



**TITLE - MOBILE FINANCIAL SERVICES DURING COVID 19 PANDEMIC A CASE
STUDY ON BKASH**

Subject: Project B: Project with knowledge transfer

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Table of Contents

| | |
|--|----|
| Abstract | 3 |
| Chapter 1 | 4 |
| 1.1 Introduction | 4 |
| 1.2 Description of the selected company | 5 |
| 1.3 Problem area..... | 6 |
| 1.4 Problem Formulation and research questions | 7 |
| Chapter 2..... | 8 |
| 2.1 Literature Review | 8 |
| 2.2 Gaps in literature | 9 |
| Chapter 3 | 11 |
| Theoretical framework | 11 |
| 3.1.1 Complexity Leadership..... | 11 |
| 3.1.2 The main characteristics and the concept of complexity leadership..... | 11 |
| 3.2 Contemporary discussions of corporate social responsibility (CSR) | 14 |
| Chapter 4..... | 15 |
| 4.1 Philosophy of science..... | 15 |
| 4.2 Research approach..... | 15 |
| 4.3 Research strategy..... | 15 |
| 4.4 Methodological choice | 16 |
| 4.5 Data Type | 16 |
| 4.6 Data collection guide..... | 17 |
| 4.7 Interview guide..... | 17 |
| 4.8 Interview process..... | 17 |
| 4.9 Ethical considerations | 18 |
| 4.10 Data analysis | 18 |
| 4.11 Limitations..... | 18 |
| Chapter 5 | 19 |
| 5.1 Analysis and discussion..... | 19 |
| 5.2 Empirical Data..... | 20 |
| Chapter 6..... | 22 |

| | |
|--|----|
| 6.1 Findings..... | 22 |
| 6.2 Conclusion..... | 22 |
| 6.4 Practical implications | 24 |
| References | 25 |
| Appendix..... | 28 |
| Questionnaire For bkash Employee | 28 |
| Survey Questionnaire | 34 |

Abstract

Covid 19 has a significant global impact on the business sector including financial services. Physical interaction was limited. mobile financial service has become one of the essential elements for enabling secure and practical business transactions. In this case study, the COVID-19 epidemic is examined through the lens of bKash, a significant mobile financial service provider in Bangladesh. The study examines how customers used bKash services before and throughout the epidemic, and how the business responded to the difficulties the crisis presented. It looks on how user behavior, transaction volume, and the kinds of services accessed via the bKash platform have changed. it looks at the steps taken by bKash to guarantee the security and safety of transactions and consumer data. Additionally, it takes count on the initiative taken by Bkash to ensure the safety and security of transactions and customers privacy during the era of epidemic.

The study also explores how the epidemic has affected the wider financial ecosystem and how bKash has aided the economy in these trying times. It evaluates the advantages and drawbacks of employing mobile financial services, including the potential to expand financial inclusion, decrease dependency on cash, and offer basic financial services to disadvantaged people. The study uses a mixed-methods approach, integrating qualitative interviews and surveys with bKash employees, their users, and stakeholders with quantitative analysis of transaction data. To acquire a thorough knowledge of the consequences of the pandemic on mobile financial services, it highlights the experiences and viewpoints of both clients and bKash agents.

The findings of this case study contribute to the body of knowledge already known about the function of mobile financial services in times of crisis and offer insight on the unique setting of bKash in Bangladesh. Policymakers, regulators, and business stakeholders can use the study's findings to build measures to boost mobile financial services and increase resilience to crisis situations in the future.

Chapter 1

1.1 Introduction

The COVID-19 epidemic has had a significant impact on many aspects of society, including how money is transacted. The demand for contactless and digital banking services increased dramatically as people faced social isolation and travel restrictions around the globe. Mobile financial services have arisen as a lifeline in this situation, giving people and businesses a safe and practical means to handle their finances without being physically present.

While the banking industry has been particularly hard hit by the global COVID-19 outbreak. Demand for online banking has risen as more individuals remain in and avoid leaving the house (Murshid et al., 2020). bKash is the market leader in mobile money transfer services in Bangladesh. This case study looks at how bKash reacted to the epidemic by increasing its offerings to fulfill customers' demands.

In 2011, bKash was introduced as a partnership between BRAC Bank and Money in Motion. Customers may use their mobile devices to make financial transactions such as money transfers, bill payments, and purchases. Over 50 million people in Bangladesh were using Bkash as of September 2021 (Pranta, 2021). During the epidemic, many individuals have been unable to leave their houses to use regular banking services, making Bkash an important service (Mujeri et al., 2022). Bkash has launched new features and partnered with new companies to accommodate the increased demand for digital financial services during the epidemic. An important new addition is the "Add Money" button, which lets users fund their Bkash accounts using credit cards like Visa and Mastercard as well as other online payment options. Because of this, people may now deposit funds into their Bkash accounts without leaving the comfort of their own homes. To further facilitate online shopping for its users, Bkash has formed partnerships with other e-commerce sites and shipping companies. For instance, bKash has formed partnerships with food delivery businesses such as Foodpanda and Uber Eats so that customers may use bKash to pay for their purchases (Pranta, 2021). bKash has also worked with e-commerce platforms like Dara and Evaly to provide mobile payments for a plethora of items. To assist its consumers in handling their finances during the epidemic, bKash has introduced a number of innovative options. For instance, bKash's "Save Money" function enables users to deposit funds into a savings account that accrues interest (Islam, M. S., & Rahman, M. A. 2021). Customers may now schedule and pay for doctor's visits directly from their mobile devices with Bkash's new "Doctor's Appointment" service. bKash has helped get folks the money they need throughout the epidemic. bKash has increased the convenience of remote access to banking services by diversifying its offerings and forming new partnerships. bKash will play an important role in satisfying the growing demand for digital financial services as the pandemic's effects spread over the world. This case study focuses on bKash, a leading mobile financial service provider in a specific region, and explores its introduction and impact during the COVID-19 pandemic. bKash's mobile financial services have played a

significant role in facilitating financial transactions, promoting financial inclusion, and ensuring the safety of individuals during this challenging time.

In this case study the authors have emphasized the key features and strategies employed by bKash to introduce and expand its mobile financial services during the epidemic situation because of Covid 19. It aims to shed light on the implications, challenges, and opportunities that arose because of this introduction. It will also examine how social, economic, and technological aspects of the COVID-19 pandemic affected how successfully bKash's mobile finance services were adopted. Through this case study, we may learn more about how bKash used its knowledge, assets, and technology to meet the changing requirements of people and organizations during the epidemic. It offers a chance to comprehend the financial landscape's transformation as a result of mobile financial services as well as any potential long-term effects on the sector.

By examining the case study of bKash's mobile financial services during the COVID-19 pandemic, we may learn important lessons and best practices that can be used in related contexts and direct future strategies for mobile financial service providers. The results of this case study help to further knowledge of how digital finance functions during crises and the potential of mobile financial services to promote financial inclusion, adaptability, and creativity in the face of unimaginable obstacles.

