



**Department of
Business Administration**

Fintech Innovations and the Future of the Banking and Financial System in Bangladesh

Project Report Submitted to the Department of Business Administration to Fulfil the Degree of Bachelors of Business Administration

Prepared for

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Major in Finance

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Letter of Transmittal

Ms. Rafayat Jalal
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Subject: Submission of project report on “Fintech Innovations and the Future of the Banking and Financial System in Bangladesh”.

Dear Ma’am,

As a requirement for the completion of a project under BBA program of East West University, I would like to submit my project report titled “Fintech Innovations and the future of the Banking and Financial System in Bangladesh”. I have completed my project work in East West University under your supervision.

I sincerely hope that this report fulfils the objectives and requirements of my project and that it finds your acceptance. I have attempted my best to finish the report with essential data and recommended proposition in a significantly compact and comprehensive manner as possible.

I am grateful to you for your guidance and kind cooperation at every step of my endeavour on this report. I shall remain deeply grateful if you kindly take some pen to go through the report and evaluate my performance.

Sincerely yours,
Mohammad Mahmudul Hasan
2020-1-10-093
Department of Business Administration
East West University
Date: 9th June, 2024

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Executive Summary

Fintech is the use of technology to provide financial services. The term is also used to denote small capital-based start-ups that provide financial services with an integration of technology. Fintech innovations make financial services more accessible to everyone. Looking at customers' high demand for fintech services, worldwide the investment in the fintech sector has grown rapidly. Some most invested fintech innovations are peer-to-peer lending, internet banking, Robo-advisors, crowdfunding, mobile banking. Bangladesh despite being a developing country, there is an increasing demand for fintech services among people. Over the years the use of card transactions, mobile banking, internet banking, agent banking has increased significantly among the people of Bangladesh. Nowadays the growing adaptation to fintech is significantly impacting traditional banks. People are choosing fintech companies over traditional banking service. It is because fintech companies are providing speedy, cost saving and more convenient services compared to traditional banks. Customers now want hassle free financial services. They don't want to waste time going to a bank to take financial services, because fintech companies are providing a variety of financial services that customers can access just by using their smartphones. Traditional banks have also recognized the increasing customer demand. That's why many banks now are also providing mobile banking services. Though there is an increasing demand for fintech services in Bangladesh but the fintech services presented in Bangladesh are very limited. The trending fintech innovations such as p2p lending, crowdfunding, Robo-advisor are not so popular in Bangladesh. Keeping the increasing demand in mind, fintech firms should start developing these services and educating people about their benefits. Apart from all the opportunities, fintech firms are also subject to risks like data handling and cyberattacks. Fintech firms enhance security measures to protect customers' privacy and provide tight security to customers' funds.

1.Introduction:

1.1 Background of the study

The term fintech or financial technology is used to denote companies that provide financial service with modern technology. Fintech firms are mostly SMEs with small capital but they have a clear idea of how to introduce a new or improve an existing service (Saksonova, 2017). This quickly developing industry is significantly altering the traditional banking and financial system. Emerging technological innovations have the potential to transform the financial service industry as they make financial transactions less costly, more convenient and secure (Chen M. A., 2019). In the past few years, the world has seen massive developments in fintech. According to (Saksonova, 2017) the rise of fintech companies has been caused by two factors: technological advancements that have improved customer experience, performance, and convenience, and the limitations of traditional banking systems. Fintech companies are dominating traditional financial systems and the reason is customers are shifting toward fintech companies from traditional banking systems and banks that made partnerships with fintech companies have gained competitive advantage. (PWC, 2017). According to (Schueffel, 2016) peer to peer lending, Robo-advisor, internet banking, online identification, mobile banking and crowdfunding are the most invested financial technologies in the financial sector.

The total population of Bangladesh is now 16.98 crore and 27.96% of the population are aged between 15-29. As a major portion of the population are youth, it indicates that there is a huge opportunity for technology-based businesses in Bangladesh. In terms of availability and affordability of financial services Bangladesh ranks moderately. In Bangladesh approximately 3 out of 4 people do not have an account with a bank or non-bank financial institution. According to the Bangladesh Bureau of Statistics (BBS) survey titled “Bangladesh Sample Vital Statistics” approximately 72% of people aged over 15 are unbanked. In response to the fast smart phone adaptation among Bangladeshi people, the inception of MFS was held in 2011. Since the inception of MFS Bangladesh has experienced a massive growth in number of account holders, volume and amount of transactions in MFS. MFS activities continue to dominate the fintech ecosystem in Bangladesh. Instead of using the full potential of fintech, financial service providers still use MFS in collaboration with other firms (Rahman, 2021).

1.2 Objective of the study

1.2.1 Broad Objective

This report concentrates on the fintech innovations and the future of the banking and financial system in Bangladesh. It provides an idea about various emerging fintech innovations around the world and the current trends of financial technology in Bangladesh. By analysing the perception of different fintech users in Bangladesh it also found the challenges and opportunities of fintech and provided a future outlook of the financial system in Bangladesh.

1.2.2 Specific Objective

- To know about various emerging Fintech innovations around the world.
- To know how fintech innovations are transforming the banking industry.
- Analysing the current fintech trends and their usage in Bangladesh.
- Analysing the opinion of fintech users in Bangladesh.
- To identify opportunities of fintech in Bangladesh.
- To identify the challenges of fintech in Bangladesh.
- To recommend how to deal with the challenges.

1.2.3 Research Methodology

- Both primary and secondary data has been collected. Some statistical data has also been used to show comparison.
- Literature review, industry information and survey analysis
- From Bangladesh bank monthly economic trends of e-banking Data taken for the last 5 financial years.
- The Survey contains 22 questions in total.
- In total 121 responses were collected from both male and females.

2.0 Literature Review:

The combination of technology and finance has resulted in an abundance of fintech innovations that are changing the banking sector and financial system. This literature review summarizes major research findings and scholarly perspectives on fintech developments and their implications for the future of the banking and financial system.

FinTech Innovations:

Fintech is the combination of technology and finance. (Wonglimpiyarat, 2017) defined fintech as financial services supported by technology that utilizes integrated IT to improve key performance. According to (Saksonova, 2017) Fintech companies are typically small-equity start-ups, mostly composed of SMEs having a strong understanding of an innovative product or how to enhance an already-existing service. (Chen M. A., 2019) categorized fintech innovations into seven categories and they are cybersecurity, mobile transactions, data analytics, blockchain, peer-to-peer, robo-advising, and internet of things (IoT).

In response to such possible frauds in Fintech, cybersecurity activities are vital to prevent and mitigate rising risks in an IT based organization (Ng, 2017). While the basics of fraud are the same as before, frauds now use new technology and strategies to fight against fintech (Deloitte., 2016). Compared to traditional businesses, fintech solutions often have features related to anonymity which allows fraudsters to hide the source of hacking and wrong doing (Avergun, 2016). Another difficulty with Fintech adoption is the lightning-fast processing of transactions, payments, and instructions, which frequently suppresses the warning flag (Miller M. A., 2015). Traditional or manual controls won't be enough to regulate potential frauds in fintech. Authentication technologies, such as digital certificates, mobile device certificates, and biometric identification, can offer greater privacy than typical password logins (Rowntree, 2016).

Big data analytics in the FinTech sector helps companies to immediately analyze huge volumes of financial data, which helps with fraud detection, customer segmentation, and more precise forecasting. (Aho, 2020) defined big data as the collection, storage, and analysis of massive and complicated collections of information. This data can be structured, semi-structured, or unstructured, and it can originate from a number of sources such as social media, sensors, and transactional systems and also in many different forms including text, images, videos and audios (Mhlanga, 2024). It is challenging to deal with big data using normal processing methods that are typically designed for processing a specific type of data. Because of the large volume and variety of big data organizations are using technologies like NoSQL, Hadoop and Spark to manage big data (Venkatesh, 2019). Fintech companies use big data to provide personalized services. Big data can be used to analyze a customer's earnings, consumption, and financial history to create personalized insurance policies or investment portfolios (Cohen, 2018). By utilizing big data, fintech companies can divide their customers into different segments according to their behaviour, demographics and interest (Rizvi, 2018). Big data can also be used by fintech firms to identify customers' interest in particular products (Lee, 2018).

Mobile users and the use of smartphones are continuously expanding worldwide and the functionality and features are being improved. According to (Kang, 2018) smartphones have become necessary for numerous financial transactions. (Coffie, 2020) said access to financial service is a critical factor and financial inclusion by mobile payments have filled the gap created by the limitations of traditional banking. (Kang, 2018) has mentioned that fintech

mobile payments are exposed to various risks regarding privacy and security issues and certain requirements are needed to be fulfilled to ensure privacy. (Choi, 2019) said that the uncertainty level in mobile payments can be reduced by following the framework of payment directive service, which decentralises the payment network. Consumers' data is very sensitive as there are so many hackers involved in unethical practices (Lu, 2018). Customer satisfaction on mobile payment depends on the usefulness they get and on the security. These are the things that motivated customers to continue mobile payments (Nan, 2020). Regulations have helped in addressing various legal transactions and made payment systems reach various sectors. In the economy (Malala, 2017). Parties involved in mobile payments are usually merchants, individuals or groups of individuals (Du, 2018). (Gomber, 2018) found that mobile phone users are primarily focused on online banking though there are other payment formats such as cash, cards and checks. (Soutter, 2019) said that fintech payment encompasses a wide range and mobile money, electronic money, p2p payment, digital currency, blockchain technology, distributed ledger technology all are classified as fintech payments.

Crowdfunding is a way of raising money for commercial projects and businesses. Crowd test is a crowdfunding concept where entrepreneurs propose their unique ideas to a group of investors (Borrero-Domínguez, 2020). (Rossi, 2018) Said there are three main actors in the crowdfunding process: the supply side (Group of investors searching for investment opportunities), the demand side (entrepreneurs seeking capital) and the platform where both the supply and demand side will meet. According to (Mollick, 2014) Crowdfunding refers to the efforts of entrepreneurial individuals and groups (cultural, social, and for-profit) to fund their ventures by collecting relatively small contributions from a large number of people via the internet, without the use of traditional financial intermediaries. The idea of crowdfunding is not new but the platform is. (Agrawal, 2014) predicted that many investors may lose significant sums not only to fraud but also to incompetent managers, bad ideas and bad luck also the ideas and intellectual properties can be stolen due to the early-stage public disclosure.

P2P lending is all about lending money to individuals or businesses using web platforms that connect lenders with borrowers (Adriana, 2018). One of the risks related to peer-to-peer lending is the loan default rate which depends on two things: the borrower's qualities and the terms and conditions of the loan and regulations are also necessary to balance the risk and returns (Funke, 2019). The nation's growing mobile phone users have played a big role in the increasing popularity of P2P lending which has a noticeable impact on the growth of businesses (Stern, 2017). Because of the COVID-19 epidemic, traditional market theories have been swapped with original approaches like peer-to-peer lending platforms, which offer inclusive financing choices for rural borrowers who otherwise have limited access to capital (Najaf, 2022). Investors who spend their funds on this platform confront substantial risks but are repaid by high returns that boost their portfolio efficiency (Marot, 2017)

Blockchain is an electronic payment method where payment security is ensured regardless of the parties involved. According to (Anifa, 2022) Blockchain is a type of Distributed Ledger Technology (DLT) that has established its place in the finance industry by enhancing cryptocurrency technology and other technologies with essential implementation in financial service. Blockchain is playing a vital role to boost the economy as it helps in providing a virtual currency payment system that can be accessed by websites (Henly, 2018). Large corporations are also using blockchain to provide investors access to transaction details in a decentralized and transparent way (Umarovich, 2017). Blockchain start-up firms use initial coin offering as a method to increase revenue for business operations (Tönnissen, 2020). Blockchain companies use smart contracts to automatically execute any contract (Daj, 2018). Blockchain technologies

provide various applications to solve problems as a result it is being adopted worldwide and updating the market infrastructure (Surujnath, 2017). Cryptocurrency is a widely adopted blockchain technology (Daj, 2018). (Olsen, 2018) claimed that Bitcoin cryptocurrency is the most secure and innovative platform for payment networks.

Robots and Artificial Intelligence are transforming the business environment of every sector. This is also applicable for the finance industry, banks and financial start-up companies are considering fintech as a key element in their strategy (Jung, 2018). The rapid growth of AI and robot-based systems is impacting the economic, social and labour domains (Acemoglu, 2020). According to (Huang, 2018) AI is a major source of innovation that will eventually replace human jobs. Firstly, automated technology is expected to develop mechanical intelligence, then analytical capacity (e. g. Robo-advisors) and eventually intuitive and empathetic intelligence which will require workers to become specialized in tasks that automation can't easily accomplish (Huang, 2018). (Jung D. D., 2018) defined Robo-advisor as a digital platform combining interactive and intelligent user assistance features that utilize information technology to guide customers through an automated investment advisory process. Robo-advisors offer advantages over traditional human advisors as it provides improved accessibility to financial services, unbiased investment options and also lower the management fees (Faubion, 2016). Banks and financial organizations are launching these services to expand their business to a larger audience by gaining competitive advantage (Belanche, 2019).

