Citizen Perspective on M-Governance and Ethical Challenges in Bangladesh

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Literature Review

Abstract

E-governance enhances public services, lowers corruption, and encourages state modernization. In a rapidly developing nation like Bangladesh, an e-government is not only a symbol of modernity but also a strategic tool for attaining the Sustainable Development Goals and inclusive economic growth. Bangladesh is in the vanguard of the least developed countries' digital transformation thanks to the government's Smart Bangladesh (Vision 2041) plans, which seek to accelerate the shift to digital public services. Despite improvements in internet services and communication networks, Bangladesh is predicted to remain the least developed nation in the UN E-Government Development Index by 2026. Additionally, the government launched services for mobile government, or m-government. Mobile phones are used by these services to facilitate transactions and provide information. For instance, users can use SMS or mobile apps to check their test results, pay bills, and get notifications from the government. In Bangladesh, where computer ownership is low but cell phone penetration is strong, this strategy is very helpful. To facilitate cashless transactions, the government collaborated with mobile banking service companies. For bill payment, money transfers, and business transactions, services like bKash, Nagad, and Rocket gained popularity. However, citizens face severe ethical difficulties with these services. This study examines the ethical issues surrounding the M-governance experience, namely mobile financial services. Finally, it suggests methods for embedding ethics at all levels of M-governance, such as strong data security legislation, digital literacy and equity initiatives, interconnected platforms, and ethical bureaucratic stewardship.

Keywords: Bangladesh, E-Governance, Ethical Challenges, Information and Communication Technology, Mobile Financial Services.

1. Introduction

Global public sector transformation has been sparked by e-governance, which is the integration and application of information and communication technologies (ICT) in government services, communication, and management. ICT has transformed state-citizen relations over the past three decades by removing information barriers, facilitating real-time service delivery, and creating new venues for participation. E-governance is increasingly important to the Sustainable Development Goals (SDGs) of the UN, the World Bank, and regional organizations, which support inclusive development, justice, peace, and efficient institutions. The government must now concentrate on offering its citizens effective and efficient services (Tiwari & Tiwari, 2020). For Bangladesh, e-governance involves more than just a technological development. It is an opportunity to overcome old patterns of inefficiency, opacity, and exclusion that have characterized day-to-day governance for as long as anybody

can remember. Digital Bangladesh (Vision 2021) and Smart Bangladesh (Vision 2041) are explicit promises to connect ICT for the common welfare. These programs seek to digitalize public administration, promote transparency, and broaden access to services, using the momentum of a tech-savvy community and expanding connectivity. The growing usage of mobile technology has made mobile governance, or M-governance, an essential component of modern digital government strategy.

M-governance is the use of mobile devices and wireless communication technology to provide government services, distribute information, and foster citizen-state connections. As an extension of e-governance, it promises increased responsiveness, timeliness, and accessibility, particularly in poor countries where mobile use outpaces internet connectivity (S. M. Islam & Grönlund, 2012). Bangladesh has identified mobile governance as a critical component in achieving its "Digital Bangladesh" aim, with mobile platforms used to provide services in health, agriculture, disaster management, social protection, and government administration. Because of its over 180 million mobile connections and widespread usage of mobile financial services, the country has quickly embraced mobile-based solutions such as the 999 national emergency helpline, MyGov app, SMS alert systems, and Union Digital Centre (UDC) services (BTRC, 2023). The growth of M-governance in Bangladesh presents serious ethical issues that need to be carefully considered given its potential for transformation.

Concerns about privacy, data security, and citizen surveillance arise since mobile-based service delivery frequently functions in a permissive legislative framework and requires considerable data collection. Even with the ongoing Draft Data Protection Act, the lack of a comprehensive and enforced data protection framework exacerbates concerns about restricted user permission, unwanted access, and exploitation of personal data (Government of Bangladesh, 2022). Further contributing to the persistence of digital inequality include impoverished groups that have less access to smartphones or lower levels of digital literacy, which puts them at risk of being denied access to crucial mobile-based public services. The opaque operation of mobile government apps, where citizens are frequently ignorant of data usage regulations, also raises ethical concerns. But there is the lack of ethical studies concerning Mobile Financial Services (MFS).