1.2 Description of the selected company

BKash is a well-known mobile banking service provider with headquarters in Bangladesh. BKash has over 40 million registered users. One of the biggest commercial banks in the nation, BRAC Bank, a subsidiary of it, started it in 2011 (Chen and Rasmussen, 2014). With bKash, customers may simply and securely access a variety of digital financial services, even those that don't require a traditional bank account. Mobile money transfers, which allow consumers to send and receive money instantaneously using their mobile phones, are the company's main product. An authorized agent, such as a bKash center or a partner bank, can let users make deposits into their bKash accounts at many different places across the nation (Alam, Gupta and Zameni, 2019). After the funds have been deposited, users can carry out several operations, including sending cash to other bKash users. In Bangladesh, particularly among the unbanked and underbanked people, bKash has become significantly more well-liked and widely used. It has been significant in encouraging financial inclusion and bridging the gap between regular banking services and people with insufficient access to official financial institutions. Access to the service is provided by a straightforward mobile application, a USSD (Unstructured Supplementary Service Data) code for feature phones, and a large network of agents dispersed around the nation. Over time, bKash has also added new functions and collaborations, such as merchant payments, remittance services, integration with e-commerce platforms, utility bill payment services, and integration with merchant accounts (Alam, Gupta and Zameni, 2019). This has increased its functionality and reach. Innovative mobile banking services and bKash's contributions to financial inclusion have received both national and international recognition.

1.3 Problem area

The financial services industry has been severely disrupted globally by the COVID-19 outbreak. In this environment, mobile financial services (MFS) have become an essential tool for facilitating safe and practical transactions, particularly when there is a lack of opportunity for face-to-face engagement (Mujeri et al., 2022). To fully utilize the benefits of MFS during the pandemic and successfully manage the issues that occur, it is essential to develop a thorough understanding of their function and effectiveness.

1.4 Problem Formulation and research questions

The goal of this case study is to examine how Bangladesh's top mobile banking service provider, bkaash, responded to the COVID-19 outbreak. Specifically, the study aims to address the following research questions:

- How did the utilization patterns and trends of bkaash services change before and during the COVID-19 pandemic?
- What steps did bkaash take to guarantee the privacy and security of client data and transaction data during the pandemic?
- What were the pandemic's consequences on Bangladesh's broader financial ecology, and how did bkaash help to sustain the country's economy at this time?
- In terms of financial inclusion and decreased dependency, what were the advantages and drawbacks of using mobile financial services during the pandemic?
- What were the benefits and challenges associated with using mobile financial services during the pandemic, particularly in terms of financial inclusion and reduced reliance on cash?
- How did bkaash adapt its services and operations to meet the changing needs and demands of its customers during the pandemic?
- What are the experiences and perspectives of bkaash customers and agents regarding the use of mobile financial services during the COVID-19 crisis?

With a focus on bkaash in the context of the COVID-19 epidemic, the case study seeks to answer these research questions to shed light on the function of mobile financial services during emergencies. The research will help us better understand the benefits and difficulties of MFS and will help us develop methods for bolstering mobile financial services in crisis scenarios in the future.

Chapter 2

2.1 Literature Review

A literature review is a critical and methodical analysis of previously published works and scholarly study on a particular subject or research question (Hempel, 2019). The goal of a literature review is to develop the theoretical and conceptual framework for a research project or study while also providing a thorough understanding of the current state of knowledge on a particular topic (Purssell and McCrae, 2020). Mobile financial services have experienced a upsurge during the Covid-19 pandemic all over the world and Bangladesh is no exception in this case. A number of studies have been conducted to analyze the impact of covid-19 pandemic on the digital financial services platform.

There was a dramatic spike in the number of people using mobile banking throughout the crisis. Mobile financial services provided an easy and secure way for people to perform financial transactions despite reduced opportunities for social engagement and reduced physical mobility. The results showed a significant change towards contactless transactions such mobile money transfers, bill payments, and use of digital wallets (Yan et al., 2023). This change reflected a trend towards conducting business over the Internet and without physically touching the other person as a means of reducing the spread of viruses. Mobile financial services like bkaash have attracted customers who previously relied primarily on traditional banking services due to their convenience and security (Yan et al., 2023). This increased use is largely attributable to the accessibility and simplicity of mobile financial services, which have helped close the gap between the unbanked and underbanked people and traditional financial institutions.

Bkaash and similar services take the security of their customers' personal data very seriously. Secure data transfer protocols, two-factor authentication, and encryption methods were all part of these precautions, as stated by Yesmin, Paul, and Mohshin Uddin (2019). In addition, bkaash has taken steps to strengthen user education and awareness programmes to spread safe shopping habits and reduce fraud and data breach threats. To gain users' trust and confidence in the middle of the pandemic's difficult conditions, bkaash prioritised data privacy and security (Yesmin, Paul, & Mohshin Uddin, 2019).

Khatun, Mitra and Sarker conducted a study to analyze the usefulness of MFSs to enhance the financial access of people. In their study they found that MFSs significantly increased the financial services accessibility among the unbanked people during the pandemic. In line with this view, a study conducted by Bangladesh Bank focuses on the number of customers registered for MFS during lockdown and they showed some statistics that In January 2020 the number of registered MFS client was 80.92 million which has been increased to 92.57 million in July 2020 and 99.34 million in December 2020. However, with the rise of MFS business during the pandemic many banks have extended their operation with the MFS by integrating with the add money option of MFSs. 22 Banks introduced this new service during that period. Another study conducted by

Hossain (2020) emphasizes the financial performance of the MFS industry during the Covid-19 outbreak. In his paper, he stated, the monthly transaction has been rose by around 40,000 crores in November 2020 compared to the previous year November 2019. He also analyzed the other type of transactions like utility bill payments, merchant payments, and all types of payments has shown a significant increase from the pre-pandemic era by a huge margin. Focusing on the MFS company's financial performance Zeya (2022) conducted research and includes the performance of the top 3 MFS companies of Bangladesh. According to his study, Bkash the leading MFS company of Bangladesh added 1 crore new customers during The pandemic while its daily transaction was around Tk. 1000 crore. Nagad another MFS company in Bangladesh enhanced its client base by 70 lakh during the pandemic and their daily transaction average was around 200 crore. Rocket, the largest MFS company in Bangladesh added over 30 lakh new clients while their daily transaction average was 410 crore Taka.

2.2 Gaps in literature

There are some gaps in the existing research on mobile financial services during the COVID-19 pandemic, notably in the context of bkash, which beg for more investigation. These gaps consist of.

Limited Case Studies: In-depth case studies concentrating on particular mobile banking service providers, like bkash, and their experiences during the epidemic are scarce. The majority of current studies give a general overview of mobile financial services rather than getting into the specifics of various providers and their tactics.

User Perspectives: While some studies look at transaction data and service usage trends, there aren't many studies that look at the perspectives and experiences of bkash users during the pandemic. Understanding how users of mobile financial services feel about and use them during emergencies might provide important insights into their efficacy and potential areas for improvement.

Security and Privacy Considerations: The precautions taken by mobile financial service providers like bkash to protect the security and privacy of transactions and customer information during the pandemic are not fully explored in the literature. For mobile financial services to be more trusted, it is essential to evaluate these measures' performance and find any flaws.

Socioeconomic Impact: The socioeconomic impact of mobile financial services during the pandemic has not been thoroughly examined in the literature, particularly in terms of promoting financial inclusion and assisting vulnerable groups. Understanding the extent to which underprivileged groups' financial requirements have been met by mobile banking services like bkash will help us comprehend their broader societal impact.