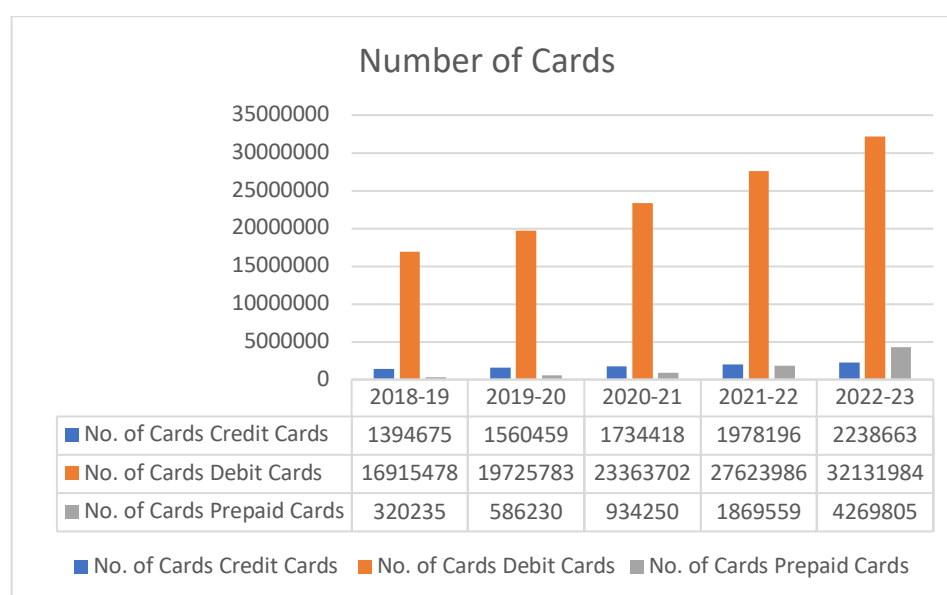
Financial engineers need to manage hundreds of millions of data sets and to do that IOT devices are used to transform customer information and save it in the cloud (Suseendran, 2020). Billions of devices are connected with each other across the globe that share information on the cloud. Nowadays banks are using smartphones, social media and new financial technologies to connect with the customers (Rega, 2017). IoT technology enables easy access to banking services through credit and debit cards and also the bank can assess ATM usage in a certain area and adjust ATM installations accordingly (Suseendran, 2020). All the information of the customer are stored in the IoT device when customer uses it and bank can take the opportunity to know about customer's business need (Nakashima, 2018).

Over the years fintech innovations have expanded gradually and now it is making digital financial services available to people of every sector. According to (Buckley, 2016) Fintech 1.0 (1866-1967) was a shift from analog to digital practices; fintech 2.0 (1967-2008) was the expansion of traditional digital financial services, resulting in digitalization and globalization of finance; and fintech 3.0 (2008-present) is about making digital financial services accessible to all. The fourth industrial revolution has led to the rise of disruptive digital technologies like the Internet of Things, extended reality, and artificial intelligence, which are transforming our lives. According to (Stern, 2017) This transformation has also affected the financial sector and resulted in the rise of fintech which is primarily defined by the development of technical advancements that support the creation of unique, profitable financial services-related company concepts. The traditional banking system has failed to fulfil the diversified needs of customers with the rapid development of technology. (Saksonova, 2017) claimed that the rise of fintech companies has been caused by two factors: technological advancements that have improved users' experience, performance, and convenience, and the limitations of traditional banking systems. The diverse needs for finance have not been met by traditional sources of funding. While crowdfunding, peer-to-peer lending, microfinance, venture capital, crowdfunding, SME stock exchanges, and other financial innovations may have originated in one region of the world, they quickly spread throughout the world (Drummer, 2017). The

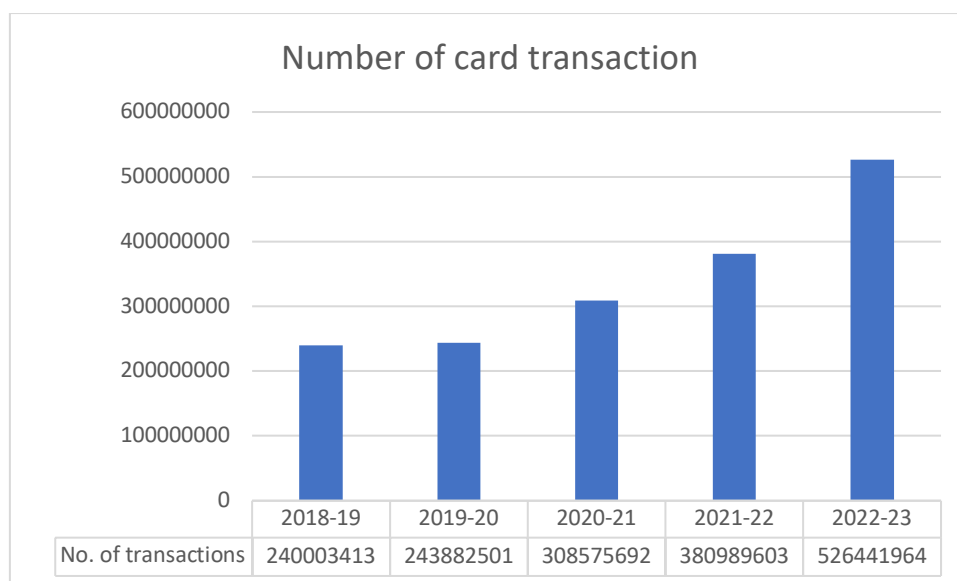
Internet has facilitated the growth of fintech in unbanked areas and made financial services more accessible (Popkin, 2019).

3.0 Overview of FinTech in Bangladesh

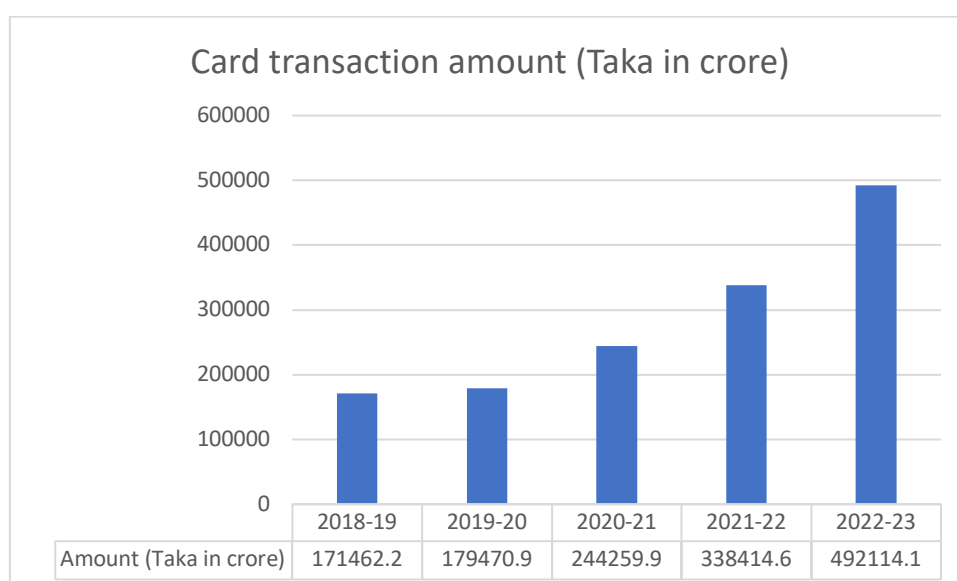
3.1 Card transactions in Bangladesh



The bar chart shows the number of credit, debit and prepaid cards in Bangladesh among the financial years 2018-19 to 2022-23. The chart shows that there is a continuous upward trend in the number of credit, debit and prepaid cards in Bangladesh. As of the financial year 2018-19 the number of credit cards in Bangladesh was 13,94,675 which grew continuously and became 22,38,663 as on 2022-23. Debit cards are more widely used in Bangladesh than credit cards and prepaid cards as the bar chart shows the number of debit cards is much higher than the number of credit and prepaid cards and it has grown continuously over the years. As of 2018-19 the number of debit cards in Bangladesh was 1,69,15,478 which grew continuously and became 3,21,31,984 in 2022-23. The number of prepaid cards in Bangladesh has also increased over the years. In 2018-19 the number of prepaid cards in Bangladesh was 3,20,235 it grew steadily and became 42,69,805 in 2022-23.



The bar chart shows the total number of all credit, debit and prepaid card transactions in Bangladesh from 2018-19 to 2022-23. Number of card transactions in Bangladesh has steadily increased over the years. In 2018-19 the number of card transactions in Bangladesh was 24,00,03,413. And in 2022-23 the number of card transactions was 52,64,41,964 in Bangladesh. So, it can be said that the usage of cards has increased among the Bangladeshi people and they have adopted the habit of card transactions over the years.

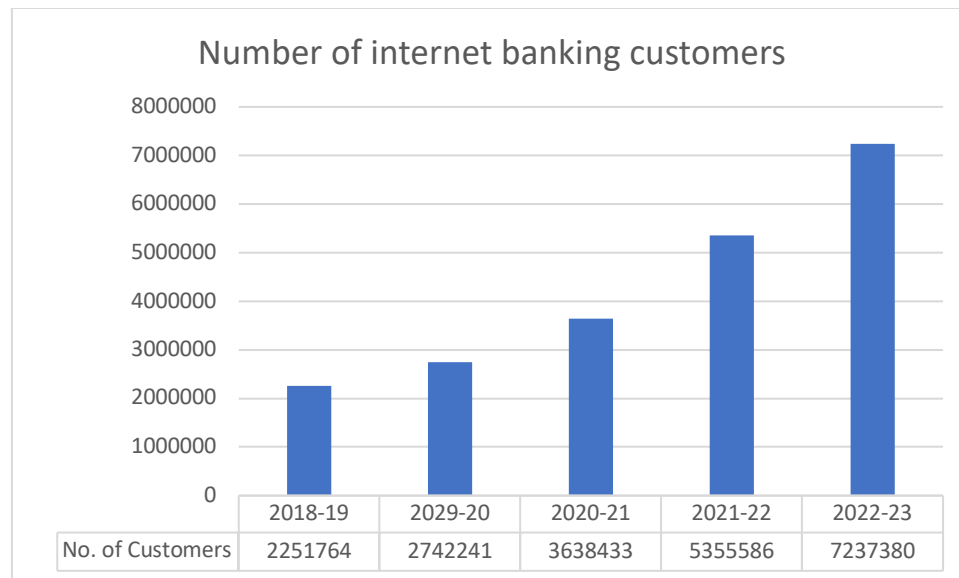


This bar chart shows the amount of all credit, debit and prepaid card transactions in Bangladesh over the financial years 2018-19 to 2022-23. In 2018-19 the amount of card transactions was 171462.2 crore taka. Every year there is a growth in the amount of card transactions and in 2022-23 the amount was 492114.1 crore taka which is much higher than 2018-19. So, not only has the number of card transactions increased but also the amount has increased over the years.

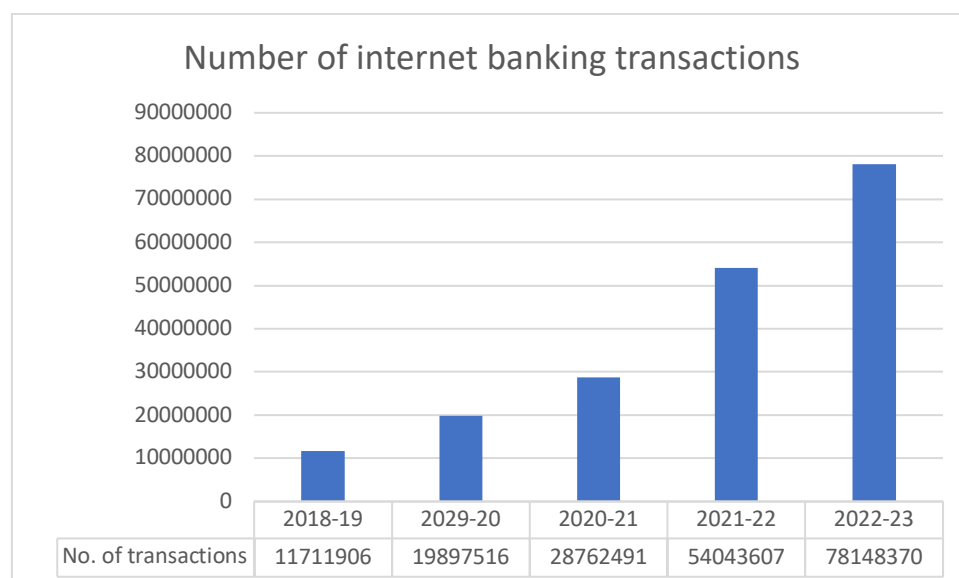
After seeing continuous upward trends in the number of cards, number of card transactions and the transaction amount in Bangladesh, it can be said that usage of card transactions is

continuously increasing in Bangladesh and the people of Bangladesh are steadily adopting the habit of card transactions.