These problems highlight the necessity for a thorough grasp of how M-governance may be implemented in ways that are not just technologically efficient but also ethically and socially responsible. As Bangladesh's digital infrastructure grows, addressing the ethical implications of mobile governance is essential to fostering public trust, protecting citizen rights, and guaranteeing equitable access to digital public services. In addition to providing insights into the laws, regulations, and governance practices required ensuring that technological advancement is consistent with moral values and democratic ideals; this paper examines the ethical conundrums surrounding Mobile Financial Services (MFS) in Bangladesh. In the context of mobile-based public services, the ethical issues include algorithmic fairness, privacy threats, data security flaws, transparency, and citizen autonomy.

By creating quantifiable ethical indicators and assessing the initiative's effectiveness from a citizen-centric standpoint, this study fills in these gaps. Policymakers, ICT designers, and public administrators who seek to establish responsible and citizen-centric digital governance systems can benefit from this study's fresh perspectives on the ethical aspects of m-governance. Lastly, by emphasizing how ethical safeguards might improve trust, equity, and democratic accountability in digital service delivery, the study broadens the conversation on m-governance.

2. Literature Review

Mobile governance (m-governance) refers to the use of mobile technologies to make government and public services more accessible and citizen-centric (OECD, 2011; Oghuma et al., 2012). M-government is defined as an eco-system and its implementation involving the utilization of all kinds of wireless and mobile technology, services, application and devices for the betterment of citizens, business and all governments units (Kushchu & Kuscu, 2004). These technologies include mobile networks, mobile devices (feature phones, smart phones, tablets) and mobile based technologies (SMS, Unstructured Supplementary Service Data (USSD), voice, location information and internet access). They can be used to transform the interactions between citizens and the government or the processes of government (Friederici et al., 2012) and to encourage more active citizen participation (OECD, 2011).

At a fundamental level, m-government aims at providing information and services to citizens, government employees and businesses through mobile devices. Use of mobile technologies can also transform service delivery in number of social sector domains, such as health and education. With the much higher penetration of mobile phones worldwide compared to access to the internet, mobile governance can make a wide range of public services available anytime anywhere to almost everyone (Kumar, 2014). M-governance is not a replacement for traditional e-governance, though it helps in overcoming its limitations, particularly those related to access to computers and internet and perhaps a higher level of literacy and skill set required on the part of the user to avail traditional e-governance services.

M-governance adds the dimension of mobility to e-governance consisting of user mobility, device mobility and service mobility (Roggenkamp, 2004). M-governance can be deployed to supplement or extend the existing traditional e-governance services by adding a new channel for service delivery (Kushchu & Kuscu, 2004), to expand the access to previously unserved or underserved stakeholders or to provide completely new services exploiting the unique features of mobile technologies such as location-based services (World Bank, 2012).

2.1. Data Governance, Privacy, and Ethics

Both individuals and organizations have a responsibility to uphold ethics. Data governance must incorporate data privacy and ethics, making them an integral part of the organization. To ensure the ethical use of data and to protect privacy, it is critical those data science policies, methods, organizations, and individuals all uphold moral behavior. The definition of decision-making authority and an accountability structure to guarantee proper conduct in the assessment, production, use, and management of data and analytics is known as data governance.

Data privacy focuses on the usage and regulation of personal data, such as implementing procedures to ensure that consumers' personal information is acquired, shared, and used appropriately (IAAP, 2023). The behavioral norms that encourage appropriate judgment and accountability while gathering, managing, or using data, with the goals of safeguarding civil rights, limiting dangers to persons and society, and maximizing the public good.