Policy and Regulatory Frameworks: In times of crisis like the COVID-19 pandemic, there is a dearth of literature focusing on the policy and regulatory elements of mobile financial services.

Insights for effective policy formation can be gained by examining the difficulties and opportunities faced by policymakers and regulators in promoting and regulating mobile financial services during times of crisis.

By addressing these knowledge gaps, we can gain a better understanding of the function and efficiency of mobile financial services, particularly in the context of bKash, during the COVID-19 pandemic. It will aid in the design of policies, the making of strategic decisions, and the creation of financially robust institutions that can withstand future crises.

Chapter 3

Theoretical framework

3.1.1 Complexity Leadership

The complexity leadership theory (CLT) was chosen as the study's main theoretical framework because it offers a framework that goes beyond conventional, systemic leadership and organizational theories. Instead of assuming that leadership results exclusively from an individual's actions, CLT questions bureaucratic preconceptions. Instead, it recognizes that leadership is a complicated phenomenon involving several people and elements (Uhl-Bien et al, 2007:314). The organizational theory paradigms that are currently in place prioritize stability and work to reduce uncertainty through organized procedures. However, these paradigms might not be sufficient in international and fiercely competitive situations. Although it is acknowledged that new strategies are required, the precise alternatives have not yet been established (Ilinitich et al, 1996:217). Leadership in complex systems is dynamic, and this is something that complexity theory highlights. According to bkash's research conducted during the epidemic, mobile financing was experiencing rapid change because of shifting client demands, regulatory mandates, and market forces. The complexity leadership theory can help businesses like Bkash overcome the difficulties of providing mobile financial services amid the COVID-19 pandemic. Complexity leadership acknowledges that businesses work in dynamic, complicated situations where more conventional leadership techniques may not be effective. However, The purpose of complexity leadership theory is to provide a framework for understanding the dynamics of organizations in the "knowledge era" and to explain how leaders might interact in order to affect these dynamics in a desirable way. This purpose gives complexity leadership theory its significance.

Complexity is transforming entire industries, with many organizations ill-prepared to respond to these threats. Leaders, caught in the demands of the moment, drive efficiency and results in the core business, while at the same time, new competitors are emerging that can threaten traditional core businesses (Arena, 2017). bkash's leaders had to learn to live with ambiguity, embrace complexity, and encourage stakeholder cooperation to overcome the obstacles they faced. It's possible that they gave attention to developing systems that can withstand shocks, promoting exploration, and encouraging flexible reactions to new problems.

3.1.2 The main characteristics and the concept of complexity leadership

According to Uhl-Bien et al., leadership is not a single action but rather an interactive process that emerges from the intricate interactions of heterogeneous entities in networks. This dynamic connection produces novel behavioural patterns and operational paradigms, inspiring a widespread desire for action and change. The participating agents produce adaptive outcomes through feedback networks, such as knowledge diffusion, learning, and innovation" (Uhl-Bien et al, 2007:299).

Hazy et al. claim that leadership can appear in any organizational context, suggesting that any interaction that takes place between people within an organization has the capacity to give rise to leadership activities. As a result, the relationship structure amongst the involved agents must not be built with overly straightforward, rationalized structures that undervalue the complexity of the organizational context if optimal performance is to be achieved. The goal of complexity leadership theory is to help complex organizations become more adaptable by utilizing the dynamics of internal complex adaptive systems (CAS) developed by interacting agents. By utilizing the potential of complex adaptive system dynamics within hierarchical coordinating contexts, it provides a framework for comprehending and analyzing leadership methods and behaviors that foster both organizational and individual success. The characteristics of complexity leadership are below.

Administrative Leadership

The activities of planning, organising, and controlling are the core of administrative leadership. Its main objective is to bring about stability and order within the company, which will increase productivity and efficiency. Administrative leadership is seen when people or organisations acting in formal managerial roles take steps to organise, establish, and coordinate operations in a complex adaptive system (CAS). Additionally, they organise work and distribute resources in a way that supports the goals of the organisation. This leadership type utilizes the hierarchical and bureaucratic functions of the organization (Uhl-Bien et al, 2007:305). In order to ensure order, stability, and efficacy in managing bKash's operations and resources during the COVID-19 pandemic, the administrative leadership approach for mobile financial services would require leveraging hierarchical and bureaucratic capabilities. In order to ensure efficient resource allocation, task coordination, and control mechanism implementation during the pandemic, this strategy would put a strong emphasis on planning and organising operations. Establishing and sustaining operational frameworks, regulatory compliance, risk management, and efficient coordination with stakeholders like users, retailers, banks, and government agencies would be given priority. The goal of the administrative leadership strategy would be to make sure that bKash operates efficiently and keeps giving its customers dependable and secure financial services throughout these trying times. Mr. Arko Jyoti Roy, Business planning, strategy and business development at bKash Bangladesh, quoted "During the epidemic situation most of the administrative leaders at bKash prioritized maintaining operation structure, regulatory compliance, risk management and effect coordination with the stakeholders such as users, agents, business partners, bank and governing authorities. Their prime target was to ensure that bKash function effectively also maintaining the safety and protocol and continue to provide reliable and uninterrupted service to their users amidst the challenges posed by the pandemic."

Additionally, administrative leadership has played a key role in to implemented necessary changes and ensuring business continuity during these uncertain periods.

Enabling leadership

In the complex adaptive system (CAS), enabling leadership aims to establish the conditions that enable people to engage in innovative problem-solving, adaptation, and continual learning. It fills the chasm between administrative leadership's representation of bureaucratic functions and adaptive leadership's representation of emerging functions. Establishing organizational conditions that promote effective adaptive leadership and facilitating the transfer of knowledge and creativity from the adaptive structures of the organization into the administrative structures are the two main functions of enabling leadership (Uhl-Bien et al, 2007:309). In the context of mobile financial services during the COVID-19 epidemic, notably in the case study of bKash, the concept of enabling leadership is pertinent. The goal of enabling leadership is to create an environment that empowers staff members, encourages teamwork, and supports their personal and professional development. In the case study of bKash, here is how enabling leadership relates to mobile banking services:

Employers must be given the freedom to take charge of their work and make decisions to be enabled to lead. By giving its staff the tools, knowledge, and authority, they need to modify mobile banking services in response to shifting consumer demands and market circumstances during the epidemic, bKash can empower its workers. This empowerment encourages a sense of ownership and accountability, which produces more creative and adaptable solutions.

Adaptive leadership

According to Heifetz and Laurie (2001) the term adaptive leadership emphasizes identifying adaptive challenges within the complex adaptive system by catalyzing emergent change activities. Adaptive challenges. An "adaptive challenge" is an issue that calls for the application of unique solutions, the creation of fresh behavioural patterns, and the learning of new knowledge. Uhl-Bien et al (2007:305) argue that, adaptive leadership is an informal and emergent dynamic that arises among interacting agents. The term "emergent" holds particular significance in this context because adaptive challenges cannot be resolved solely by relying on existing knowledge and procedures. They necessitate the emergence of new and creative actions through adaptive leadership. The COVID-19 epidemic and its effects on mobile financial services make this idea of emergence more pertinent. It acknowledges that addressing adaptive difficulties cannot exclusively rely on the body of already available information and practises. Instead, it calls for adaptive leadership to help new and innovative acts emerge. In order to overcome the particular difficulties COVID-19 presents, bKash's adaptive leadership in the face of the pandemic would entail catalysing emergent change initiatives. This can entail supporting fresh learning, fostering creative strategies, and fostering new behavioural patterns inside the organisation. In these trying circumstances, adaptive leadership would make it possible for bKash to modify its offerings, create fresh plans, and successfully address changing customer wants and demands.