3.2 Internet Banking in Bangladesh

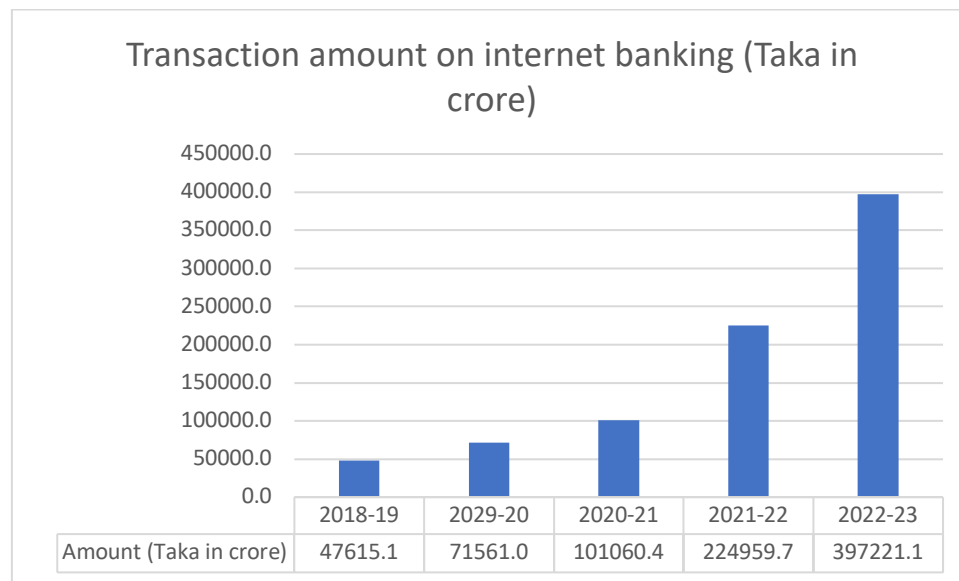


This bar chart is showing the number of customers in internet banking over the financial years 2018-19 to 2022-23. The number of internet banking customers in 2018-19 was 22,51,764 and every year there is a continuous growth in the number of internet banking customers in Bangladesh. In 2022-23 the number of internet banking customers will become 72,37,380 which is much higher than it was in 2018-19.



This bar chart shows the number of internet banking transactions in Bangladesh in the financial years 2018-19 to 2022-23. In 2018 the number of internet banking transactions in Bangladesh was 1,17,11,906 and every year there is a growth in the number of transactions. In 2022-23 the

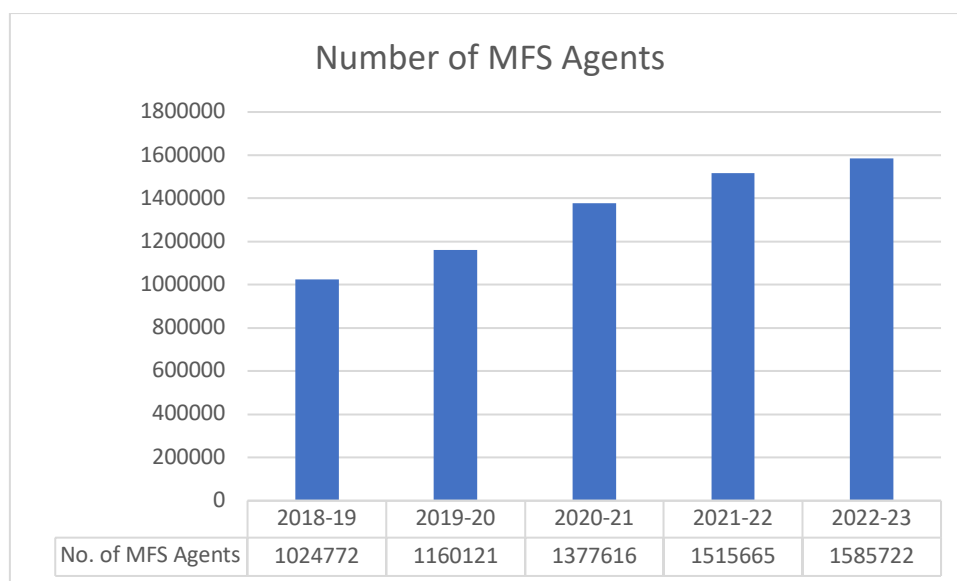
number of internet banking transactions was 7,81,48,370 which is much higher than it was in 2018-19.



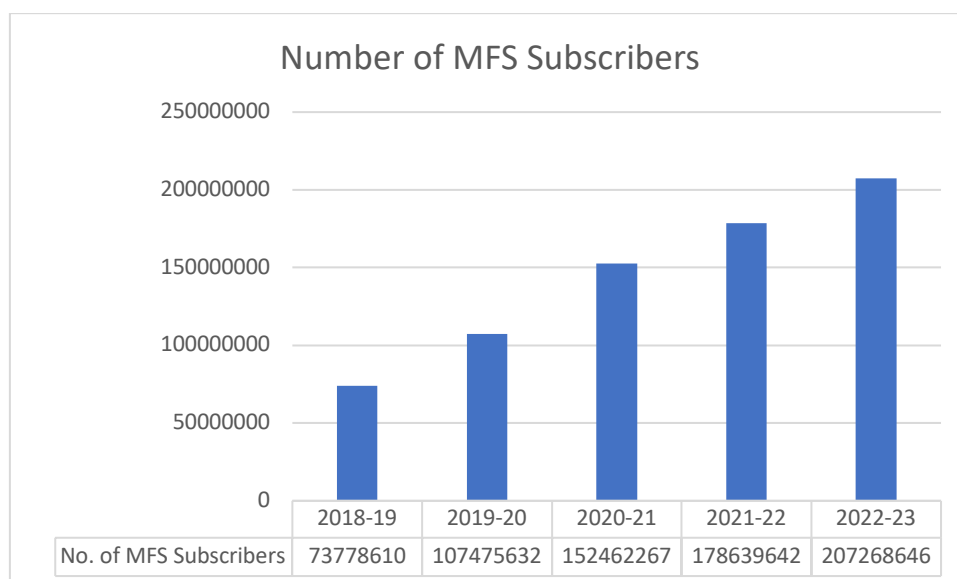
This bar chart is showing the transaction amount on internet banking in Bangladesh in the financial years 2018-19 to 2022-23. In 2018-19 the transaction amount was 47,615.11 crore taka and every year a continuous growth is seen in the transaction amount on internet banking in Bangladesh. The transaction amount in 2022-23 was 3,97,221.1 crore taka which is much higher than it was in 2018-19.

There is an upward trend in the number of customers, number of transactions and transaction amount on the internet banking in Bangladesh. The increasing number of customers indicate that the people of Bangladesh are quickly adopting the habit of internet banking and the increasing number of transactions and transaction amount indicates that the people of Bangladesh have gained faith on internet banking and using it more frequently.

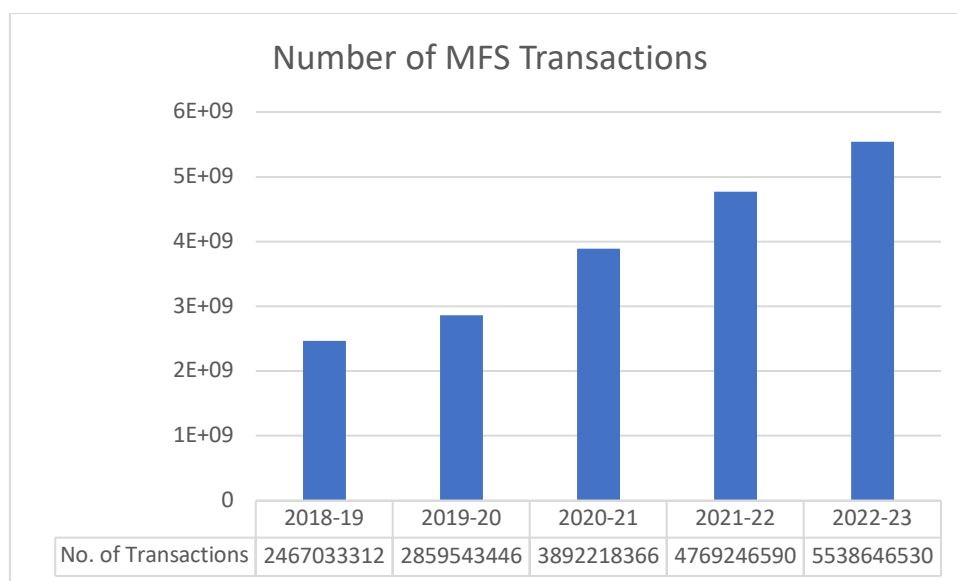
3.3 Mobile Financial Services (MFS) in Bangladesh



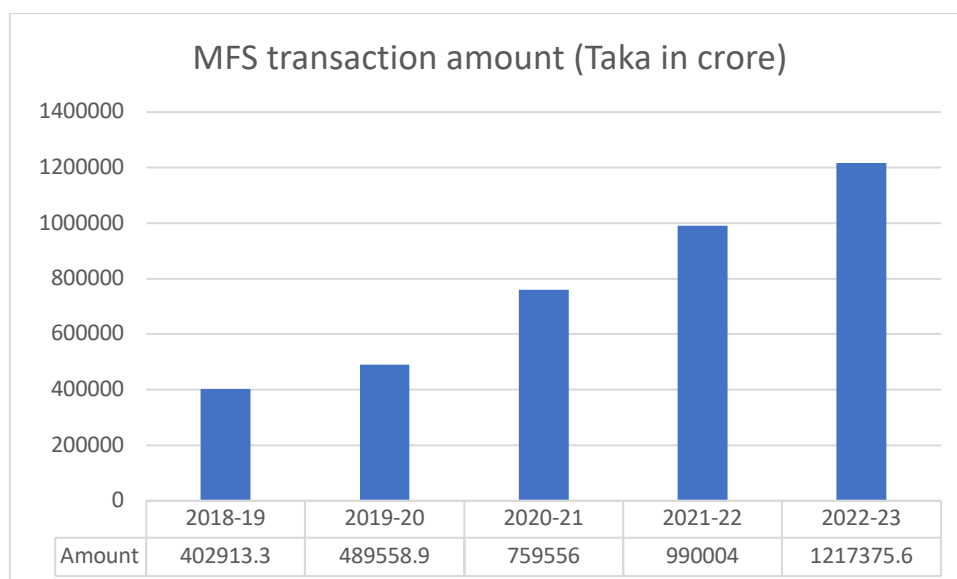
This bar chart is showing the number of MFS agents in Bangladesh over the financial years 2018-19 to 2022-23. In 2018-19 the number of MFS agents in Bangladesh was 10,24,772 and every year the number is continuously increasing. In 2022-23 the number of MFS agents has become 15,85,722 which is much higher than it was in 2018-19.



This bar chart shows the number of MFS subscribers in Bangladesh over the financial years 2018-19 to 2022-23. A continuous growth in the number of MFS subscribers is seen here. In 2018-19 the number was 7,37,78,610 and every year the number is increasing and in 2022-23 the number has become 20,72,68,646.



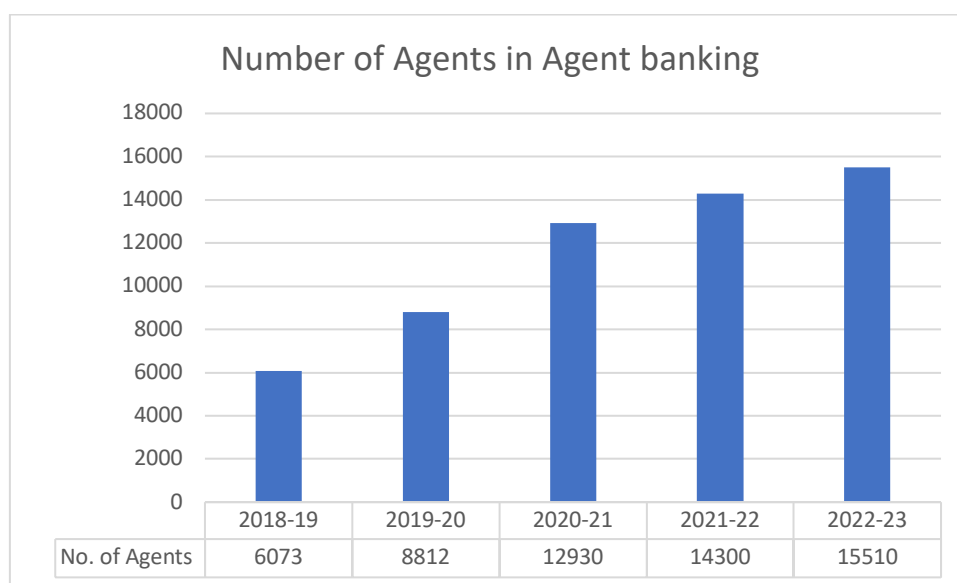
This bar chart is showing the number of transactions in MFS in the financial years 2018-19 to 2022-23. A continuous upward trend is seen here. In 2018-19 the number of MFS transactions was 2,46,70,33,312 and every year it is increasing and in 2022-23 it has become 5,53,86,46,530.



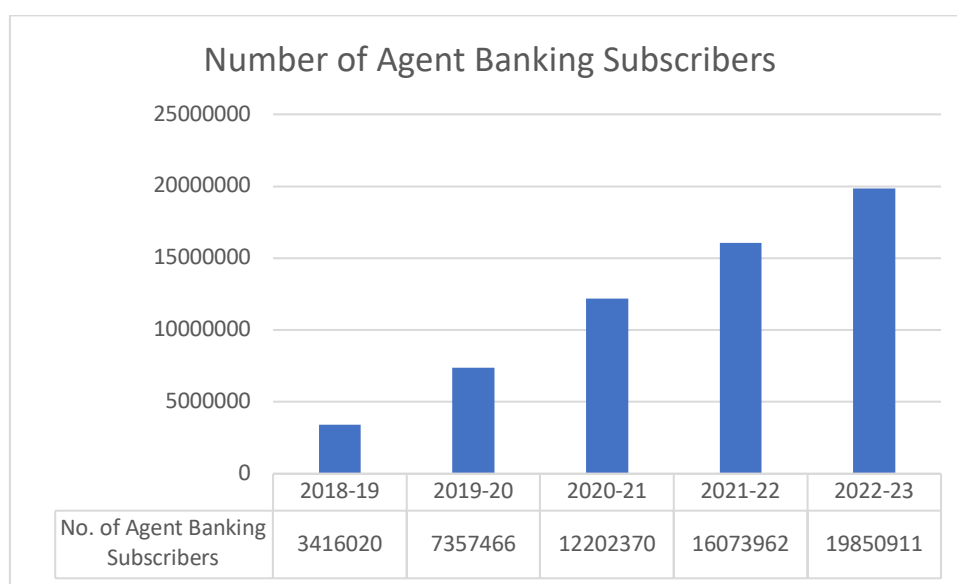
This bar chart is showing the MFS transaction amounts in the financial years 2018-19 to 2022-23. In 2018-19 the transaction amount was 4,02,913.3 crore taka. Every year there is an increase in the amount and in 2022-23 the MFS transaction amount in Bangladesh was 12,17,375.6 crore taka.