Data governance helps to establish how data can be utilized responsibly. This includes defining transparency in data gathering and storage, as well as ethical use. Data governance frameworks provide checks and balances to ensure that the principles and regulations for ethical data use are adhered to. Data ethics is at the forefront of the CEO agenda, as neglect can have serious consequences, such as reputational damage or firm closure. Companies must have a structured program in place to ensure that standards are upheld and evaluated on a regular basis in order to develop an effective policy. Figure 1 depicts the "what" and "how" of data governance (derived from Caserta, 2023; Lacity & Coon, 2024)

Operationalizing Data Governance
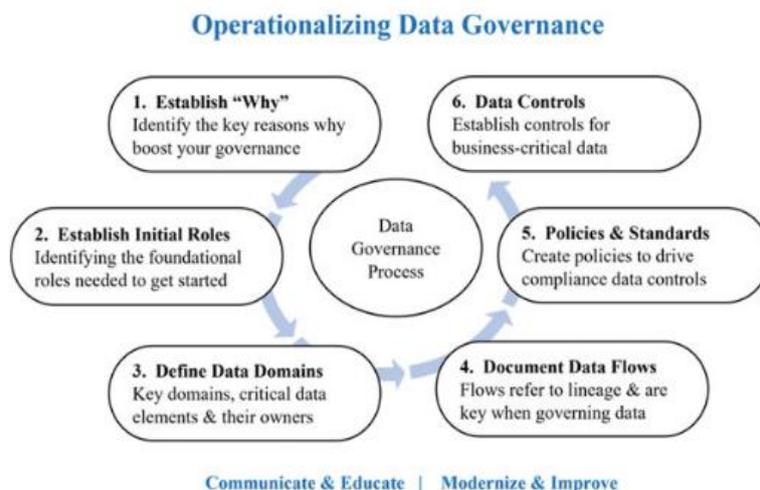
Figure. 1 Data governance

Failure to adhere to a data governance process or the entire absence of a data governance process can have severe effects for any company and the individuals involved, regardless of how they are involved. In this case, as shown in figure 1, Facebook failed to operationalize data governance in all areas, including determining why data governance was required (step 2), establishing initial roles (step 2), documenting data roles (step 3), documenting data flows (step 4), establishing policies and standards (step 5), and establishing data controls (step 6).

3. Methods

The study is descriptive and is based on a thorough examination of secondary data, which includes websites, databases, research papers, pertinent scientific articles and academic publications, as well as books and articles from credible mass media sources. This study likewise used the document analysis case study method with a credible newspaper source. Source triangulation increased reliability and data quality by verifying information across documents and points of view. Proper citation was kept.

4. Results and Discussion

4.1. M- Governance for Public Service Delivery

Because of recent advancements in mobile phone technology, mobile phones have become affordable to all segments of customers in developing countries, and the majority of rural people now rely solely on mobile phones as a means of communication, allowing citizens to access public services virtually anywhere covered by a mobile network. Citizens can now use mobile phones to access government services such as health, education, employment, police, taxation, agriculture, financial services, and weather as part of their daily life. The World Bank lists numerous factors that are driving demand for mobile services, including lower costs, wired network convergence, and faster data transfer rates (World Bank, 2007; Siddique, 2021).

Table 1. List of M-Governance Services in Bangladesh

Area	Service Name	Concerned Authority	Description of Services
Utility Services	Bill Pay	Titas Gas, DESCO, DPDC, PDB, and POLLI BIDYUT electricity consumers	Citizens can pay electricity and utility bills through their mobile phones via authorized "BillPay" centers.
	Passport and Driving License	Immigration Authority and BRTA	Citizen can get confirmation about passport and licensed delivery date through SMS
	Mobi Taka	Bangladesh Railway, Grameen phone, and content providers	Subscribers can purchase ticket by sending SMS and ticket prize will be adjusted from mobile balanced.
Financial Services	Mobile Banking	Out of 27 private banks, 19 banks have launched mobile banking services	- In April 2016 there were 35 million mobile banking A/C holders, Daily Transaction reached at 6069 million BDT. - Transfer money, receives salaries, utility bills, insurance premiums, loan installments, E-top-up for mobile phones, and e-ticketing could be possible. - Government has plan to start payment like agriculture subsidies, widow allowance, freedom fighters' allowances, pension payment will be transferred through mobile.
	Share Information	Dhaka Stock Exchange	Share updates and personal notifications.