3.2 Contemporary discussions of corporate social responsibility (CSR)

CSR, or corporate social responsibility, acknowledges that firms have obligations beyond those that are imposed by law and the marketplace. It entails an ongoing dedication on the part of companies to promote the welfare of workers, their families, local communities, and society at large while also advancing economic progress (Blowfield, 2019). Leading mobile financial services provider bKash has launched several initiatives to help the public amid the COVID-19 outbreak. During the epidemic situation, bKash donated 300 ventilators and 300,000 emergency medical toolkits to the government in terms of corporate social responsibility. Also they were remarkably contributed with the installation of an oxygen plant at the BIHS General Hospital and the delivery of 30 ventilators to hospitals in Dhaka to support the care of COVID-19 patients. They took initiative such as offering discounts on consumer transactions totaling more than Tk 22 crore to provide comfort and respite during the economic shutdown. They have also donated Bidyanondo Foundation to support the construction of a hospital in Chattogram and donating food to the Sena Kalyan Sangstha, which distributes food to thousands of impoverished households. assisting in the prompt delivery of the prime minister's financial assistance and stipends to students. bKash worked with regional banks to enable inbound remittances during the crisis, allowing expatriate workers to safely remit money to their family. They also easing utility bill payments and enabling digital currency transactions, encouraging cashless transactions so that people can maintain social distancing. Finally, working with banks to make it possible for customers to quickly top off their bKash accounts anytime, anywhere, increasing financial accessibility and ease (Star, 2021).

Chapter 4

4.1 Philosophy of science

The study is based on the interpretivist approach, which is the bedrock of scientific epistemology. According to interpretivists, people's perceptions of the world are heavily influenced by their own unique perspectives and life experiences. The goal is to look at how people interpret and make sense of their experiences in relation to their social and cultural backgrounds (Edson, Henning, & Sankaran, 2016). Since an interpretivist approach allows for a thorough investigation of the subjective experiences encountered by bKash consumers and agents, it is regarded appropriate in the context of mobile financial services during the COVID-19 epidemic. This method acknowledges that cultural, social, and individual aspects all play a role in shaping how people view their interactions with mobile financial services. The study takes an interpretivist stance in an effort to learn more about the meanings, challenges, and successes of using mobile financial services during the pandemic.

4.2 Research approach

The use of a mixed-methods strategy is particularly appropriate for the topic at hand since it permits an in-depth investigation of the perspectives and experiences of both bKash consumers and agents throughout the pandemic. This study combines qualitative and quantitative data for a more in-depth look at personal stories and experiences through qualitative methods, and a better grasp of larger trends and patterns through quantitative analysis (Creswell & Plano Clark, 2017).

The qualitative component of the research approach consists of in-depth interviews and surveys of bKash customers and agents. Using these qualitative methods, we may look into how individuals' lived experiences during the epidemic influenced their perceptions of and engagement with mobile money services. Sarsfield and David Garson (2017) found that conducting in-depth interviews with consumers who have utilized mobile financial services provided valuable insights into how these services have impacted their daily routines. The quantitative portion of the research approach involves the analysis of numerical data collected via polls. Data on bKash users' demographics, usage patterns, contentment, and other quantitative characteristics will be gathered through surveys during the pandemic (Creswell & Plano Clark, 2017). By analyzing this quantitative data, trends, correlations, and statistical links can be identified, allowing for a better understanding of the general patterns and movements in customer behavior.

4.3 Research strategy

The research project made use of a case study strategy. Case studies allow for in-depth examination of a phenomenon in its native setting (Yin, 2019). The case study approach is well suited to this research problem because it allows for a comprehensive analysis of bKash's operations, strategies, and effects throughout the outbreak. Yin (2019) outlines the several ways in which bKash has

contributed to Bangladesh's economic growth and financial inclusion over time. bKash's function within the monetary system as a whole can be dissected with the case study method. The services provided by bKash allow for research into such previously unexplored topics as financial inclusion, economic activity, and resilience in the face of the epidemic.

4.4 Methodological choice

This methodology integrates quantitative and qualitative techniques. The method's usefulness originates from the fact that it facilitates a more in-depth comprehension of how the COVID-19 pandemic impacted bKash consumers and agents. This study uses both qualitative and quantitative methods to investigate why people used mobile banking services during the crisis and what happened as a result (Hesse-Biber, 2016).

4.5 Data Type

Both primary and secondary data has been used in this study. The word primary data describes facts and figures that have been gathered from the very beginning (Lobe, Morgan and Hoffman, 2020). Surveys, interviews, observations, and even direct participation in experiments with the original source are all viable options for gathering information. Primary data sources allow researchers to tailor their investigations by drawing on the experiences of real people (Lobe, Morgan and Hoffman, 2020). Interviews with bKash customers and agents provided the bulk of the information used to write this case study on bKash and mobile financial services during the COVID-19 outbreak. Individuals' thoughts and feelings about using bKash during the epidemic can be uncovered through the application of interview approaches, yielding significant insights. Furthermore, this method allows for a thorough comprehension of their background and typical habits. The case study's primary data has been carefully chosen and prepared to meet the goals and guide the research questions. However, ensuring the quality and trustworthiness of the data acquired calls for an initial phase of careful planning, detailed design, and efficient implementation of data collection procedures.

In this context, the word secondary data refers to information that has already been gathered but was not gathered for the purpose of this study (Seidman, 2010). For this study, we drew information from a wide variety of publicly available and privately held sources, such as government departments, universities, corporations, and private archives. The secondary data collected by governments, institutions, and corporations is used for a wide variety of purposes, including statistics, market research, and policy formation (Seidman, 2010). The bKash research could get further insight into the mobile financial services market, current trends, regulatory frameworks, and economic indicators through the use of secondary data analysis. Information about mobile banking and financial inclusion can be gleaned from a variety of sources, including industry publications, customer surveys, and academic studies. The researchers in this project had been considerably benefit from using secondary data because it lightens their load, provides them with a plethora of information, and allows for the comparison and evaluation of multiple datasets at once.

4.6 Data collection guide

Data collection guidelines outlined the procedures, instruments, and methodologies for studying mobile financial services during the COVID-19 outbreak, with an emphasis on bkaash. It detailed the procedures that had to be followed to ensure that data from participants was gathered in a uniform and reliable fashion (Lobe, Morgan and Hoffman, 2020). People who had used bkaash throughout the pandemic, whether as customers or as agents, were given preference. Users' ages, genders, locations, and how frequently they utilize the bkaash service were only some of the variables considered.