Over the years the number of MFS subscribers have increased which indicates an increasing demand. In response to the increasing demand the number of agents has also increased. The increasing number of transactions and transaction amounts indicates that the Bangladeshi people are quickly adopting the habit of using Mobile Financial Services and the demand for MFS is continuously increasing in Bangladesh.

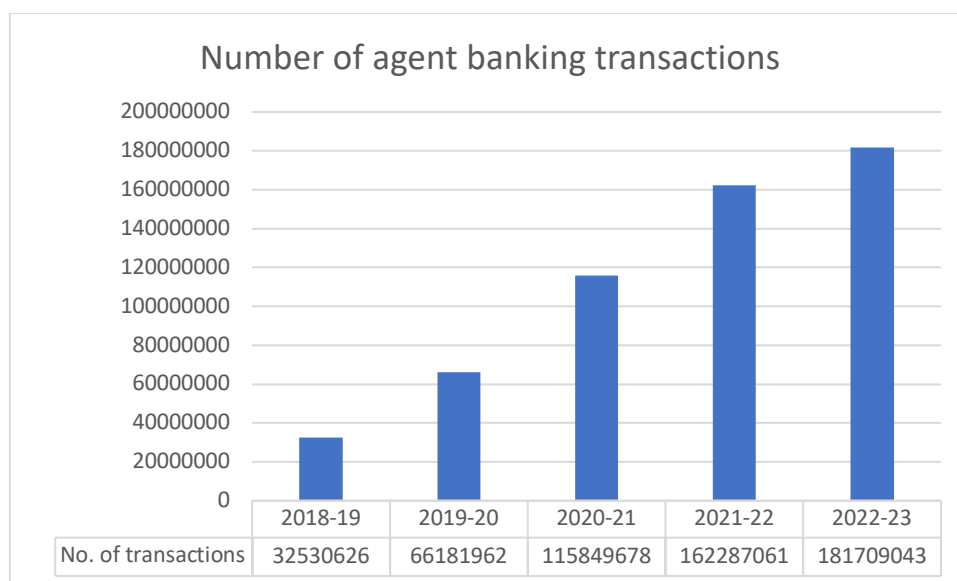
3.4 Agent Banking



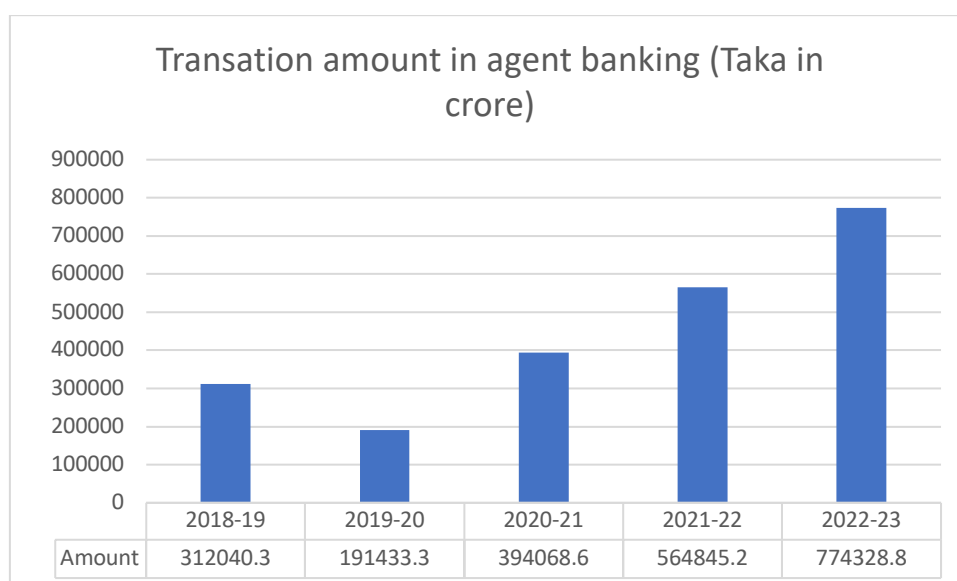
This bar chart shows the number of agents providing the agent banking services in Bangladesh over the financial years 2018-19 to 2022-23. In 2018-19 the number of agents providing the agent banking services in Bangladesh was 6,073 and the number has increased every year. In 2022-23 the number will become 15,510. So, the number of agents has increased in good numbers over the five years.



This bar chart is showing the number of agent banking subscribers in Bangladesh over the financial years 2018-19 to 2022-23. In 2018-19 the number of agent banking subscribers in Bangladesh was 34,16,020 and every year the number has increased. In 2022-23 the number of agent banking subscribers in Bangladesh has become 1,98,50,911. So, the number of agent banking subscribers has increased in huge numbers over the five years.



This bar chart is showing the number of agent banking transactions in Bangladesh over the financial years 2018-19 to 2022-23. In 2018-19 the number of agent banking transactions in Bangladesh was 3,25,30,626 and every year the number has increased. In 2022-23 the number has become 18,17,09,043 which is much higher than it was in 2018-19.

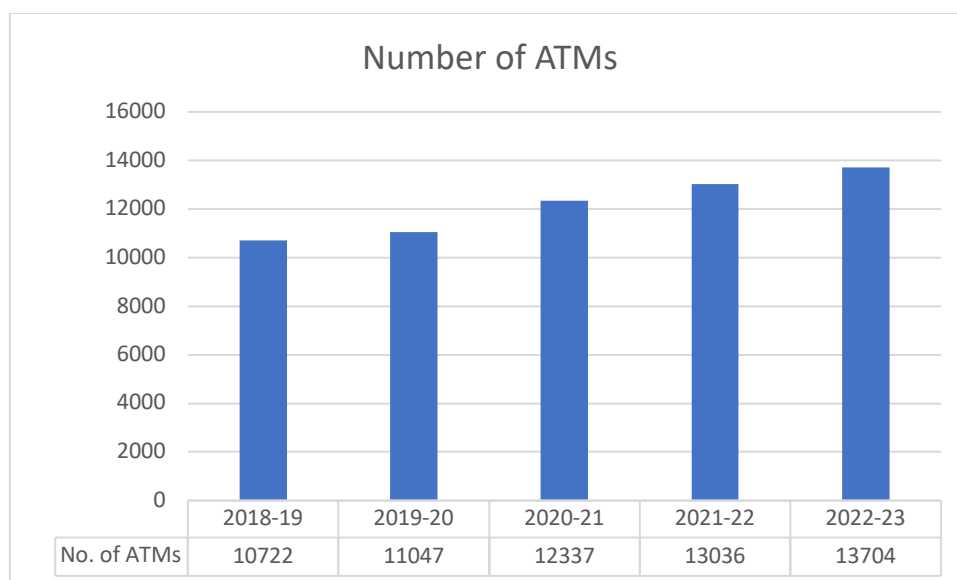


This bar chart is showing the transaction amount through agent banking in Bangladesh over the financial years 2018-19 to 2022-23. In 2018-19 the transaction amount through agent banking in Bangladesh was 3,12,040.3 crore. In 2019-20 the transaction amount has decreased and become 1,91,433.3 crore. The reason for this decline in transaction amount could be bad economic conditions due to the covid-19 pandemic. Maybe because of the pandemic situation no transactions of large amounts were taking place. In 2020-21 it bounced back and became 3,94,068.6 crore taka and from here on a continuous growth is seen. In 2022-23 the transaction amount through agent banking was 7,74,328.8 crore taka.

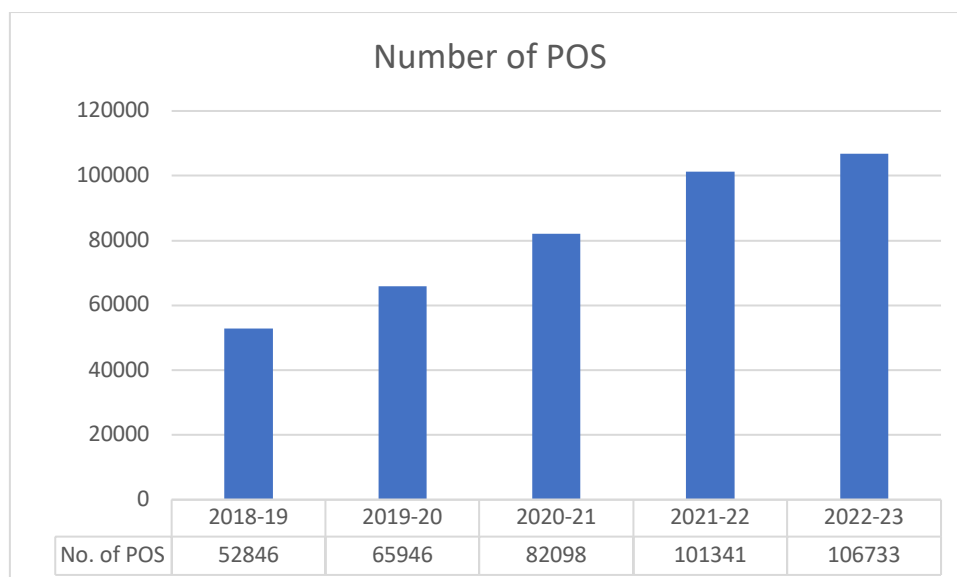
The number of agent banking subscribers in Bangladesh has increased over the years and to fulfil the increased demand the number of agents has also increased. Though the transaction amount has declined in 2019-20 but it is because of the covid-19 pandemic situation things got

normal the transaction amount has increased again. So, it can be said that agent banking is continuously growing in Bangladesh.

3.5 ATMs and POS in Bangladesh



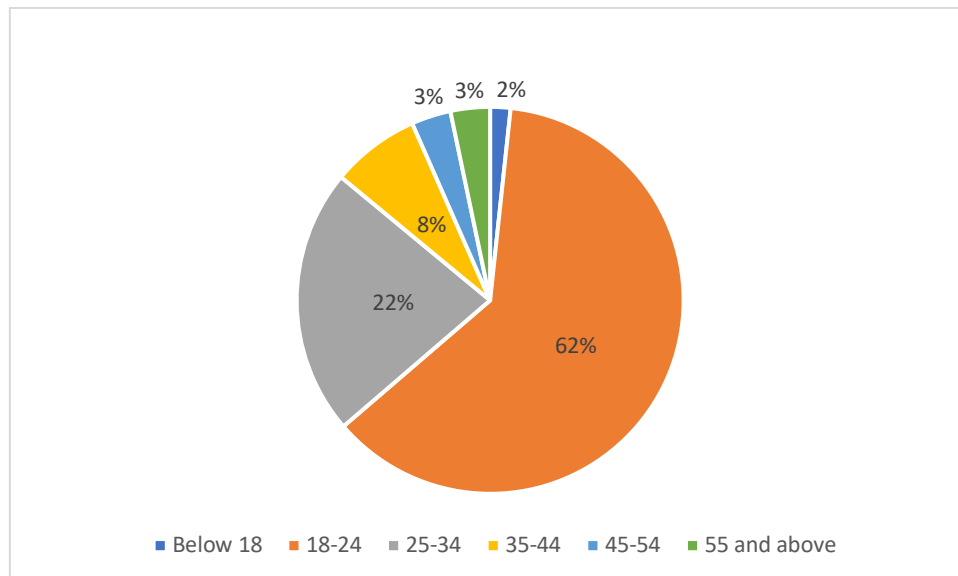
This bar chart is showing the number of ATMs in Bangladesh over the financial years 2018-19 to 2022-23. In 2018-19 the number of ATMs in Bangladesh was 10,722 and over the years the number has increased. In 2022-23 the total number of ATMs will be 13,704. So, over the five years 2,982 new ATMs have been installed.



This bar chart shows the number of POS in Bangladesh over the financial years 2018-19 to 2022-23. In 2018-19 there were 52,846 POS in Bangladesh and every year the number of POS has increased in Bangladesh. In 2022-23 there were 106,733 POS in Bangladesh. So, over the years the number of POS has increased in Bangladesh.