Source: Siddique (2017)

M-governance is greatly accelerating the nation's economic progress. Innovative mobile-based public service delivery platforms could be used under M-Governance to provide public services to citizens who live in areas where current government services are inaccessible, who cannot access public services via the internet, or who simply prefer to use mobile devices.

4.2. Ethical Challenges in M-Governance: The Case of Bangladesh

Despite its potential, citizens are still unaware of the benefits of mobile communication for accessing public services in a simple way. M-Governance has ethical problems such as privacy concerns, data security hazards, digital inequity, algorithmic unfairness, transparency gaps, surveillance fears, and limited autonomy. Ethical m-Governance necessitates robust data protection legislation, inclusive design, accountability systems, and citizen-focused digital policy. Three true newspaper instances demonstrate the impact of these difficulties on users and the implications for m-governance in Bangladesh.

4.2.1. Case 1: bKash Fraud and User Security

Although bKash is the most well-known MFS in the country, there have been numerous fraud cases. In 2020, the Dhaka Tribune reported on a notable case in which authorities detained a group of nine people who were impersonating customer service representatives to defraud bKash users. These con artists took money from the victims' accounts after asking for PINs over the phone. The ethical issue here is mostly about consumer protection. Many bKash users lack significant digital literacy, leaving them vulnerable to hacker tactics. This raises

issues about how much training or knowledge consumers need, as well as the company's obligation to protect these users. The problem also involves fairness and inequality because the victims are often impoverished and illiterate. Although security standards are part of Bangladesh Bank's Mobile Financial Services Regulations, a number of fraud incidents indicate that greater awareness and more stringent security measures are needed (Bangladesh Bank, 2022). In general, the bKash case emphasizes how important it is to improve technology and education in order to protect vulnerable consumers.

4.2.2. Case 2: Rocket/DBBL Agent Misappropriation

The Rocket/DBBL system has raised another important ethical issue, particularly with regard to agent banking. Banks can provide services through local representatives thanks to agent banking. However, instances of agents misusing consumer funds have resulted from inadequate control. According to the state news outlet BSS, the Anti-Corruption Commission (ACC) began looking into a number of DBBL agent banking facilities in 2025 after customers reported that agents had collected deposits but had either disappeared or refused to return the money (BSS News, 2025). Prothom Alo first reported similar instances in 2023 (Prothom Alo, 2023).

The primary ethical issue here is ignorance of responsibility. When agents behave dishonestly, it can be challenging to decide who is responsible which are the bank, the regulator, or the agent. Customers are most affected; many of them have modest salaries or reside in rural areas. Banks have an ethical duty to protect the money of their customers by doing the necessary background checks and monitoring. When people fail, their life savings are lost. Regulations for agent selection and monitoring are in place at Bangladesh Bank; however, they are often not adequately enforced. Experts advise enhanced background checks, required security deposits from agents, automated monitoring systems, and quicker complaint resolution procedures to address these issues.

4.2.3. Case 3: Nagad Data Exposure and Privacy Concerns

Privacy is a major ethical concern in m-governance. Names, phone numbers, and other sensitive identifiers connected to Nagad accounts were found to be in circulation on services like Telegram, according to a March 2024 Daily Star article (Z. Islam, 2024). Bangladesh's CIRT (Computer Incident Response Team) warned Nagad and the National ID authority that sharing such data could lead to targeted fraud and identity theft. User rights and data protection provide ethical challenges. Financial institutions are required to safeguard the personal data that clients give them. Fraud and identity theft are examples of data breaches that can have serious repercussions for consumers. The government's response to such violations is made more difficult by Bangladesh's current lack of a comprehensive, fully enforced data privacy law. As the Nagad example shows, effective technology is essential for m-governance, but so are strong privacy regulations, prompt reporting of data breaches, and regular security audits.

