit-2023-846386>

- [22] <https://www.dutchbanglabank.com/investor-relations/Annual-Report-2023/Annual-Report-2023.pdf>
- [23] Sarker, B., Sarker, B., Podder, P., & Robel, M. R. A. (2020). Progression of Internet Banking System in Bangladesh and its Challenges. *International Journal of Computer Applications*, 177(29), 11-15.
- [24] Kumar, D. (2022). Prospects and challenges of mobile financial services (MFS) in Bangladesh. *Handbook of research on social impacts of E-payment and blockchain technology*, 320-341.
- [25] Khandoker Hoque, Md Baktiar Hossain, Denesh Das, Partha Protim Roy, "Integration of IoT in Energy Sector", *International Journal of Computer Applications* (0975–8887), 2024.
- [26] Ghadah Al-Khafaji, Anhar Sami, "Medical Image Compression based on Polynomial Coding and Region of Interest", *Journal of Al-Hussein University*, 1(5), pp. 48-59, 2019.
- [27] Javed Mehedi Shamrat, F. M., Tasnim, Z., Chowdhury, T. R., Shema, R., Uddin, M. S., & Sultana, Z. (2022). Multiple cascading algorithms to evaluate performance of face detection. In *Pervasive Computing and Social Networking: Proceedings of ICPCSN 2021* (pp. 89-102). Springer Singapore.
- [28] Javed Mehedi Shamrat, F. M., Ghosh, P., Tasnim, Z., Khan, A. A., Uddin, M. S., & Chowdhury, T. R. (2022). Human Face recognition using eigenface, SURF method. In *Pervasive Computing and Social Networking: Proceedings of ICPCSN 2021* (pp. 73-88). Springer Singapore.
- [29] Dona, P. D., Mouri, S. M., Hasan, M., & Abedin, M. Z. (2014). Significance of exponential uses of mobile financial services (MFS) in Bangladesh. *Global Journal of Management and Business Research*, 14(4), 93-101.
- [30] Hasan, A. S. M., & Ibrahim, A. A. (2022, October). Improved WBAN EH_ MAC Protocol based on Energy Harvesting and Wake up-Sleep Duty Cycling Technique. In *2022 International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT)* (pp. 478-483). IEEE.