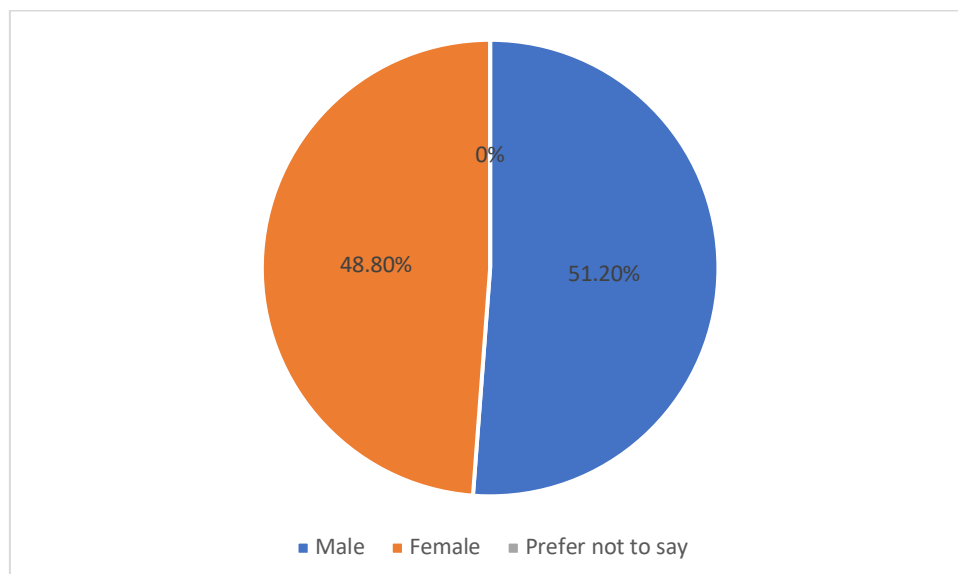
4.0 Survey Analysis

Q-1: Age



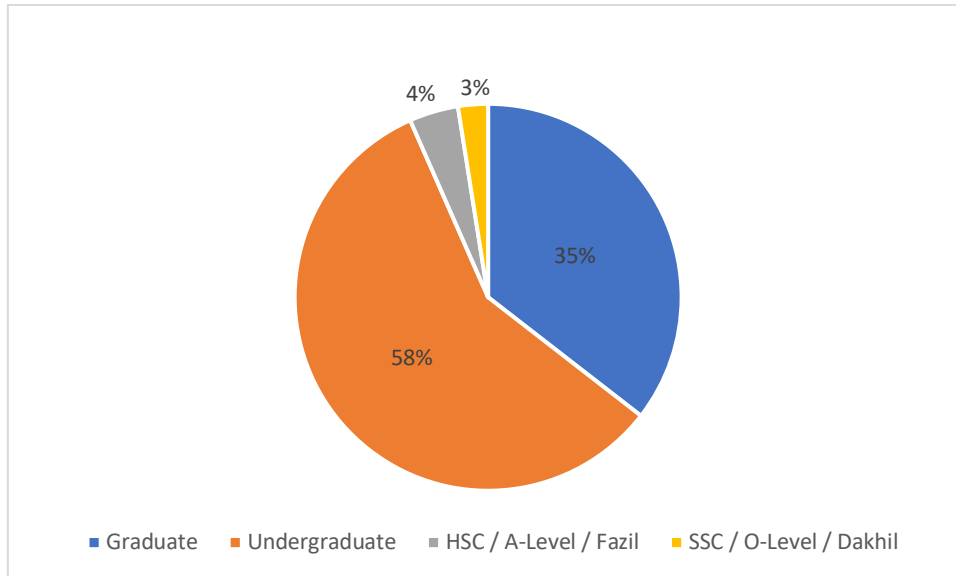
Here 6 categories of age group have been considered. The highest number of responses were received from the age group 18-24 which is 62%. The second highest responses were received from the age group 22-34 which is 22%. 8% responses were received from the age group 35-44. From both 45-54 and 55 and above age groups 3% response was received respectively. And the least number of responses were received from the age group below 18 which is 2%.

Q-2: Gender



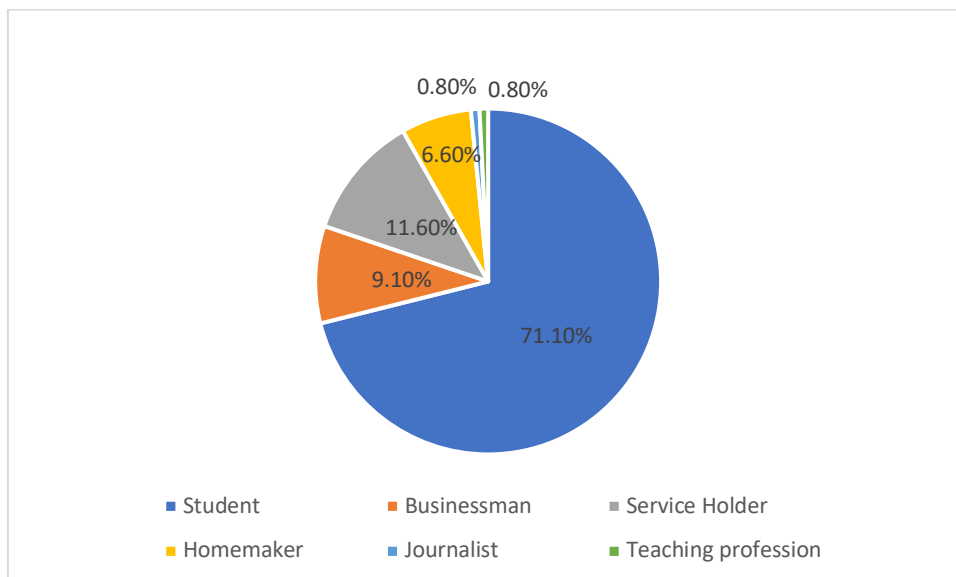
Responses are collected from both male and females. 51% of the responses have been received from male and 49% have been received from females.

Q-3: Education



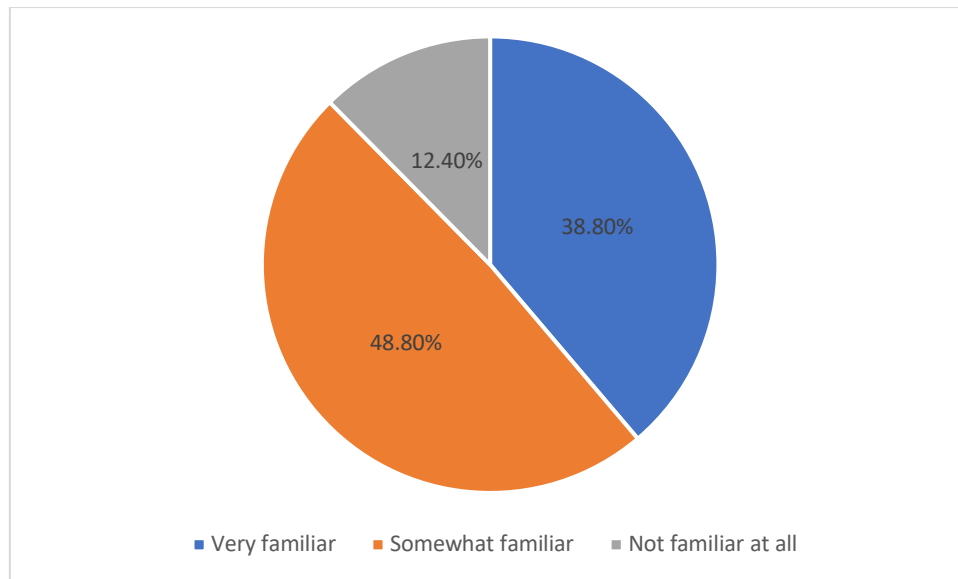
The highest number of respondents are the undergraduate students, they are 58% of the total respondents. The second highest respondents of the survey are graduates, they are 35% of the total respondents. 4% responses have been received from HSC / A-Level / Fazil students and 3% responses have been received from SSC / O-Level / Dakhil students.

Q-4: Occupation



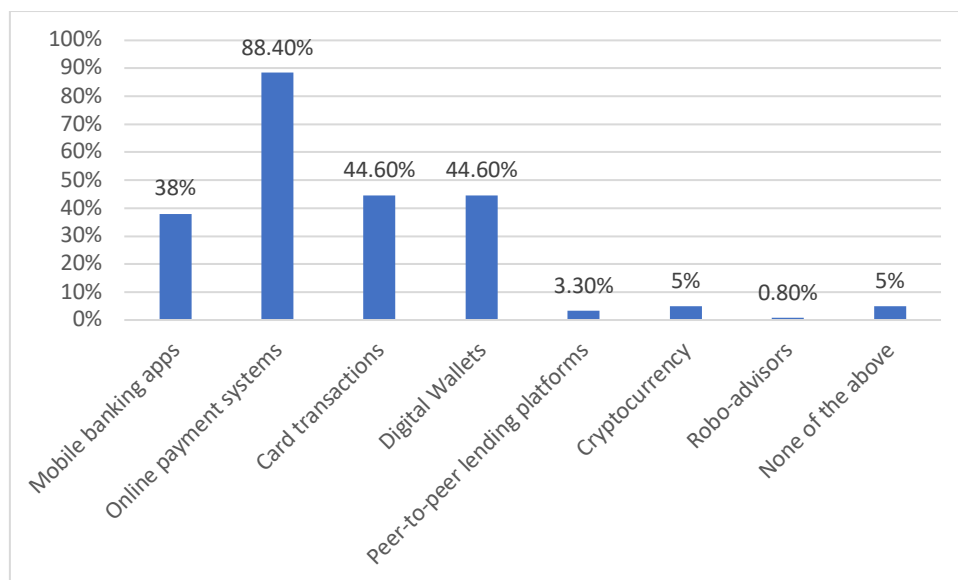
Responses have been received from people of different professions. The highest responses have been received from the students, which is 71.10%. The second highest respondents are the service holders, they are 11.60% of the total respondents. 9.10% of the responses came from the businessmen and 6.60% of the responses came from the homemakers. 0.80% response has been received from the people in the teaching profession and 0.80% from the journalists.

Q-5: How familiar are you with fintech (financial technology)?



This question aims to know the respondent's familiarity with fintech. The respondents were asked how familiar they are with fintech (financial technology). Majority (48.80%) of the respondents answered they are somewhat familiar with fintech. 38.80% respondents answered they are very familiar and 12.40% respondents answered they are not familiar at all with fintech. The overall results show a variety of respondent's familiarity with fintech, with a majority of respondents having at least some idea about the concept of fintech.

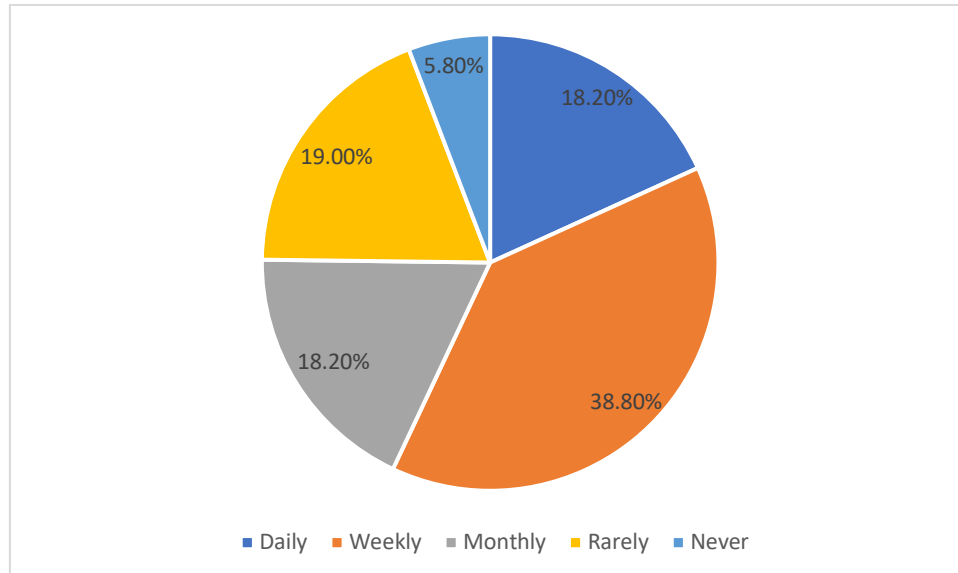
Q-6: Which of the following fintech services have you used? (Select all that apply)



This question was asked to find out what are the fintech services mostly used by the respondents. The respondents were asked which of the following fintech services they have received. The maximum (88.40%) of the respondents have used online payment systems. 44.60% of the respondents have used card transactions and digital wallets. 38% of the respondents have used mobile banking apps. 5% of the respondents have used cryptocurrency. 3.30% of the respondents have used peer-to-peer lending and 0.80% of the respondents have

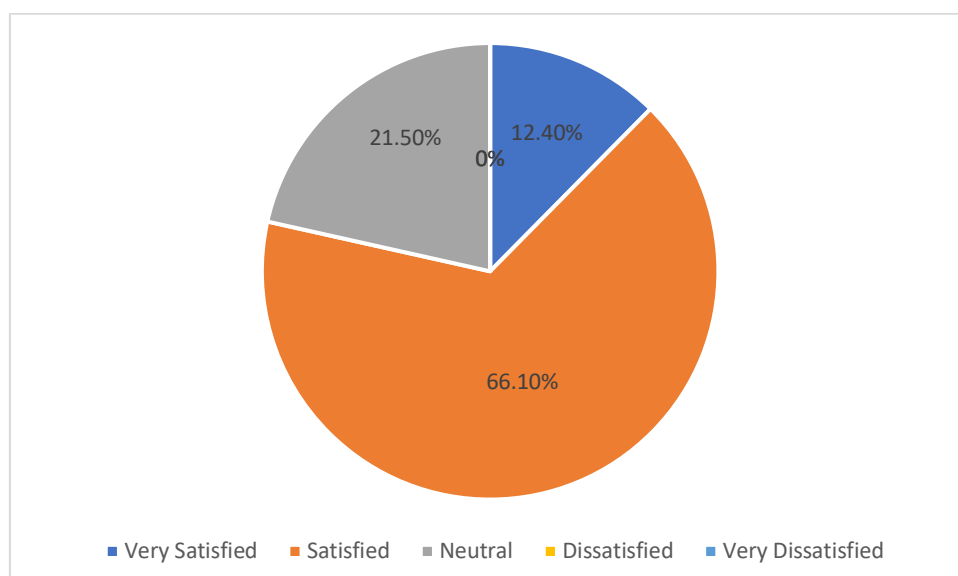
used Robo-advisor. 5% of the respondents have not used any of the mentioned fintech services. So, the results show that online payments, card transactions, digital wallets and mobile banking apps are the most used fintech services by the respondents.