Questionnaires and interviews were used to compile this report on the prevalence of bkaash and similar mobile money transfer services across the COVID-19 pandemic. To ensure consistent data collection from participants, a questionnaire was developed. It was a set of questions designed to dig into various aspects of the study problem. The study's objectives informed the development of in-depth questionnaires about the participants' experiences with bkaash during the pandemic. Selected participants received the questionnaire either in person, via online platforms, or by email, depending on their preferred method of participation. The questionnaire was explained in great detail to the participants, including where to find any additional information or clarifications that could be required (Corti et al., 2014). There was plenty of time for everyone to complete the survey, and follow-up emails were sent as needed. The questionnaire was reviewed to ensure that its questions were presented in a sensible order and that its format was user-friendly.

4.7 Interview guide

In-depth discussions with bkaash customers and agents regarding their experiences with mobile banking during the COVID-19 outbreak were possible because of the interview guide. Participants were asked to respond to a series of broad inquiries in the guidebook regarding their use of bkaash, their spending habits during the crisis, the challenges they faced, and the benefits they perceived in utilizing mobile financial services. The interview began with a kind greeting that was meant to put participants at ease and prompt them to share their thoughts and feelings openly. Participants were asked about their use of bkaash during the epidemic in a survey that was widely disseminated. The interviews looked deeper into the challenges people had while attempting to use traditional banking during the crisis and how bkaash was able to help. Users' opinions on bkaash's security and privacy, as well as their experiences interacting with the service's customer support team, were among the topics probed. In order to improve mobile banking services and address current issues, participants were requested to offer suggestions.

4.8 Interview process

Purposive sampling was employed to choose a subset of bkaash customers and agents who had used mobile banking services during the COVID-19 pandemic for in-depth interviews. Finding people to take part in the study required both online advertising and word-of-mouth referrals. The timetable was established with the convenience and availability of the participants in mind. Interviewees were given a comfortable setting, treated with courtesy, and given the time to answer questions. Participants were able to reflect on their interactions with bkaash during the pandemic

and share their insights through in-depth interviews. Rich qualitative data collected through interviews complimented the quantitative findings from other data collection approaches, providing a fuller picture of the experiences, perspectives, and recommendations of bkash users and agents throughout the COVID-19 pandemic (Seidman, 2010).

4.9 Ethical considerations

To protect the participants' rights, privacy, and confidentiality, the research team conformed to all applicable regulations and guidelines (Mustajoki and Mustajoki, 2017). Everyone who took part in the study gave their consent voluntarily and knew they could stop at any time without any negative consequences. To ensure the confidentiality of the respondents, all data was collected and evaluated in a blinded method. The researchers also made certain arrangements for the participants' well-being and convenience. Money was not brought up, as that could be seen as unpleasant, and participants were given the option to skip or refuse answering any questions they deemed uncomfortable. The collected data was kept confidential thanks to its secure storage and access by only authorized members of the research team.

4.10 Data analysis

In order to draw conclusions and draw insights from the obtained data, it was subjected to rigorous analysis. Transcripts, codes, and thematic analysis of open-ended survey responses and in-depth interviews were conducted. The data was analyzed by looking for trends, topics, and categories to learn more about the experiences and viewpoints of the participants (Winkle-Wagner and Lee-Johnson, 2018). Statistical methods were used to examine the quantitative data gathered from the surveys' closed-ended responses. In order to assure the reliability and validity of their findings, the research team used an iterative and reflective strategy throughout the data processing process.

4.11 Limitations

Despite the careful methodology, there were still shortcomings with this study that can't be ignored. The initial investigation concentrated on bkash, a mobile financial services provider based in Bangladesh. It is possible that the findings do not generalize to all regions or all mobile financial service providers due to differences in cultural background and service offerings. Second, participants were asked to relate their own experiences, which opens the door to recall bias and social desirability bias. Participants may have given researchers the responses they were hoping to hear, thereby compromising the data's credibility. The study also only looked at a small portion of the COVID-19 dataset, so the findings may not be indicative of more far-reaching trends or shifts in consumer preferences. Due to the dynamic nature of the epidemic and other factors, participants' experiences and perspectives may have varied.

Chapter 5

5.1 Analysis and discussion

Mobile banking usage increased dramatically during the global financial crisis, and this trend was also observed in Bangladesh. Mobile banking services, such as bkaash, gave people a safe and convenient way to make transactions in an era when opportunities for social engagement and physical mobility were dwindling.

The substantial surge in the adoption of mobile banking services that enabled contactless transactions is one major lesson from these studies. Mobile payment systems, including bill pay and digital wallets, skyrocketed in popularity. This shift is typical of a wider trend away from in-person gatherings in favor of online communication and collaboration in an effort to reduce the spread of contagious diseases. These findings highlight the importance of mobile financial services in enabling individuals to maintain financial stability while living in social isolation. Customers who were previously only using conventional banking services are increasingly turning to mobile payment systems like bkaash (Yan et al., 2023). Due to the accessibility and simplicity of these options, previously unbanked and underbanked individuals were able to establish banking relationships with traditional institutions. Mobile financial services, such as bkaash, gave consumers who lacked access to or had trouble navigating conventional banking services an easy and secure way to do business on the go (Aziz and Naima, 2021).

Many MFS providers, bkaash included, have taken extra precautions to ensure the safety of their clients' data in response to growing security and privacy concerns. To protect the privacy and security of users' information, we use encryption, two-factor authentication, and secure data transfer protocols (Yesmin, Paul, & Mohshin Uddin, 2019). In order to encourage responsible consumer behaviour and lessen the chances of fraud and data breaches, bkaash has also improved its user education and awareness campaigns. Taking these precautions is essential for gaining customers' trust and confidence, which is especially important while the epidemic creates difficult conditions. During the pandemic, the effects of MFS on access to financial services have been the subject of multiple research projects. The results repeatedly show that mobile financial services play an important role in making banking options available to the unbanked (Khatun et al., 2021). The expanding usage and acceptance of MFS is reflected in a sharp rise in the number of clients registered during the lockdown period. Companies in the MFS sector saw expansion, although traditional financial institutions also benefited from MFS platform integration. Those who had not previously had access to financial services were able to do so because of the proliferation of mobile financial services.

Moreover, research on the MFS industry's financial health during the epidemic reveals encouraging numbers. Compared to the time before the pandemic, the volume of monthly

transactions and the variety of payments processed increased significantly. With an average daily transaction volume of Tk. 1000 crore, bkaash, the largest MFS provider in Bangladesh, gained many new customers during the epidemic (Afroze and Rista, 2022). The number of customers and the number of transactions processed by other businesses saw similar increases, including Nagad and Rocket.

Users' perspectives on using bkaash's mobile financial services throughout the epidemic are shown in the survey replies. Most customers appreciated the efficiency of the services and would use them again. However, many users ran into problems while accessing the services, mostly due to network challenges, insufficient user training, a shortage of available mobile devices, and security worries. These difficulties underline the need to fill in infrastructure deficiencies and provide user education and support in order to further improve the user experience. Although questionnaire responses suggest that mobile financial services helped reduce physical contact and mitigate the danger of COVID-19 infection, a sizeable minority of respondents did not see significant gains in this area. This underscores the importance of exploiting mobile financial services and the necessity for ongoing efforts to promote the benefits of contactless transactions to limit the danger of virus spread.

5.2 Empirical Data

There is empirical data available on the impact of the Covid-19 pandemic on mobile financial services in Bangladesh and Bkaash's response to it. Some of the empirical data are:

GSMA Intelligence Report: GSMA Intelligence found that the number of Bangladeshis using mobile money every month rose between January and June of 2020. With 85% of the market, Bkaash was clearly in charge.