4.2.4. Case 4: Fraudsters' Gang bKash Cheats Village Woman

A homemaker from a distant village in Chhatakupazila, Sunamganj, has fallen victim to bkash scam. The victim is in risk because scammers used her phone information and national identity card to register a bkash account and steal other people's money. On Wednesday (December 13), the Jawa Bazar Police Investigation Center of the upazila received a notice from the Mirpur Police Station in Dhaka to question about bkash transactions. The fraud complaint was filed on November 4, 2022, at 12 p.m. However, the victim was previously unaware. Yesterday, Wednesday, she discovered that the notice had arrived in her name. But

she has no idea how she was duped in Dhaka using her phone number. The victim stated, *"I have never been to Dhaka."* I live in the region, but I have no idea how this fraud was done. The victim's husband, a primary school teacher, told Deshrupantor that the bkash personal account was opened in his wife's name. *"But I'm not sure how the crooks exploited this number."* The investigating officer in the matter, Mirpur Police Station Sub-Inspector (SI) Md. Zulfikarul Islam, told Deshrupantor that the fraudsters exploited their photo NID to scam them. *"They have a bkash account with this name. They've been called in for questioning. They were called to find out whether they knew somebody like that"* (deshrupantor.com, 2023).

4.2.5. Case 5: The Digital Fraud Affected Conscious Profession

Anjuman Ara Mousumi (30) is a journalist by profession. She engages in mobile banking or agent banking because of necessity. She has an account with bKash, a BRAC Bank subsidiary. *"A few days ago, a person purporting to be a bKash official called Mosumi's phone and told her that her bKash account had been closed. A verification code is being sent to your phone number to activate your account."* Mosumi later revealed the code number. The purported bKash official then asked for the secret code and PIN number. Thus, 21,900 Taka were taken from Mousumi's bKash account by the scammer. Before Mousumi became aware of the situation, all of this occurred. The money was not found when the police were contacted later. Moushumi had forgotten Bikash's admonition, even though she worked in a conscientious field like journalism. She never once considered disclosing the PIN, security code, or secret code number to anyone.

According to the Cyber Crime Unit, the scammers visited bKash agent stores to obtain Mousumi's number. The scammer then committed fraud using the short code from mobile phone carriers' ESSD (Unstructured Supplementary Service Data) menus, which is an integral feature of mobile banking services. The fraudsters used the bKash app to seek Mousumi's number verification code, which was delivered to Mousumi's cell phone. Later, they called and pretended to be a bKash official, requesting the verification code. Using that verification code, the fraudsters accessed the app and asked to alter the PIN. They generated a new PIN number and removed all the money from Mousumi's account (Sarwar, 2019).

4.2.6. Case 6: A Grocery Shopkeeper Fell Victim to Fraud

Abdul Karim, a grocery store owner in Pallabi, was defrauded on February 12. Karim used mobile banking to send his parents in Pabna 10,000 taka. Additionally, his father had attested to the fact that he had received the funds. However, after some time, Karim's father got a message on his cell phone: 10,000 taka had been accidentally sent to his number. He gave the 10,000 taka back after learning this information. After realizing he had been duped, Abdul Karim gave the money his son had sent to the con artist.

Four people, Ariful Islam, Syed Hridoy, Imran Hossain, and Imtiaz Khan Anik were taken into custody when the Dhaka Metropolitan Detective Branch (North) police searched a home in Shajahanpur on February 22. The fraudsters had been defrauding consumers of BRAC Bank's mobile banking service bKash and Dutch Bangla Bank's mobile banking service Rocket for a long time. They defrauded over a hundred bKash and Rocket consumers. The fraudsters defrauded some people out of 10,000, 20,000, and even six lakh taka. According to detectives, fraudsters may now clone client numbers using technology. The crooks are using the 'Melacall Premium Voice' apps. They are also impersonating the voice of the person in charge of the bKash and Rocket helplines using this software. Customers are also being duped by this app (Sarwar, 2019).