Q-7: How often do you use fintech services?



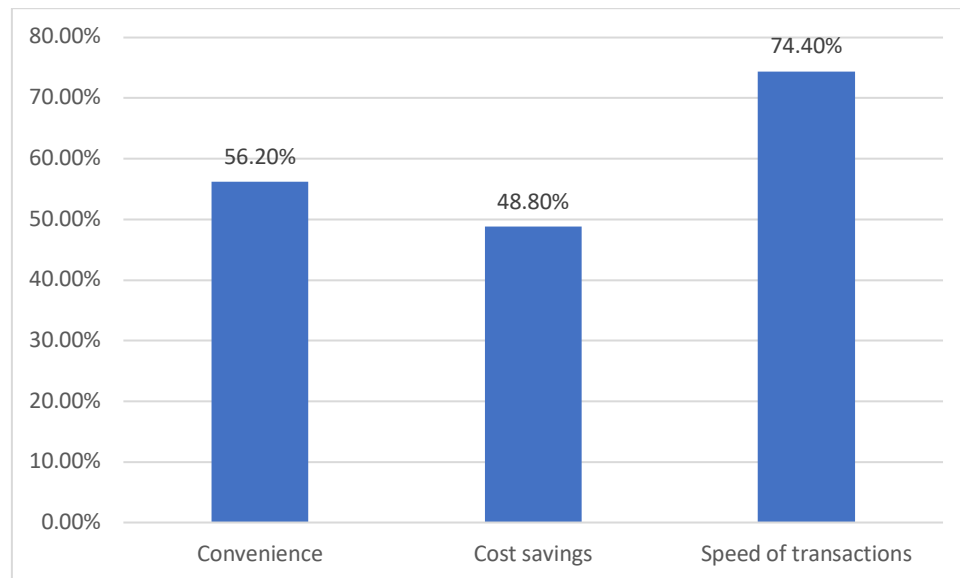
This question was asked to know the frequency level of using fintech services by the respondents. The respondents were asked how often they use fintech services. The majority (38.80%) of the respondents said they use fintech services weekly. 18.20% of the respondents said they use fintech services monthly, 5.80% of the respondents said daily and 19% of the respondents said they rarely use fintech services. Surprisingly 18.20% of the respondents said they have never used fintech services. Looking at all the responses it is clear that a maximum of the respondents have used fintech services. Majority of the respondents are using fintech services on a weekly basis which indicates that fintech plays a regular role in their financial activities.

Q-8: How do you rate your overall experience with fintech services?



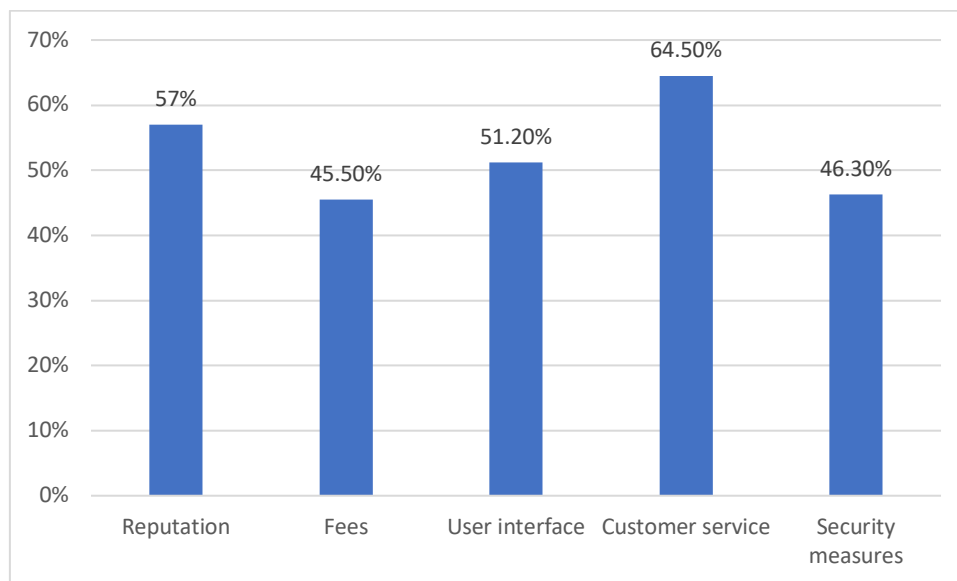
This question was asked to know the satisfaction level of the respondents using fintech services. The respondents were asked to rate their overall experience with fintech services. Majority of the respondents (66.10%) said they are satisfied with fintech services. 12.40% of the respondents said they were very satisfied and 21.50% of the respondents were neutral. None of the respondents said they are dissatisfied or very dissatisfied with fintech services. As most of the respondents are satisfied this reflects their positive attitude towards fintech services.

Q-9: What are the primary benefits you see in using fintech services?



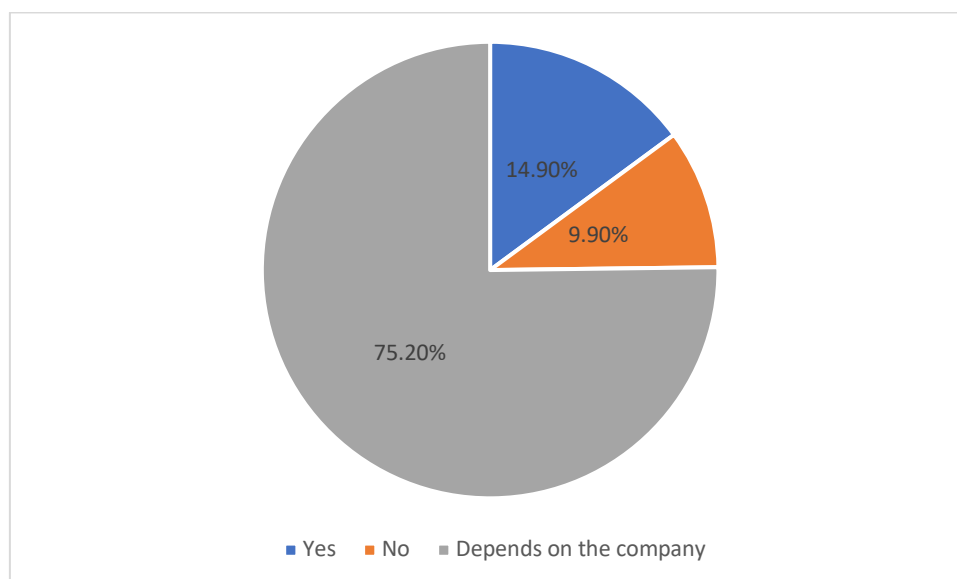
The respondents were asked what are the primary benefits they see in using fintech services. Maximum (74.40%) of the respondents think that speed of transaction is one of the primary benefits of using fintech services. 56.20% of the respondents think that one of the primary benefits of using fintech services is convenience. 48.80% of the respondents think cost savings is one the primary benefits in using fintech services. These results indicate that fintech services are efficient, easy to access and also cost effective.

Q-10: What factors do you consider when choosing a fintech service provider?



This question was asked to find out what the respondents look for while choosing a fintech company. The respondents were asked what factors they consider when choosing a fintech service provider. Majority (64.50%) of the respondents consider the customer service of the fintech service provider. 57% of the respondents consider the reputation, 51.20% of the respondents consider the user interface, 46.30% of the respondents consider the security measures and 45.50% of the respondents consider the fees when choosing a fintech service provider. These results indicate that customer service, reputation, user interface, cost and security are the major factors the respondents consider when choosing a fintech service provider.

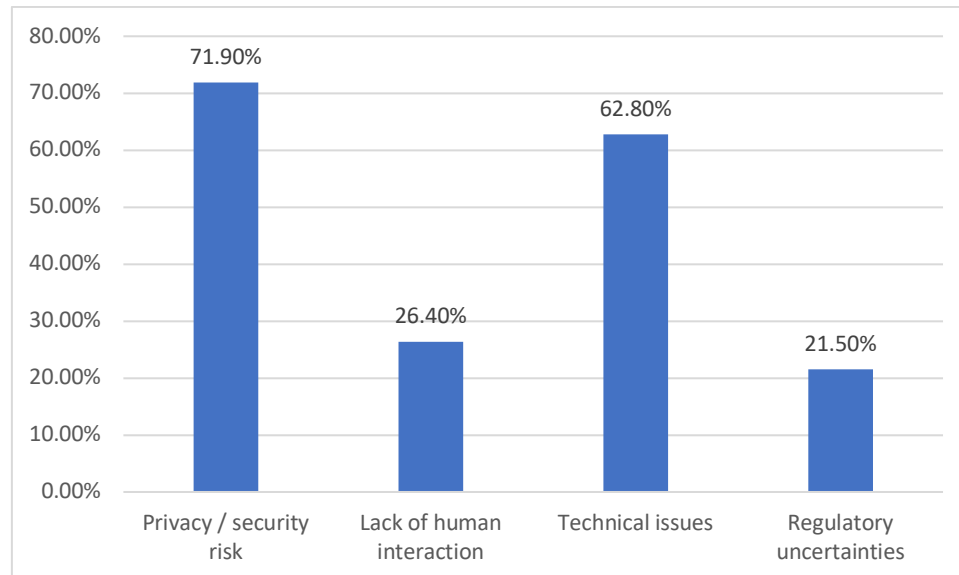
Q-11: Do you trust fintech companies with your personal information?



The respondents were asked whether they trust fintech companies with their personal information. Majority (75.20%) of the respondents said the trust issue depends on the company. 14.90% of the respondents said they trust fintech companies with their personal information

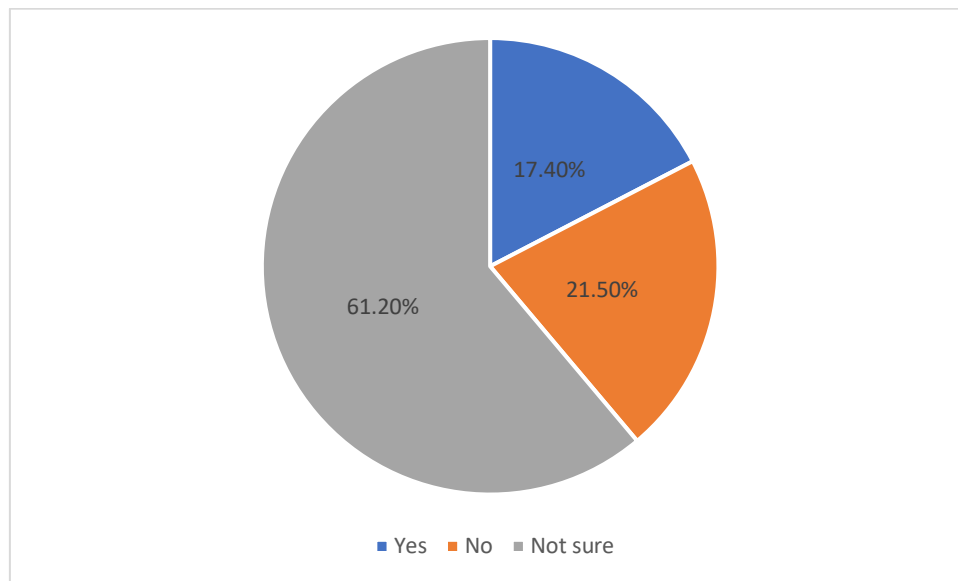
and 9.90% of the respondents said they don't trust fintech companies with their personal information. The responses indicate that the majority of the respondents are cautious and prefer to evaluate the fintech companies before they trust them with their personal information.

Q-12: What are the main concerns you have about using fintech services?