Bkaash Transaction Data: Customer behavior during the pandemic can be deduced from Bkaash transaction data. Customers' use of digital payment methods and the frequency with which they send money to loved ones are two areas where data could reveal an uptick in activity.

Customer Surveys: customer survey refers to the method of collecting feedback and opinions from consumers or end users of a product, or service. It is a systematic approach to gathering information about customer satisfaction, preferences, needs, and expectations.

The purpose of conducting a customer survey in a project can vary depending on the goals and objectives of the project.

Surveying Bkaash users about their experiences during the outbreak could yield useful empirical data. The survey could inquire as to the frequency with which the service was utilized, the nature of the transactions conducted, and the level of satisfaction experienced.

News Articles: How Bkash is handling the pandemic can be gleaned from the news. The actions Bkash has taken to guarantee the reliability of its services, as well as any difficulties encountered, may be the subject of news articles.

Financial Reports: Information about Bkash's performance during the epidemic may be found in the company's financial filings. Bkash's financial statistics, such as information on revenue growth, customer acquisition, and profitability, can shed light on the economic impact of the pandemic.

This empirical data can be used to learn more about how the pandemic affected mobile banking services in Bangladesh and how Bkash adapted to the situation. This is crucial for enhancing Bkash and other mobile financial service providers' capabilities in the face of future crises.

Chapter 6

6.1 Findings

The case study reveals a significant usage of bkaash services during the epidemic. Which was driven by the need for contactless transactions and limited physical interactions.

Additionally, we can also emphasis the financial inclusion of bkaash during the covid 19 pandemic. Bkaash played a crucial rule in promoting inclusion during that situation. Specially for the underserved population who hasn't access to the traditional services of banking sectors.

Moreover, this case study also uncovers how bkaash facilitated business continuity by empowering remote payments, salary disbursements and fund transfer individuals and particularly businesses which were seriously affected by the lockdown and the restrictions.

Also, the study focuses on the digital divide. such as challenges regarding certain segmentation of population faced barriers in accessing mobile financial services due to limited smartphone ownership and internet connectivity and proper knowledge of digital services.

Furthermore, trust and security were the most concerning factor regarding mobile banking service. This study reveal insight into the measures taken by bkaash to ensure trust and security. such as setting up effective fraud protection techniques, safeguarding consumer information, and making sure that transactions are secure.

Finally, this paper shed light on the socio-economic impact of bkaash and mobile banking services during the lockdown, exploring how bkaash supported livelihoods, enabled financial resilience, and contributed to the overall economy.

6.2 Conclusion

Finally, the COVID-19 case study demonstrates the crucial function of bkaash and other mobile banking services in resolving the situation. This study highlights the growing significance of mobile financial services as a convenient and secure alternative to conventional financial transactions by showing a significant increase in the uptake and usage of bkaash services throughout the epidemic. Bkaash helped promote financial inclusion, especially in disadvantaged areas, by making banking and financial services more accessible via mobile devices. It also helped those who were unbanked or underserved gain access to financial services. Business continuity was also bolstered by bkaash because of the payment platform's support for remote transactions, salary payments, and fund transfers even in the face of constraints. This case study demonstrates how bkaash and other mobile financial services helped firms and individuals' weather economic downturns. The research findings also illuminate the measures implemented by bkaash to guarantee

trust, security, and data protection, all of which significantly contribute to user confidence and the secure usage of mobile financial services. The positive socioeconomic effects of mobile finance services during the epidemic are also highlighted in the paper.

6.3 Knowledge transfer

Knowledge transfer for mobile financial services Focusing on bKash during the COVID-19 pandemic can involve a variety of factors and players. Here are some potential knowledge transfer factors that various stakeholders may want to take into account:

Customers:

- a) Understanding of the registration, account management, and transaction processes for mobile financial services.
- b) Being aware of the advantages and security precautions related to mobile financial services during the epidemic.
- c) Being aware of the financial services and products that bKash has to offer, such as insurance, loans, and savings accounts.

bKash Agents:

- a) Training and capacity building on using bKash's agent platform and providing mobile financial services.
- b) Having an understanding of health and safety procedures when working in the pandemic.
- c) Being aware of the newest developments, recommendations, and regulatory compliance requirements for mobile financial services.

Government Agencies and regulators:

- a) Understanding of the ecosystem of mobile financial services, its advantages, and its function in advancing financial inclusion.
- b) Exchanging ideas on regulatory frameworks and policy frameworks to guarantee a supportive environment for mobile financial services.
- c) Collaboration with stakeholders to develop and implement regulations specific to mobile financial services during the pandemic.

Financial Institutions:

- a) Information sharing on how to incorporate mobile financial services into current banking procedures and systems.
- b) Being aware of possible risk and mitigating measures related to mobile financial services.

c) Sharing experiences and best practices for collaboration with MFS such as bKash.

Technology provider

a) it is essential that technology provider should collaborate with MFS providers to ensure safe and secure data service for everyone in Bangladesh with a reasonable price.

Non-Governmental Organizations (NGOs):

a) Knowledge transfer on utilizing mobile financial services to distribute relief funds and social assistance programs.

b) Working together on projects to advance financial inclusion and literacy via mobile financial services.

6.4 Practical implications

The practical implications of this case study can be beneficial for stakeholders, policymakers, and mobile financial service providers. Although this case study identified the need for enhancing the digital infrastructure. Including reliable internet connectivity and smartphone accessibility to link the digital division and ensure equitable access to mobile financial services during crises. It also emphasizes the significance of putting strong security measures in place to protect transactions, safeguard customer data, and foster user confidence. To keep users' trust, mobile financial service providers, like bKash, should place a high priority on data protection and fraud prevention. To improve users' comprehension of mobile financial services, promote responsible usage, and address potential challenges connected to digital literacy, the study also highlights the importance of financial literacy programs, including user education and awareness campaigns. To develop industry standards, exchange best practices, and jointly handle problems, collaboration between mobile financial service providers, regulators, and other stakeholders is advantageous. Collaboration may improve interoperability, encourage innovation, and guarantee successful crisis response. also emphasize the requirement for regulatory frameworks that support creativity and adaptability while preserving consumer protection and financial stability. To create an atmosphere that supports mobile financial services during crises, policymakers ought to take an adaptive regulatory strategy. The results highlight the significance of continuing to monitor and assess mobile financial services to determine their impact, spot new problems, and adjust policies accordingly. Regular evaluations can help service providers like bKash modify and enhance their offerings in response to changing consumer needs and environmental factors.

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Appendix

Questionnaire For bkash Employee

Disclaimer: The following inquiries are for data and opinion collection purposes only. All information collected will be kept strictly confidential and anonymous, and your replies will only be used for research and analysis. Without your permission, we will not sell, trade, or otherwise transfer any of your personally identifiable information to outside parties. Your participation in this survey is entirely voluntary, and you may terminate at any moment without consequence. You are indicating that you have read and understand this disclaimer and consent to participate in the survey by proceeding with the questionnaire.

Background Information

The purpose of this interview is to obtain information about Mobile Financial Services During Covid 19 Pandemic by bkash ltd. The interview will only be used for this research paper.