Mobile financial services have considerably increased financial inclusion and payment efficiency, but they also present ongoing ethical challenges. Cyber scams, concerns about data security, suspicious digital lending behaviors, and the digital literacy gap are critical issues that must be addressed through ethical approaches to ensure that mobile finance benefits users in a secure and equitable manner.

4.3. Discussion

Ethical issues with Bangladesh's m-governance system are shown by all three scenarios: vulnerable users are most severely impacted. The impoverished and less literate are negatively impacted by fraud, agent misconduct, and information storage. Regulations are in place, but they are not well enforced. Bangladesh Bank has standards, but how they are applied is different. More robust legal and technical protections are needed. Better authentication, secure data storage, required breach reporting, and thorough agent monitoring are some examples of this. Raising public awareness is essential. People's inadequate awareness of digital hazards leads to numerous challenges. These occurrences show that in order to maintain user trust, MFS platforms must offer ethical, transparent, and secure service delivery in addition to promoting digital inclusivity.

Organize citizen digital literacy programs. It is critical to empower rural people with digital literacy. Initiating focused campaigns that tackle the unique requirements and difficulties of these communities guarantees that people have the skills required to interact with M-Government services. By bridging the gap between technology capabilities and user proficiency, digital literacy serves as a useful tool. To uphold strong security and privacy protocols. The effectiveness of M-Governance depends on fostering trust among rural users. Strict privacy and security measures are put in place to allay worries about data protection and reassure users that their information is secure. Strong security protocols are essential for building user trust and promoting broad adoption (Joshi & Oppliger, 2024).

The government should implement legislation to foster mobile content and raise public awareness. In accordance with the agreement between the mobile company and the Bangladeshi government, all SIMs should be sold through national identity cards. After the SIM is sold, online banking using any SIM without authorization from the national identity card manufacturing organization should be outlawed. All mobile banking using illicit SIMs should be shut down. After 24 hours, any money sent via mobile banking would be deemed withdrawable (deshrupantor.com, 2023).

To prevent Bikash fraud, it is crucial to adhere to a few basic guidelines: Never share your bKash PIN or One Time Password (OTP) with anyone, even if they identify themselves as a bKash official. Be wary of calls from unfamiliar numbers. Do not answer lottery or prize-related calls from unknown numbers. Bikash, like any other banking institution, would never call and ask for your PIN or OTP. Verify before transacting. Before sending money to a certain number, properly verify it. If necessary, contact the recipient for confirmation. Do not click on strange links. Avoid clicking on questionable links that come by email, SMS, or social media. Use the official channel of bKash/ Contact bKash via its official website, app, or hotline number (16247) for any information. Report fraud right away/ Call the fast development helpline at 16247 as soon as possible if you are a victim of fraud, and notify the authorities (Chakraborty, 2025).

5. Conclusion

This study looked into m-governance and ethical concerns in developing-country communities. The research attained its aims of identifying major adoption variables, measuring the impact on equality, and giving practical recommendations for increased efficacy by employing a comprehensive methodology that included a literature review and empirical analyses. The analysis of factors impacting M-Government adoption highlighted essential components such as security, technology trust, infrastructure, and accessibility. These insights equip policymakers and practitioners with a more sophisticated knowledge of e-governance. The examination of M-Governance's effects on equality emphasized how it promotes inclusivity, improves accessibility, and empowers residents who lack digital access. These results provide insightful viewpoints to current debates about using technology to improve society. In summary, this study highlights the revolutionary potential of M-Government and adds to the changing landscape of technology use in government.

5.1. Declaration of competing interest

The authors declare that they have no known financial or non-financial competing interests in any material discussed in this paper.

5.2. Funding information

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