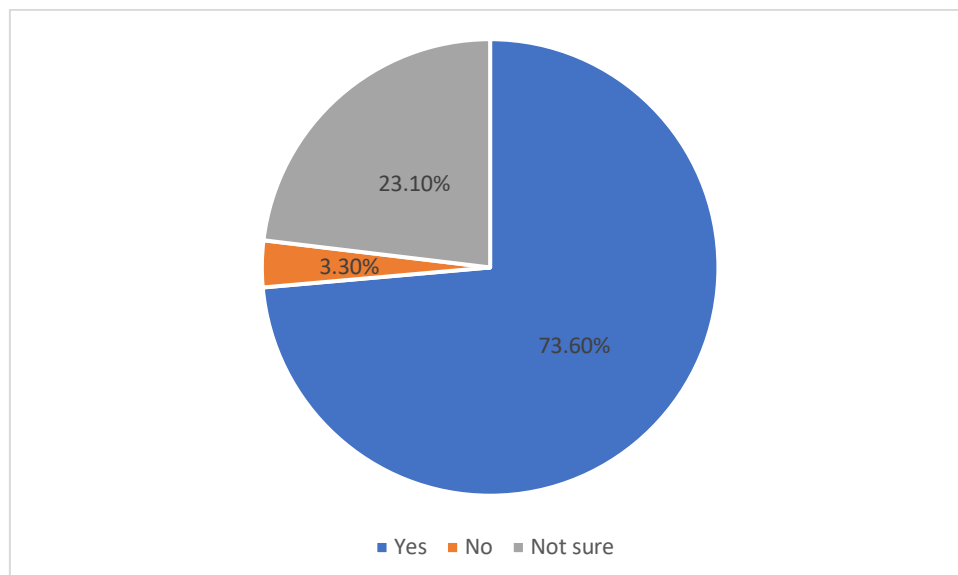
This question was asked to find out the respondent's major concerns about using fintech services. The respondents were asked about their main concerns in using fintech services. Maximum (71.90%) of the respondents think of privacy and security risk as one of the main concerns in using fintech services. 62.80% of the respondents think of technical issues, 26.40% of the respondents think of lack of interaction and 21.50% of the respondents think of regulatory uncertainties as one of the main concerns in using fintech services. The responses indicate that privacy / security risk and technical issues are the major concerns of the respondents about using fintech services. While respondents showed comparatively less concerns about regulatory uncertainties and lack of human interaction, still these are the major concerns for some of the individuals.

Q-13: Would you be comfortable using a Robo-advisor for investment advice?



The respondents were asked whether they would be comfortable using a Robo-advisor for investment advice. Majority (61.20%) of the respondents said they are not sure about it. 17.40% of the respondents said they would be comfortable and 21.50% of the respondents said they wouldn't be comfortable using a Robo-advisor for investment decision making. The responses indicate that the majority of the respondents don't have a clear idea about Robo-advisor. So, further knowledge and awareness building among people about automated investment services are needed.

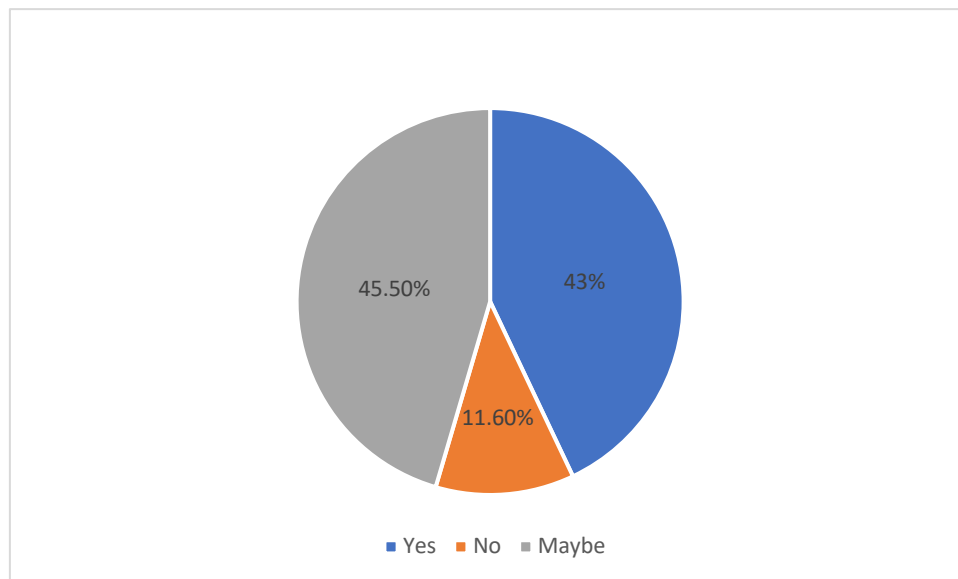
Q-14: Do you think fintech will make financial services more accessible to everyone?



The respondents were asked to share their thoughts about whether fintech will make financial services more accessible to everyone. The majority (73.60%) of the respondents said yes, fintech will make financial services accessible to everyone. 23.10% of the respondents are not sure about it. A small minority (3.30%) of the respondents responded negatively to this.

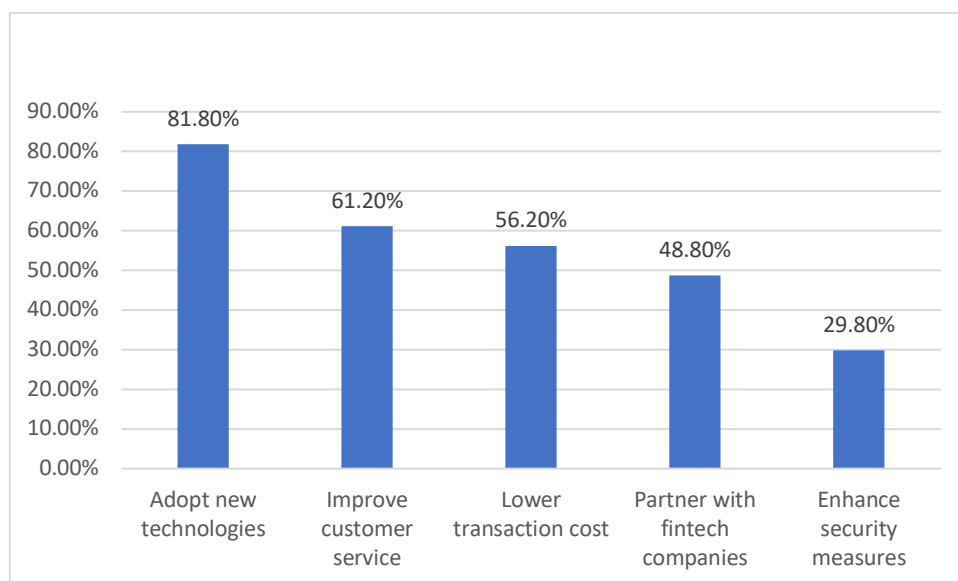
With the majority of the respondents sharing their optimistic view point it can be said that fintech will make financial services more available to everyone.

Q-15: Do you think traditional banks will be replaced by fintech companies in the future?



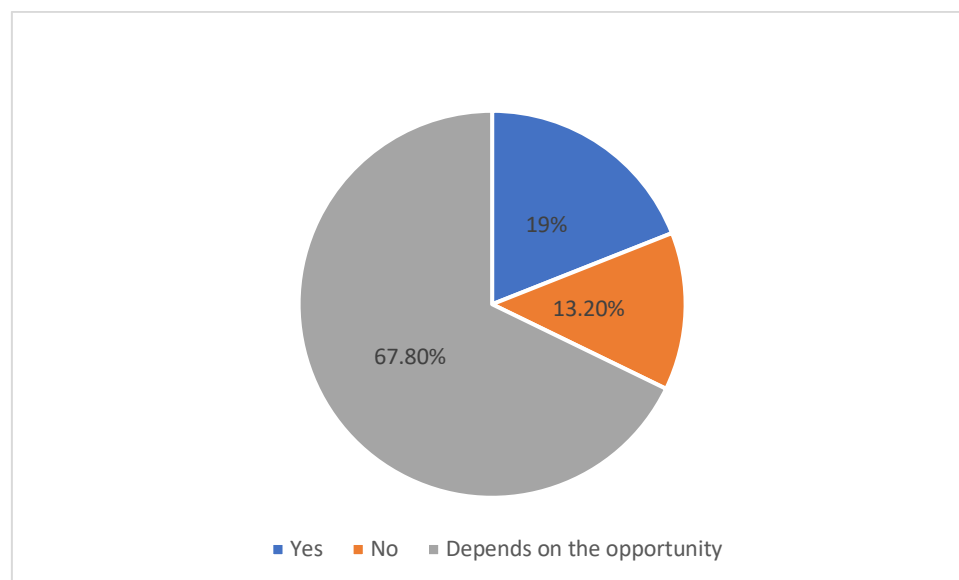
The respondents were asked whether they think traditional banks will be replaced by fintech companies in the future. Majority (45.50%) of the respondents expressed uncertainty regarding the topic. A sustainable portion (43%) of the respondents think that traditional banks will be replaced by fintech companies in the future. This viewpoint reflects the confidence in the disruptive potential of fintech. While a minority (11.60%) of the respondents think the opposite. With the majority of the respondents expressing uncertainty and a sustainable portion of the respondents showing confidence in the disruptive potential of fintech it can be said that fintech companies have huge potential to replace traditional banks in the future.

Q-16: What should traditional banks do to remain competitive in the face of fintech innovations?



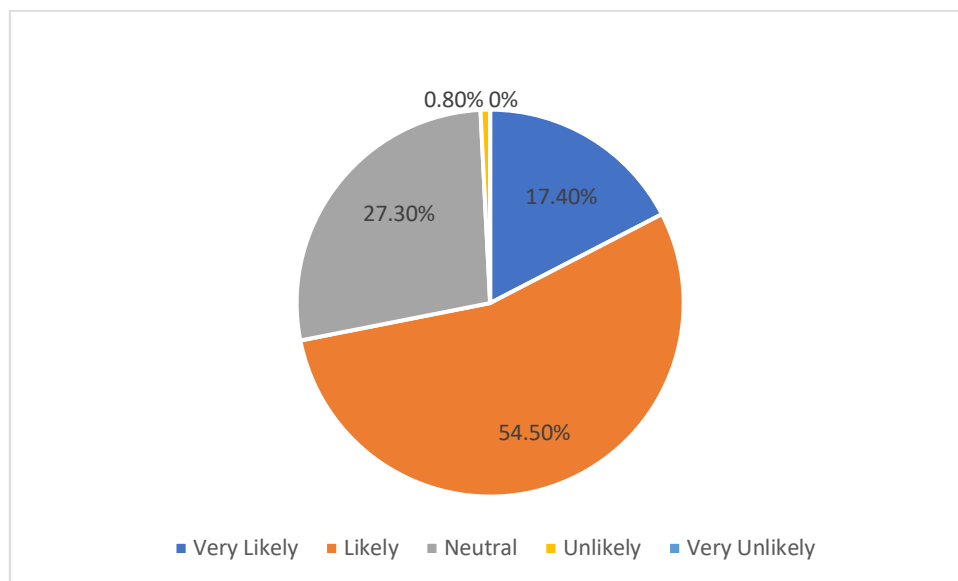
The respondents were asked what traditional banks should do to remain competitive in the face of fintech innovations. Majority (81.80%) of the respondents believe that traditional banks should adopt new technology to remain competitive in the face of fintech innovation. This indicates that the respondents recognize the importance of technological innovations to meet the enhancing demand of the customers in the face of fintech innovations. A sustainable portion (61.20%) of the respondents said they should improve customer service. This signifies the importance of differentiating traditional banks to fintech companies by improving customer service. 56.20% of the respondents said they should lower transaction cost. This indicates the importance of lowering the price to stay competitive in the face of fintech innovations. 48.80% of the respondents said traditional banks should partner with fintech companies to remain competitive in the face of fintech innovations. Comparatively lower portion (29.80%) of the respondents think traditional banks should enhance the security measures. This signifies the importance of cybersecurity and data protection in traditional banks to maintain trust of the customers in face of fintech innovations.

Q-17: Would you consider investing in a fintech startup?



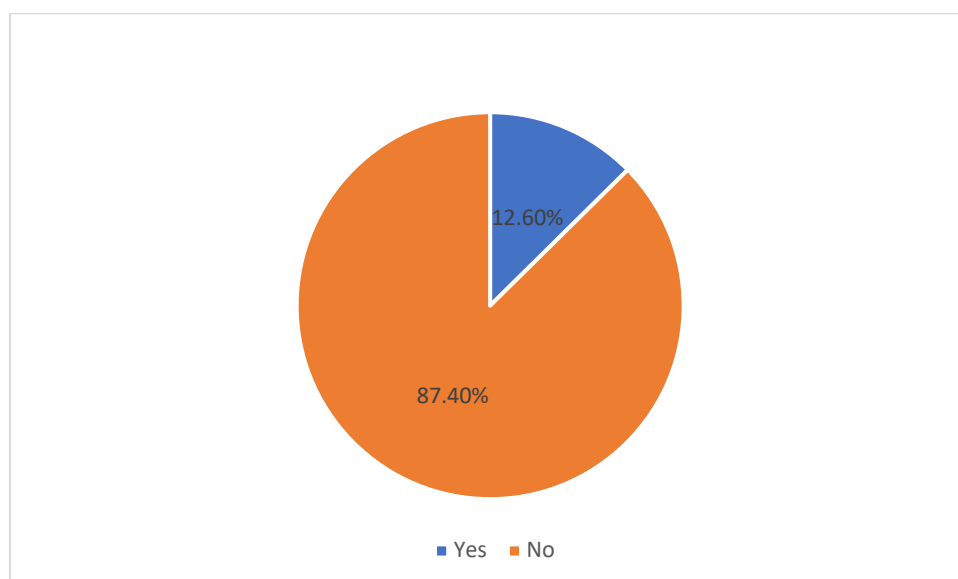
The respondents were asked whether they would consider investing in a fintech startup. The majority (67.80%) of the respondents said they will consider it based on the opportunity presented. 19% of the respondents showed interest in investing in fintech startups. While the minority (13.20%) of the respondents said they would not consider investing in a fintech startup. This response may come because of the respondent's tendency of risk aversion or unfamiliarity with the fintech industry. However, the majority of the respondents are open to considering investment in fintech startups but they are cautious and will evaluate all the opportunities presented.

Q-18: how likely are you to recommend fintech services to others?