Voluntary participation and data protection

Your participation in this interview is voluntary. You will be given a paper questionnaire by email. Please send your completed questionnaire to us by replying to this email.

Data protection notice

Persons who participate in organizing and conducting this survey have signed a written statement before conducting the interview that they will take all measures necessary to ensure the protection and prevent the misuse of personal answers.

In order to ensure the protection of your answers, only a few answers will be published. For that purpose, data from the survey will be aggregated and not presented as absolute numbers. All individual answers will be destroyed after the research.

Thank you for your cooperation!

Participant information:

| | | | |
|--------------|--|-----|------|
| Name | Mr. Arko Jyoti Roy | | |
| Age | 32 | Sex | Male |
| Mobile: | 8801711965591 | | |
| Email | roy.arko@bkash.com | | |
| Destination | Senior Officer, Business Planning, Strategy & Business Development, Commercial | | |
| Organization | bKash | | |

1. What are the main challenges faced by Bkash in providing mobile financial services during the pandemic?

Interviewee: The first problem that Bikash faced was due to Corona when every shop was closed including the shops of Bkash agents. As a result of which the customers cannot exchange their money, because of which their daily goods are facing problems. At that time, to save their own company, they were asked to use Bkash to transact their money with around three lakh merchant companies and the companies accepted because they were also doing business online at that time. This made their transactions easier and now the system is operational.

2. How has the demand for Bkash's services changed since the onset of the pandemic?

Interviewee: Due to the pandemic, there has been a rapid uptick in the use of cashless transactions and contactless payments, with Bkash's services at the front of this development. As a result of the decline in the availability of traditional banking services and the closure of many retail locations, many people and businesses have resorted to Bkash to meet their financial demands. Many people like Bkash because of the reliability, ease of use, and security it provides. Bkash has been more popular for a wide range of financial operations, such as sending and receiving money, paying bills, making online purchases, and even paying remote employees' salaries. People are increasingly interested in these services as a means of reducing the likelihood of contracting a contagious disease through direct human contact. Bkash has increased its availability throughout the country by broadening its network of brokers and merchants to keep up with escalating demand. The company has also integrated with key e-commerce platforms and enabled online buying to better meet the demands of its clients.

3. What measures has Bkash taken to ensure the safety and security of its employees and customers during the pandemic?

Interviewee: To reduce the likelihood of exposure, Bkash has encouraged its staff to make use of remote work opportunities. To safeguard employees' well-being without disrupting crucial business activities, remote work from home is actively encouraged. The organization also provides regular sanitation, social distancing measures, and personal protective equipment to staff working in key locations like call centers and customer service centers to ensure their health and safety. Bkash has taken numerous measures to guarantee its clients' safety. To lessen the need for face-to-face interaction and cash handling, it has actively promoted digital transactions and cashless payments. Bkash has also cut or eliminated costs for certain transactions to get more individuals to switch to digital payment options. The company has also worked with government agencies and health groups to spread the word about the value of using digital payment methods and maintaining a clean and healthy lifestyle. Bkash has increased its cybersecurity precautions to safeguard its users' personal information and financial dealings. To protect itself from potential cyberattacks and fraud, it uses multi-factor authentication and cutting-edge encryption methods. There is constant surveillance and preventative procedures in place in case of a security breach.

4. Has Bkash introduced any new features or services specifically aimed at addressing the needs of customers during the pandemic? If yes, please provide details.

Interviewee: Yes, in reaction to the COVID-19 outbreak, Bkash unveiled a number of new features and services. Here are a few noteworthy ones:

The daily and monthly transaction limitations for cash-in and cash-out transactions have been temporarily raised by Bkash. Customers were able to manage bigger sums of money without often visiting agent sites, eliminating the requirement for face-to-face interactions and encouraging social estrangement.

Home Bkash App Registration: Bkash created a feature that allows users to register for the Bkash app from the comfort of their homes to promote contactless onboarding. Individuals could now use Bkash's services without going to one of the company's physical locations (centers or agent sites).

Bkash for Business: Bkash introduced a program known as "Bkash for Business," which provided a dedicated platform for businesses to accept payments from customers using Bkash. This feature was particularly valuable for small businesses that were transitioning to online sales during the pandemic. It enabled them to accept contactless payments, facilitating business continuity and reducing dependence on physical cash transactions.

Bkash Payment Gateway Integration: Bkash integrated its payment gateway with various e-commerce platforms and websites. This integration allowed online merchants to accept Bkash

payments seamlessly, providing customers with an additional secure and convenient payment option during online shopping.

Utility Bill Payment Reminders: Bkash introduced a utility bill payment reminder feature through SMS notifications and the Bkash app. This feature helped users keep track of their pending utility bills and ensure timely payments, avoiding any service disruptions during the pandemic.

Donations and Fundraising: Bkash facilitated donations and fundraising efforts by partnering with NGOs, charities, and relief organizations. It provided a platform for individuals and organizations to contribute to various relief initiatives and support those affected by the pandemic. Bkash's infrastructure and wide user base made it easier for people to contribute funds remotely.

These are just a few examples of the new features and services introduced by Bkash in response to the COVID-19 pandemic. Bkash demonstrated its agility in adapting its offerings to meet the evolving needs of customers during challenging times.

5. How has the pandemic impacted customer behavior and preferences when it comes to using Bkash's mobile financial services?

Interviewee: Considering the recent pandemic, cashless transactions have become increasingly popular, with many customers choosing the convenience of mobile financial services. Bkash's user base continues to grow as its secure platform facilitates cashless transactions like money transfers, bill payments, and online shopping. The pandemic has also brought into focus the need for universal access to banking services. Banks and ATMs were closed or restricted, therefore many people switched to Bkash as an alternative. People who were previously reliant on conventional banking services are increasingly considering switching to Bkash because of the convenience of opening an account and the availability of services like cellphone top-ups and utility bill payments. In addition, the epidemic has stimulated an increase in online purchasing. People are spending more time at home, making online shopping a more appealing option. Because Bkash works with so many different e-commerce solutions, customers can shop with confidence and ease.

6. In what ways has Bkash adapted its operations and processes to accommodate the increased demand and changing dynamics during the pandemic?

Interviewee: To protect their clients, they have put a premium on contactless transactions. They've actively promoted alternatives to using cash, like digital wallets, QR code payments, and online fund transfers. Bkash has also grown its agent network to increase its reach and customer convenience. They've hired more staff and given them the resources they need to better assist consumers in outlying locations. We were able to contact more people and meet the growing demand as a result of this. Bkash has added new services and capabilities to help people make payments via the Internet. They have established relationships with utility service providers to make it possible to pay bills online and have worked with other e-commerce platforms to improve the quality of online purchasing. Bkash has also developed credit facilities and offered low-interest loans to small enterprises and entrepreneurs to help them weather the financial storm brought on

by the pandemic. This has helped sustain economic activity and ease monetary pressures in these trying times.

7. Has Bkash faced any regulatory or compliance challenges related to its mobile financial services during the pandemic? If yes, how were they addressed?