The respondents were asked how likely they are to recommend fintech services to others. The majority (54.50%) of the respondents are likely to recommend fintech services to others. Most likely these respondents have a positive experience using fintech services and they are willing to share their positive experience with others. 27.30% of the respondents have expressed a neutral viewpoint about recommending fintech services to others. These people are neither interested in promoting or discouraging the use of fintech to others. A smaller portion (17.40%) of the respondents were very likely to recommend fintech services to others. only a negligible portion (0.80%) of the respondents were unlikely to recommend fintech services to others. The overall responses indicate a positive attitude of the respondents to recommend fintech services to others.

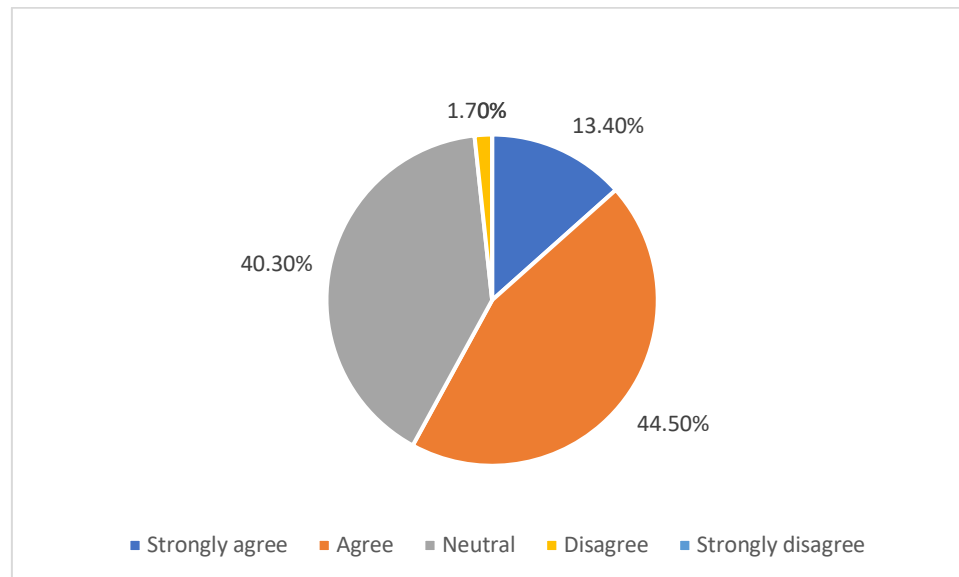
Q-19: Have you ever invested in cryptocurrency?



The respondents were asked whether they have ever invested in cryptocurrency. The majority (87.40%) of the respondents said they have never invested in cryptocurrency. Only a minority

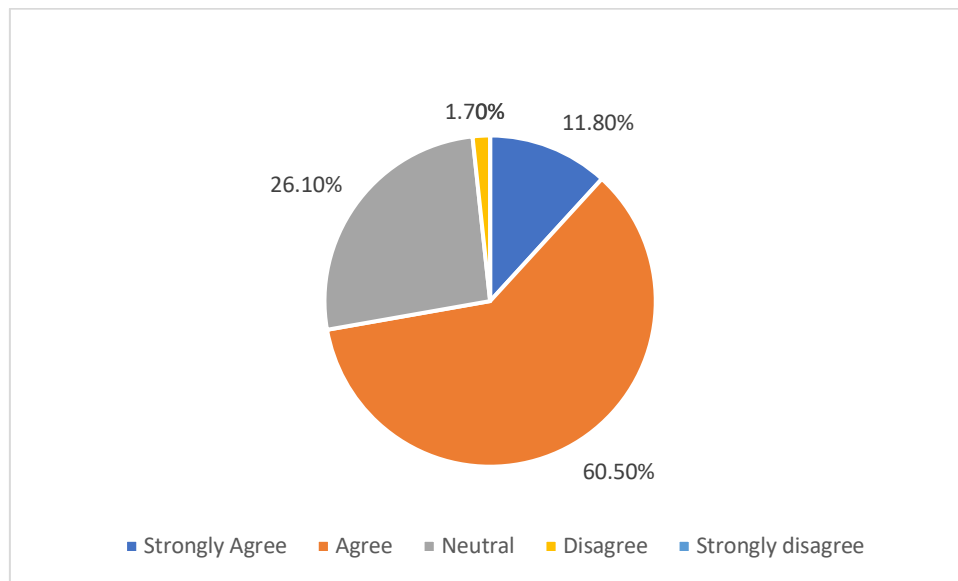
(12.60%) of the respondents have invested in cryptocurrency. This is maybe because cryptocurrency investment is not a common investment choice to the respondents or because of other factors such as risk aversion, unfamiliarity or personal preferences.

Q-20: Fintech companies can provide improved services and products compared to traditional banks



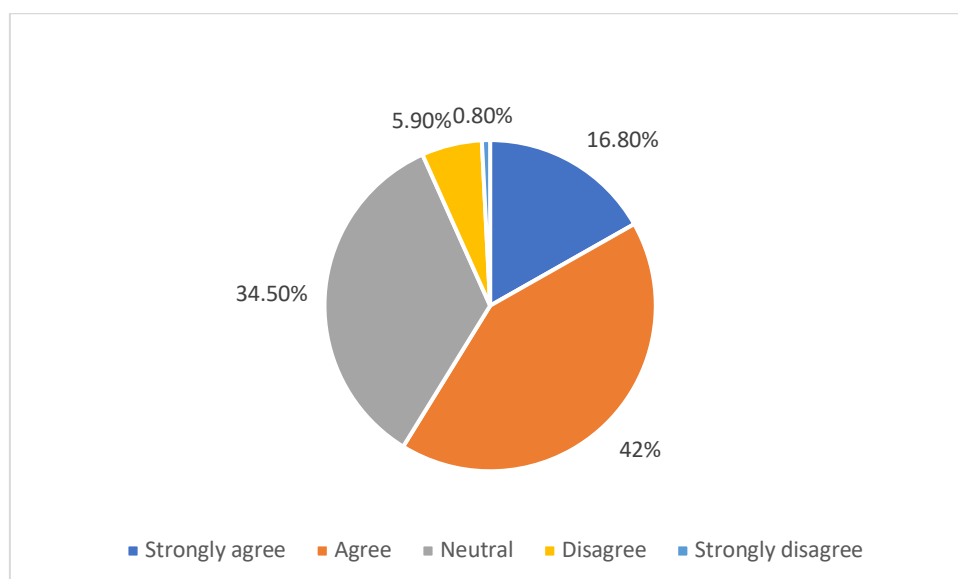
This question aims to identify respondent's perception about services and products offered by fintech companies. Majority (44.50%) of the respondents agreed that fintech companies can provide improved services and products compared to traditional banks. A significant portion (40.30%) of the respondents were neutral, indicating that they were unsure or didn't have any strong opinion. Comparatively smaller portion (13.40%) of the respondents strongly agreed that fintech companies can provide improved services and products compared to traditional banks. A negligible portion (1.70%) of the respondents disagreed and none of the respondents strongly disagreed to this. The overall responses signifies the positive perception of the respondents about the potential of fintech companies to provide improved services and products compared to traditional banks.

Q-21: Digitalization restructures jobs and often creates new job



This question seeks the opinion of the respondents about the impact of digitalization on job market. Majority (60.50%) of the respondents agreed that digitalization restructures jobs and often creates new jobs. These respondents see digitalization as an opportunity that alters jobs and often creates new job opportunities. A significant portion (26.10%) of the respondents were neutral, it indicates that they were unsure and didn't have any strong opinion. A comparatively smaller portion (11.80%) of the respondents strongly agreed to this, it signifies their confidence about the new job opportunities created by digitalization. A negligible portion (1.70%) of the respondents disagreed to this and none of the respondents strongly disagreed to this. The overall response indicates that the respondents view digitalization as an opportunity that is restructuring and creating new job opportunities.

Q-22: Artificial Intelligence (AI) can replace a wide range of employees in traditional banks.



This question seeks respondents' view on the potential of Artificial Intelligence (AI) to replace a wide range of employees in traditional banks. Majority (42%) of the respondents agreed that

Artificial Intelligence can replace a wide range of employees in traditional banks. A significant portion (34.50%) of the respondents were neutral, it indicates that they do not have any strong opinion regarding this topic. A comparatively smaller portion (16.80%) of the respondents strongly agreed to this, it indicates that they perceive AI as highly disruptive in traditional banking roles. Another smaller portion (5.90%) of the respondents disagreed to this, they don't believe that AI can replace a wide range of employees in traditional banks. A negligible portion (0.80%) of the respondents strongly disagreed with this. Different opinions came from different respondents. With a significant portion of the respondents agreeing to this reflects their believe in the potential of AI to replace a wide range of jobs in traditional banks.

5.0 Findings and Recommendations

5.1 Findings of the study

After analyzing the last 5 years' data from Bangladesh bank monthly economic trends of e-banking and conducting the survey analysis some findings have come up. Major findings are mentioned here below:

- There has been a continuous upward trend in the card transactions in Bangladesh from 2018-19 to 2022-23. The number of debit, credit and prepaid cards, number of card transactions as well as transaction amount have increased continuously. This reflects the adoption of card transactions among Bangladeshi people.
- Internet banking has grown rapidly in Bangladesh from 2018-19 to 2022-23. The number of internet banking customers, transactions and transaction amount have continuously increased over the 5 years. This reflects mobile banking has gained the trust and reliance of Bangladeshi people.
- The number of MFS agents, subscribers, transactions and transaction amount have increased over the last 5 years, reflecting the increased adoption and usage of MFS.
- There has been a steady increase in the number of agents and subscribers in agent banking. Apart from the temporary decline in 2019-20 due to the COVID-19 pandemic, the transaction amounts have increased over the 5 years.
- The number of ATMs and POS has increased steadily from 2018-19 to 2022-23. Indicates people's need for more convenient and greater financial services.
- Most of the respondents of the survey are familiar with fintech and fintech plays a vital role in their financial activities. Online payment systems, card transactions, digital wallets and mobile banking apps are the most used fintech services by the respondents.
- Respondents rated their overall experience with fintech services positively and mentioned that speed of transactions, convenience and cost savings are the primary benefits they see in using fintech services.
- Respondents prefer to evaluate fintech companies before trusting them with their personal information. Customer service, reputation, user interface, cost and security are the major factors they consider when choosing a fintech company.
- Privacy / security risk and technical issues are the major concerns of the respondents about using fintech services.
- Most of the respondents believe that fintech will make financial services more accessible and probably replace traditional banks in future.

- Traditional banks need to adopt new technologies to remain competitive in the face of fintech innovations.
- Most of the respondents are open to investing in fintech start-ups but they are cautious and want to make their investment decisions based on the opportunities presented.
- Most of the respondents believe that fintech companies can provide improved financial services and they have a positive attitude towards recommending fintech services to others.
- Digitalization and AI have the potential to create new jobs and replace certain roles in traditional banking.

5.2 Recommendations

After analyzing the last 5 years' data from Bangladesh bank monthly economic trends of e-banking and conducting the survey analysis, I want to provide some recommendations to both fintech companies and traditional banks.

- The reach of ATMs, POS terminals and agent banking services should be expanded in rural areas to make fintech services more accessible for everyone.
- Fintech companies need to tighten security measures to address customers' concerns about privacy and security.
- Traditional banks should invest in new technologies to remain competitive in the fintech era. Doing partnership with fintech start-ups could be beneficial.
- Both traditional banks and fintech companies should continuously improve customer service to gain customer satisfaction by meeting the increasing expectations of the customers.
- Fintech companies should continuously utilize technologies to continue offering more cost-effective financial services.
- Fintech companies should continuously develop and improve the user interface to enhance overall customer experience with fintech services.
- Supportive regulations should be developed to address the concerns of people regarding fintech services.
- Both fintech companies and traditional banks should develop strong risk management strategies to build trust among the customers by providing safety to customers' funds.
- The awareness of the benefits of fintech services like AI and Robo-advisors should be created among the people.
- People should be encouraged to invest in fintech start-ups by promoting the success stories of fintech start-ups and by informing them about the possible return they can earn from the investment.

6.0 Limitations and Conclusion

6.1 Limitations of the study

There are some limitations in this study which can not be ignored. The major limitations of the study are given below.

- Due to time constraints, it was not possible to illustrate all the factors regarding the topic.
- Lack of experience might impact the study to some extent.
- Most of the responses are from students by which the main purpose of the study might get impacted.
- Limited sample size can affect the representativeness of the findings and limit the ability to generalise to a larger population.

6.2 Conclusion

In conclusion this study explores the potential of fintech innovations in changing the banking and financial sector in Bangladesh. The perception of the people of Bangladesh regarding fintech is positive and the adaptation rate to fintech services is also high, it suggests the huge potential of fintech to transform the financial sector of Bangladesh. The use of various fintech innovations such as card transactions, internet banking, MFS, agent banking are continuously increasing in Bangladesh. Even 10 years back all the people of Bangladesh were totally dependent on traditional banks and other traditional financial institutions for financial services but now most of the people are preferring fintech companies for financial services. Fintech companies are providing improved financial services that are more convenient, less costly and hassle free. Earlier people had to wait for hours at banks to get financial services, now they can get access to a wide range of financial services just by using mobile banking applications. They don't even need to go to the bank for many types of financial services like money transfer, bill payments, sending foreign remittance and so on. They can get easy access to these services just by using their smartphones. Banking institutions are also well aware of the disruptive capability of fintech as a result now many of the banks are also providing mobile banking services and also prioritising the development of other fintech innovations.

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