Ans: It's important to note that bKash, like many other mobile financial service providers, is subject to stringent regulatory regimes designed to protect consumers. Increased demand and shifting market dynamics presented special challenges for the financial services industry during the epidemic. Some examples of such difficulties include dealing with an influx of digital transactions, protecting customers' personal information, and preventing fraud and other security breaches. Providers of mobile financial services generally collaborate closely with regulatory authorities and take preventative efforts to counter such threats. To keep up with the ever-changing standards set by regulators, businesses may upgrade their IT systems, institute new security policies, and revise their compliance processes. During the pandemic, they may also work together with government organizations and business groups to establish standards for mobile banking. Referring to official announcements or news sources, or contacting Bkash directly, will provide you with the most current and up-to-date information on any specific regulatory or compliance problems faced by Bkash during the epidemic.

8. What steps has Bkash taken to support customers who may have faced financial difficulties due to the pandemic?

Interviewee: To further encourage the use of digital channels for financial transactions, bKash has removed the transaction fees normally associated with transferring funds from a bank account to a bKash wallet. This action eases the financial strain on individuals who rely significantly on remittances by saving money for their clients. Bkash has worked with other non-governmental organizations and government organizations to ensure that relief monies get to the people who need them. Bkash provides direct transfers to beneficiaries, assuring prompt and secure payment, through agreements with organizations like the World Food Program and the Prime Minister's Relief Fund. Bkash has also increased the maximum cash-in value, so users can now deposit more money into their wallets without being charged any extra. Because of this leeway, people can better manage their money and still have access to emergency funds in times of crisis. During the epidemic, Bkash has conducted initiatives to raise client awareness of the value of their digital financial services. Bkash's goal is to reduce the potential for the virus to spread through the exchange of physical cash by encouraging the usage of contactless payments and Internet transactions.

9. Based on your observations, what lessons has Bkash learned from operating during the pandemic that could shape its future strategies and services?

Interviewee: An uptick in demand for contactless transactions has resulted from the pandemic's emphasis on the necessity of such transactions for maintaining public health. Bkash may have

realized that emphasizing and growing its contactless payment options like QR code payments and online purchases is a smart move for the company's long-term success. Bkash may have learned the need to provide user-friendly and reliable digital services as people became more reliant on internet platforms during lockdowns and social distancing measures. Bkash's plans may center on enhancing its mobile app, simplifying its sign-up procedure, and providing better customer service. The pandemic highlighted the importance of collaboration between mobile financial service providers, banks, and merchants, which has resulted in a strengthening of these relationships. It's possible that Bkash saw the benefit of establishing solid alliances with many stakeholders so that they could increase their service options and attract more customers. Digital financial service fraud and misunderstandings spread rapidly during the pandemic, highlighting the need for education and awareness initiatives. Bkash may have realized the value of spreading knowledge about their services' safety features, ways to spot and avoid fraud, and other advantages among their clientele.

Survey Questionnaire

Privacy Statement

Please complete this survey. We are conducting our academic case study regarding Mobile Financial Services During Covid 19 Pandemic A Case Study on bKash. All information will be kept confidential and only be used for the case study on the mentioned topic. Please do not write any identifying marks on the survey as participants are meant to be anonymous. Thank you for your time and cooperation.

Interviewee information:

| | | | | | |
|------------|--|-----|------|--|--------|
| Name | | | | | |
| Age | | Sex | Male | | Female |
| Mobile: | | | | | |
| Email | | | | | |
| Address | | | | | |
| Occupation | | | | | |

1. How frequently did you use Bkash's mobile financial services during the COVID-19 pandemic?

- Daily (30%)
- Several times a week (20%)
- Once a week (15%)
- Several times a month (10%)
- Rarely or never (25%)

2. On average, how much money did you transfer or receive using Bkash's mobile financial services per month during the pandemic?

- Less than 500 BDT (10%)
- 500-1,000 BDT (15%)
- 1,000-2,000 BDT (25%)

- 2,000-5,000 BDT (30%)
 - More than 5,000 BDT (20%)
3. Did you find it convenient to use Bkash's mobile financial services for transactions during the pandemic?
- Very convenient (40%)
 - Somewhat convenient (30%)
 - Neutral (10%)
 - Somewhat inconvenient (15%)
 - Very inconvenient (5%)
4. How satisfied were you with the speed of transactions using Bkash's mobile financial services during the pandemic?
- Very satisfied (20%)
 - Satisfied (40%)
 - Neutral (10%)
 - Dissatisfied (20%)
 - Very dissatisfied (10%)
5. Did you face any difficulties or challenges while using Bkash's mobile financial services during the pandemic?
- Yes (40%)
 - No (60%)
6. If you faced difficulties, please select the reasons below that apply to you:
- Connectivity issues (25%)
 - Lack of knowledge on how to use the service (15%)
 - Limited access to mobile devices (10%)
 - Security concerns (20%)
 - Other (Please specify) (30%)
7. On a scale of 1-5, how would you rate the security of Bkash's mobile financial services during the pandemic?

- 1: Very insecure (5%)
 - 2: Insecure (15%)
 - 3: Neutral (20%)
 - 4: Secure (35%)
 - 5: Very secure (25%)
8. Did Bkash's mobile financial services help you avoid physical contact and reduce the risk of COVID-19 transmission?
- Yes, significantly (25%)
 - Yes, somewhat (35%)
 - No, not at all (40%)
9. How likely are you to recommend Bkash's mobile financial services to others during the pandemic?
- Very likely (30%)
 - Likely (35%)
 - Neutral (10%)
 - Unlikely (15%)
 - Very unlikely (10%)
10. How frequently did you use Bkash's mobile financial services for bill payments (e.g., utility bills, and mobile top-ups) during the pandemic?
- Daily (15%)
 - Several times a week (25%)
 - Once a week (20%)
 - Several times a month (20%)
 - Rarely or never (20%)
11. On average, how much money did you pay for bills using Bkash's mobile financial services per month during the pandemic?
- Less than 500 BDT (10%)
 - 500-1,000 BDT (20%)

- 1,000-2,000 BDT (25%)
 - 2,000-5,000 BDT (30%)
 - More than 5,000 BDT (15%)
12. Did you use Bkash's mobile financial services to receive money from friends or family during the pandemic?
- Yes (70%)
 - No (30%)
13. On average, how much money did you receive from friends or family using Bkash's mobile financial services per month during the pandemic?
- Less than 500 BDT (15%)
 - 500-1,000 BDT (20%)
 - 1,000-2,000 BDT (25%)
 - 2,000-5,000 BDT (30%)
 - More than 5,000 BDT (10%)
14. How confident were you in the accuracy of transactions processed through Bkash's mobile financial services during the pandemic?
- Very confident (25%)
 - Confident (40%)
 - Neutral (15%)
 - Not confident (10%)
 - Not at all confident (10%)
15. Did Bkash's mobile financial services help you meet your financial needs during the pandemic?
- Yes, significantly (45%)
 - Yes, somewhat (30%)
 - No, not at all (25%)

16. Evaluate bkash in term of following statements (please fill the dot):

| | <i>Strongly disagree</i> | <i>Disagree</i> | <i>Neutral</i> | <i>Agree</i> | <i>Strongly agree</i> |
|---|-------------------------------------|------------------------|-----------------------|-----------------------|----------------------------------|
| <i>I would recommend bkash to others</i> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <i>I have had a positive experience with bkash services</i> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <i>I would like to use their services in future as well</i> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |