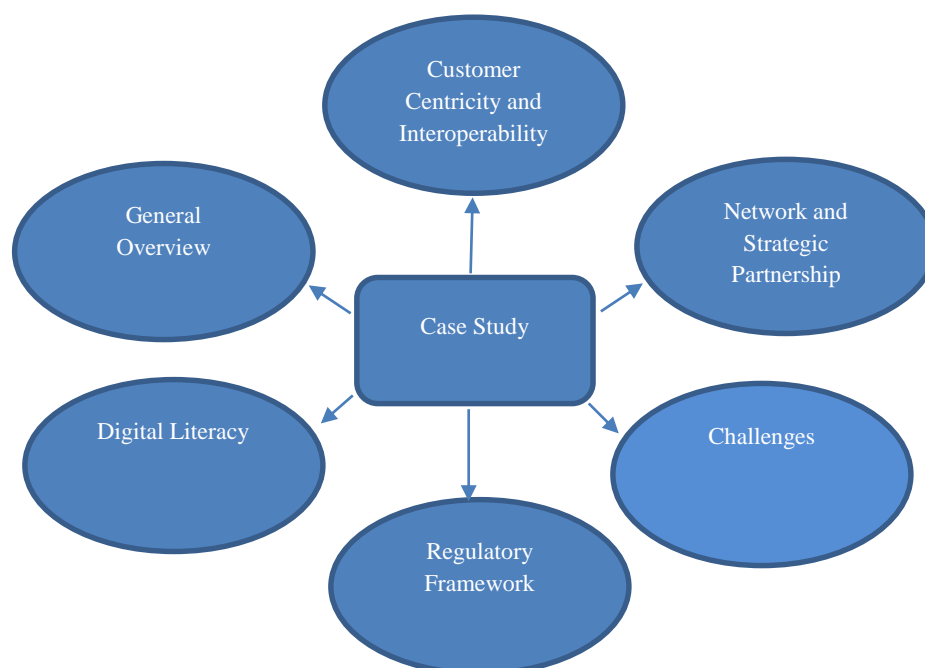


## CHAPTER 6

### Issues in FinTech Eco-system

#### 6.1 Introduction

This chapter deals with determining the factors that impact the supply of FinTech services for fostering financial inclusion. Interview questions were asked to the functionaries of the FinTech service providers working to further financial inclusion. The service providers interviewed include two payment banks (India Post Payment Bank and Fino Payments Bank), two public sector banks (Bank of Baroda and UCO Bank) and two private banks (HDFC Bank and IndusInd Bank). The FinTech service providers were selected on the basis of Judgement Sampling<sup>1</sup>. To study the issues of the FinTech ecosystem, the case study method is used. It will provide crucial insights and qualitative perspectives relating to the level of partnership of the FinTech service providers with the mobile network operators, agent network, determining the factors for the incorporation of digital banking products for financial inclusion, technical complexities, regulatory framework and other issues faced in offering the services in Assam. The case studies are categorised into the 6 sections given below



**Figure 6.1:** Structure of case studies

<sup>1</sup> For details refer to chapter 2 Section 2.4.3

1. General overview: provides brief outline about the FinTech service providers, different states in India where the services are being offered and countries in which products and services are offered including the different mobile technology platforms where the products/services of the FinTech service providers work in.
2. Customer centricity and interoperability: discusses the areas where customer experience is given utmost priority and the manner of interoperability adopted by the FinTech service providers to achieve digital financial inclusion by allowing the customers to easily perform desired transactions.
3. Network and strategic partnership: highlights the partnership between the different FinTech service providers with telecom operators, FinTech start-ups and others for effective operation and efficiently serving the unserved.
4. Challenges: discusses the issues relating to customer complaints, mechanisms to protect the customers from cyber vulnerabilities, barriers faced in operating in the North Eastern region and the impact of the covid-19 crisis on the demand for the products/services.
5. Regulatory Framework: discusses the regulatory approach to be used for FinTech start-ups, Online Dispute Resolution (ODR) to sort out customer disputes and measures taken for awareness regarding Digital Ombudsman Scheme.
6. Digital literacy: measures taken to organize digital literacy programs to boost digital financial inclusion.

## **6.2: Case Studies**

### **6.2.1: India Post Payment Bank (IPPB)**

**6.2.1a. General Overview:** The payment banks are public limited companies registered under the Companies Act of 2013 and licensed under the Banking Regulation Act of 1949. The country's extensive post office network i.e., 156600 out of which 141001 in rural areas and 400000 (IPPB, 2020) postal service providers have been utilized to form a new type of bank called payment bank and to bring down the average distance for availing banking services in the rural hinterlands. Thus, IPPB was established in the year 2018 under the Department of Post, Ministry of Communication. The main aim of IPPB is to enhance accessibility, affordability, ease in banking and building a digital eco-system through linkage with Payment and Settlement Systems like UPI, Immediate Payment Service (IMPS), Government subsidies and Bharat Bill Payment System (BBPS) and works on

different mobile technology platforms such as Unstructured Supplementary Service Data (USSD), android and iOS. IPPB offers its products and services in all the states of India. Compared with the total revenue for the year ended 31<sup>st</sup> March, 2020, the bank's total revenue for the year ended 31<sup>st</sup> March, 2021 has increased by 31.43 percent. However, the net loss stands at 3295 million as of March, 2021 and the bank has not been able to break-even since its launch. The bank has 650 branches and 136197 banking access points in the country of which Assam accounts for 26 branches and 3193 banking access points (IPPB, 2021a) which is higher than other North Eastern states but comparatively lower than the states of Rajasthan, Madhya Pradesh, Gujarat, Maharashtra, Tamil Nadu, Bihar and Odisha. In order to gain insight into the different factors influencing the services of IPPB in Assam, interview questions were asked to the Manager, IPPB Circle Office, Guwahati, Assam.

**6.2.1b Customer Centricity and Interoperability:** IPPB serves with the rationale of shrinking the cost of accessing banking services for last-mile comprehensive financial inclusion. The total number of bank customers of IPPB increased from 23.6 million in March, 2020 to 43.1 million in March, 2021 thereby registering 83.69 percent year-on-year growth (IPPB, 2021a). Among the total number of customers, 48 percent of the total customer base consists of women account holders. As mentioned by the functionary interviewed, the total number of registered customers in Assam is 0.40 million approximately of which about 0.30 million (75 percent) are dwellers of rural areas and about 0.10 million (25 percent) customers reside in urban areas. Furthermore, the average yearly growth rate in the number of users of digital financial services is above 40 percent and the customer retention rate is 70-90 percent based on the operation. The official mentioned that even though the customer base is increasing over the years but seeding of Aadhaar details with the bank account is comparatively lower when juxtaposed with other states of India. As bank account linked to Aadhaar provides an impetus for the inclusion of customers and overcomes the challenge of accessibility, linking Aadhaar details with the bank account is given utmost priority in Assam and other North East states.

**Agent network:** IPPB has a vast agent network to offer products and services. The bank's network includes 136078 banking access points and 174000 doorstep bankers as of the year ended March, 2020 (IPPB, 2020). The current size of the agent network in Assam as informed by the official is approximately 2900 of which, a little less than 3/4<sup>th</sup> of the agent network is in rural areas. Moreover, the facility of doorstep banking has aided in lowering

the distance to the bank branch. The customers can dial 155299 where the pin code will be asked to the customers and the nearest postman will assist in delivering the service to the customer with a charge of Rs. 12 for transactions up to Rs. 10,000. In addition, as of September, 2021 there are no charges applied to avail of the service.

**Interoperability:** The bank intends to overcome the challenge of interoperability by connecting the post office savings bank account of customers with ease in banking through IPPB and has come up with assisted UPI in partnership with National Payments Corporation of India (NPCI), which assists the customers in performing UPI-based transactions without the need of a smartphone. Assisted UPI benefits in seamless onboarding by using a Virtual Payment Address (VPA) for every IPPB customer i.e., mobilenumber@IPPB. In order to send money through assisted UPI, a customer has to provide the VPA of the receiver at the agent point and along with Aadhaar biometric-based authentication, a customer can send and receive money at an agent point without the need for a smartphone.

Agent-level interoperability- The official informed that the Aadhaar Enabled Payment System (AePS) is used for agent-level interoperability. There was a facility termed Domestic Money Transfer, which is currently unavailable. If the account number is not known, the customer can provide the registered mobile number from which account detail is fetched through technology.

Mobile network interoperability- The customers of IPPB can use the product/services across multiple mobile network operators.

Platform level interoperability- Customers with an account in IPPB are able to send and receive money to customers, who may be using a different mobile money platform.

IPPB mobile banking and merchant app provide affordable and simple banking solutions in 13 languages. However, it has not yet developed an artificial intelligence-powered assistant (chatbot/chat assistant) that can help customers ask queries regarding banking-related issues faced by them.

**6.2.1c Network and Strategic Partnership:** IPPB currently does not have any partnerships with telecom operators. However, the bank has invited third-party service providers such as FinTech companies including banks to stimulate their services to suit the needs of the last mile customers using the digital platform (IPPB, 2022). The bank has

launched two insurance products in the year 2019 in partnership with Bajaj Allianz Life Insurance Company Limited (IPPB, 2020). Such tie-ups led to the collection of 54.3 million in life insurance premiums. Besides, the bank has also partnered with HDFC which will help the former to access the products and services offered by HDFC bank and the latter to broaden its outreach in semi-urban and rural areas by leveraging the branch network and banking access points of IPPB (IPPB, 2021b).

#### **6.2.1d Challenges:**

**Customer Complaints:** As mentioned by the official interviewed, on an average 2 complaints are received per month per branch in Assam. The Central Processing Centre (CPC) in New Delhi keeps an eye on customer disputes relating to payments. Branch-level complaints are resolved at the bank branch itself, however, if not resolved at the branch then such issues are sent to the CPC. Furthermore, the contact centres in Noida, Chennai and Kolkata provide 24x7 services and through Interactive Voice Response (IVR) in 13 languages for issues relating to the block of virtual debit cards, enquiries and unauthorized debit of transactions.

The official also mentioned that to safeguard the interest of customers from cyber vulnerabilities, the customers are proliferated as high risk, medium risk and low risk on the basis of the regularity of transactions. The CPC monitors the accounts of the customers and in case of any discrepancy, the account of the customer is freezed and subsequently, the CPC contacts the branch, *Dav Sevaks* (agents) and the customer to investigate the matter.

In the areas of data privacy and performance, IPPB maintains customer confidentiality and follows the standards with respect to data privacy to increase its transparency to the customers. Personal data of the customers are not made available to anyone including the internal staff who are not authorized and do not have a business need to know the information. In case of sharing personal data with a third party, IPPB conducts due diligence that private controls and suitable security are in place in advance of sharing the data (IPPB, 2022).

#### **6.2.1e Barriers Faced in Operating in the North-Eastern Region:**

The official mentioned that as the percentage of Aadhaar cards in the North-Eastern region is lower it turns out to be difficult for the service providers to provide with seamless

transaction experience using the Aadhaar infrastructure, which is a prime foundation of IPPB's service. The official further added that though the percentage was only 12 percent in 2018 but is currently increasing and by the next 2 years the bank is optimistic that the provision of banking services through Aadhaar would exhibit a fillip. In addition, the issue of connectivity was brought to the notice and is considered a major deterrent factor in purveying digital financial services. There are some areas in the North-East, which lack telecom service due to which IPPB is not able to provide their services in those areas.

In terms of manpower issues in handling technical complexities, the bank has not yet faced any issue in the region. However, the official added that *“our focus areas i.e., our Unique Sales Point (USP) is Government subsidy-based payments but when compared with Maharashtra, West Bengal, Bihar, Chattisgarh, Uttar Pradesh, Telangana where most of the Government subsidy payments are done by IPPB, the ratio is comparatively lower in Assam and other North Eastern states. Additionally, though there was not much effect on the demand for our product/service in the region but functioning at the operational level was affected”*. The restrictions on lending also affect the viability of their operation. Besides, the increase in deposit limit of Rs. 200 thousand has increased the customer base as well as retention. The banks prioritise savings by linking post office savings bank and IPPB account. When an IPPB account is linked with a post office savings bank account, the customer can save more than the prescribed limit of Rs. 200 thousand and the excess amount is automatically deposited in the post office savings bank account.

**6.2.1f Regulatory Framework:** According to the official, the constraint in the connectivity issue can be resolved by improving flexibility in spectrum sharing regulation and to safeguard the customers' interest, the regulatory approach for FinTech start-ups should be status quo i.e., same regulations as the banks. When asked concerning RBI notification on the implementation of Online Dispute Resolution for solving consumer disputes, the official stated that the awareness regarding different security schemes is much lower and for the proper execution of such measures awareness in respect of such measures needs to be upgraded to counteract vulnerabilities relating to banking transactions. The official stated that in order to redress complaints relating to shortfall in certain services as mentioned by the RBI, the Digital Ombudsman Scheme is put in place. As a pro-active approach, the bank tries to inform the customers to not click on the unknown links given by the fraudsters and sends messages to customers' registered mobile numbers to make them cautious about fraudulent activities.

**6.2.1g Digital Literacy:** When asked regarding digital literacy camps organised to improve operations in the North Eastern region, the official brought to the notice that, the bank officials provide necessary training to the financial service delivery agents (*Dak Sevaks*) who provides the needed financial advice to the customers, especially in the rural hinterlands. Furthermore, when asked about the preparations to increase engagement among the people to boost digital inclusion. It was highlighted that the bank has not yet received any funding for digital financial services and as monitoring and infrastructure is a big challenge, thus, the bank has not yet adopted digital financial inclusion programme on a mass scale. The official further added “*During July, 2021, we tried to boost digital financial inclusion and awareness regarding banking products/services through video-conferencing on a pilot basis in Guwahati, Assam. For this, we randomly selected customers and texted/called the customers to join the session but very few people took part and hence, the initiative turned out to be a failure and we did not continue it on a large scale*”.

**Observations from the case:** IPPB has aided in providing accessible, affordable and ease in banking through the digital ecosystem and innovative services such as assisted UPI. This point is underpinned by the fact that about half of the account holders are women, the vast agent network and the high customer retention rate. Aside from improving its performance, the lower number of Aadhaar seeded bank accounts in Assam hinders IPPB in making swift government subsidy-based payments as is done in other regions of the country. IPPB provides its products and services through intuitively designed digital tools to turn down cash-dominant transactions but the connectivity issues like data server failure and poor speed of internet especially in rural areas act as an inhibitor in the seamless delivery of financial services in the state. The bank is not able to provide service in those areas, which lack decent network coverage. Furthermore, physical connectivity issue such as no proper infrastructure in the deprived areas of the state demotivates the *Dak Sevaks* in efficiently delivering their services.

## **6.2.2 Fino Payments Bank**

**6.2.2a General Overview:** Fino Payments Bank is a subsidiary of the FinTech company, Fino PayTech Limited. The company offers a range of technology-based solutions to insurance companies, banks and Government institutions. The company has made the strategic decision to transfer its business correspondent business to Fino Payments Bank

Limited to provide last-mile banking solutions by leveraging technology. The bank started its operations in July, 2017 after acquiring the payment bank license from RBI. Set up as a payments technology company, financial inclusion has been the core of the company's business. Fino Payments Bank is now serving in 90 percent of the districts in India with more than 724671 banking outlets, 130 Customer Service Points (CSPs) and 54 bank branches (Fino Payments Bank, 2022a). The bank turned profitable at the operating level during the financial year 2019-2020. The total revenue for the year ended March, 2021 stood at Rs. 7910.27 million along with a net profit of Rs. 204.743 million (Fino PayTech Limited, 2021). The bank's services are available through android-based mobile technology platforms. Furthermore, the bank has targeted another customer segment i.e., the families of people working in foreign countries. In view of this, the RBI has approved the bank for cross-border remittances with the intention that remittances from abroad can be withdrawn directly through AePS-enabled fino merchant points and nearby micro-ATMs. As the study is done with special reference to Assam, interview questions were asked to the North East Head, Fino Payments Bank to unearth the issues faced in extending their services in Assam.

**6.2.2b Customer Centricity and Interoperability:** To enhance customer experience and extend its reach to the last mile section, the bank has come up with a new savings account called 'Pratham Savings Account', which requires low monthly average balance requirement of Rs. 1,000 with instant activation of debit card, Aadhaar seeding to receive Government payments, IMPS at some nominal charges to other banks in the country. Additionally, the Jan Savings account is designed to furnish different banking needs without any monthly balance requirement, however, it involves an annual subscription charge of Rs. 249 (including GST) and no debit card is issued for such account. The customers can access the account through the BPay mobile app of Fino and its access points. The total number of registered customers in Assam as of March, 2021 is around 15,000 and as of March, 2022 is around 20,000 (as informed by the official interviewed). The official interviewed mentioned that the average yearly growth rate in the number of users of digital financial services in Assam is around 10-20 percent. In addition, the average yearly growth rate of registered customers is about 20-30 percent with a customer retention rate of less than 50 percent. Even though, the bank has opened more than 200000 full Know Your Customer (KYC) accounts from April to June mid, 2020 across the country, the rate of increase in customer base in Assam is comparatively low.



**Agent network:** The bank has 0.8 million merchants across the country with 80 percent of the network in rural areas. The current size of the agent network in the North East region is 2500 approximately with about 2000 agents deployed in the rural areas (80 percent) and 500 in the urban areas (20 percent). Furthermore, the bank follows a phygital approach i.e., a mixture of physical access points such as *kirana stores* (merchants) and digital platforms.

**Interoperability:** As mentioned by the official interviewed, Fino Payments Bank provides agent-level, mobile network level and platform-level interoperability. The use of mPoS (Mobile Point of Sale) enables customers with debit cards issued by other banks to make payments and perform withdrawal operations at Fino banking access points. Furthermore, the customers can use the products/services across multiple mobile network operators. In terms of platform-level interoperability, a customer with a mobile money service with the bank can easily send or receive money with a customer using a different mobile money platform. In addition, to the interoperable business model, the bank also cross-sells fixed deposit, insurance, loans and other offerings to further meet the demands of the last mile population.

**6.2.2c Network and Strategic Partnership:** Fino Payments Bank is backed by a strong foundation of Distribution, Technology and Partnership. As a long-term strategic plan, Fino has partnered with Bharat Petroleum Corporation Limited (BPCL) to offer banking services at BPCL outlets. Such partnership would aid in accelerating proficiency in payments and magnify the outreach in the provision of banking services. Fino Payments Bank also assists in delivering doorstep physical KYC and verification services for Amazon, ICICI bank and Kotak (Fino Payments Bank, 2022b). Basically, a FinTech with a banking license, Fino focuses on developing customer-centric digital solutions such as android-based mPoS to eliminate the inconvenience of carrying multiple devices by the representative and further assist the business correspondent model of the partner banks such as ICICI bank, Canara bank, Andhra bank, Union Bank of India, IDFC First bank and Syndicate bank (Fino Payments Bank, 2022c).

**6.2.2d Challenges:** This section get to grip with the challenges faced by the bank in offering its products and services in Assam. Thus, when asked regarding whether there is a demand-side lag for the products and services of the bank in the North Eastern region. It has been put to light that on average 4000 accounts are opened and 150 merchants/month

are appointed in the region of which 80 percent of the operations are in the state of Assam and the rest 20 percent in other states of the region. This point exhibits the fact that banking products and services are distributed inequitably across the region. A plausible reason could be physical connectivity infrastructure due to difficult terrain, which poses challenges in the delivery of last-mile financial services across the region. Furthermore, the moderate customer retention rate in Assam has put to light that there exists a demand side lag for the bank's services. Furthermore, the pandemic has affected customers' onboarding and after-sales service in the state and the region as well. The interviewee apprised that in case of customer complaints relating to payments such as unauthorized debit, technical glitches causing failed transaction, the bank scrutinizes the issue and is expected to be resolved within a turn-around time of 24-48 hours. Furthermore, the bank has put in place a 'Fraud Management System' which on the basis of investigation of cyber-related issues performs root cause analysis to come up with enhanced control mechanisms to safeguard the customers' interest (Fino Payments Bank, 2020).

The increase in the deposit limit of Rs. 2,00,000 provided a fillip to the bank's operations and assisted in meeting customers' needs. Besides, the bank already partnered with Survodaya Small Finance Bank to transfer the excess of the deposit limit to the Survodaya account. The restriction on lending activity does not affect the vitality of operations in Assam as well as other parts of the country. The bank's partnership with multiple Non-Banking Financial Companies (NBFCs) aids in availing credit online by business correspondent merchants and customers after fulfilling the eligibility criteria. The customers can opt for personal, gold loans while the business correspondent merchant can apply for business and working capital loans (Fino Payments Bank, 2022d).

**6.2.2e Regulatory Framework:** The official considered that the regulatory approach for FinTech service providers should be 'Live and Let Live approach' i.e., the products continue to develop but if the risks outweigh the benefits then the activity or product is curtailed or regulated. Furthermore, awareness regarding Online Dispute Resolution is comparatively low which makes it requisite to upgrade the cognizance about such facilities for the benefit of the aggrieved customers. While interviewing the official, it was observed that needful steps have not yet been taken by the bank to ameliorate the awareness regarding Digital Ombudsman Scheme, especially in rural areas. A plausible reason for this is that as they are more focused on acquainting the merchants with the necessary

facilities and proficiency thereby laying down lesser emphasis on non tech-savvy and digitally/financially illiterate customers.

**6.2.2f Digital Literacy:** When asked regarding whether digital literacy has been conducted to enhance digital financial inclusion in the state. The official briefed that when the distributors and merchants are onboarded with the system, the bank officials provide them with the necessary training to acquaint them with different services that the bank offers. The end-users of the service can visit the banking outlets to perform their transactions and familiarize themselves with transactions through the BPay app of Fino Payments Bank. Furthermore, programmes to set forth necessary digital literacy among the people in urban and rural areas to attenuate the digital divide have not been conducted yet. The official further added that the majority of the Fino Payments Bank customers in the rural areas of Assam use the service to make deposit and withdrawal at agent points and IMPS based transactions are done in rare case.

**Observations from the case:** Fino Payments Bank have aided in providing ubiquitous delivery of financial services through its phygital approach. With the core aim of enhancing financial inclusion and banking for the unbanked, the bank has come up with innovative technology-based solutions and its partnership with other financial institutions has assisted in offering a plethora of financial services to the bottom line section. However, in terms of its operations in Assam and broadly in the North Eastern region, the bank is constrained by the issue of physical infrastructural challenges to maintain its presence as 80 percent of its agent network in the region is in Assam. In addition, the average distance of its agent network in the region is way higher than other regions of the country thereby posing challenges to reach the unserved and underserved areas. Furthermore, as the customers visit the Fino points to make deposits and withdrawals thus, UPI and IMPS-based transactions are rare. In this regard, digital literacy programmes by the bank along with Fino merchants would aid in improving awareness among the unserved sections, make them conversant with additional financial services that the bank offers and aid in reducing the digital divide.

### **6.2.3 Bank of Baroda**

**6.2.3a. General Overview:** The Bank of Baroda, headquartered in Vadodara, Gujarat, is one of the largest public sector banks in India. The net profit of the bank as of year ended March, 2021 is 8290 million, which is a 51.78 percent increase compared to the net profit

for the year ended March, 2022 i.e., 5462 million. The branch network of the bank include 35 percent in rural areas, 25 percent in semi-urban areas, 18 percent and 22 percent in urban and metropolitan areas respectively (Bank of Baroda, 2021). The bank has made incessant endeavours to promote financial inclusion and usher in delivering banking services to the unserved. In this regard, the number of Basic Saving Deposit Bank Accounts (BSBDA) increased by 7.813 million and Pradhan Mantri Jan Dhan Yojana accounts increased by 8.334 million respectively during the financial year ended, 2021, respectively (Bank of Baroda, 2021). To further digital financial inclusion, special thrust has been taken for financing SC/ST communities under different schemes of the Government including Mudra loan, National Rural Livelihood Mission (NRLM), Stand-up and Start-up India (Bank of Baroda, 2020). The bank has undertaken sustainable information and communication technology-based channels with initiatives such as digitised account opening enabled through Aadhaar seeding, kiosks with account opening facilities with instant issuance of debit cards, seeding of Aadhaar in alternative delivery channels like business correspondent points, SMS, micro-ATMs through business correspondents in rural areas, mobile banking facilities to eliminate frequent cash usage.

The products and services are available in USSD, android and iOS systems. Whatsapp banking feature can be availed by the customers through their registered mobile numbers, furthermore, with missed call facility the bank customers can enquire their account balance into their registered mobile numbers. Due to the bank's drastic improvement in digital payment transaction target achievement, it has been rated 'good' by the Ministry of Electronics and Information Technology (MeitY). As Judgement sampling has been used for selecting the FinTech service providers and only those FinTech service providers are selected that are promoting financial inclusion and providing their services in Assam. Thus, interview questions were asked to the Financial Inclusion In-charge, Bank of Baroda Regional Office, Guwahati to highlight the issues faced in operating and furthering digital financial inclusion in Assam.

**6.2.3b Customer Centricity and Interoperability:** The bank has been engrossed in unlocking growth potential and creating value for its customers. While interviewing, the official informed that, with the initiative to further ease banking by leveraging technology, the bank has revamped its mobile banking app to BoB World erstwhile known as Bank of Baroda M Connect Plus. Furthermore, the average yearly growth rate in the number of customers in Assam is above 40 percent (as informed by the official).

**Agent network:** Embracing technology innovative approaches have been undertaken by the bank to reach the unserved and underserved areas. To meet the requirements of customers, 18000 business correspondent centres have been established in urban, semi-urban and rural areas (Bank of Baroda, 2020). The current size of the agent network in Assam is about 180 agents of which 40 percent are in urban areas and 60 percent are in rural areas. With the amalgamation of Vijaya Bank and Dena Bank with Bank of Baroda, the anchor bank has taken customer-centric approaches to integrate the payment system of the amalgamating banks to harmonise and provide upgraded functioning of the amalgamated entities (Bank of Baroda, 2020).

**Interoperability:** As mentioned by the official, customers of the bank cannot use the agent network of other digital financial service providers for cash-in and cash-out services. Thus, agent-level interoperability is not provided. However, the bank provides mobile network level and platform level interoperability i.e., the customers of the bank can use the products/services across multiple mobile network operators and the customers are able to send and receive money to another customer having an account with a different mobile money platform.

Furthermore, in order to provide an extensive reach of the bank's services to semi-urban and rural areas, the bank has integrated Bharat Bill Payment System (BBPS) with business correspondent points as of September, 2019 so that the business correspondents can assist in bill payment, especially in the rural areas (Bank of Baroda, 2020). The bank has also put in place Artificial Intelligence (AI) powered assistant on its website to help customers ask queries regarding issues faced by them. The customers can simply type the query or choose from the options given. In case, the query cannot be resolved by the chatbot, it transfers the query to a human agent by providing the customer service number.

**6.2.3c Network and Strategic Partnership:** As a strategic move to provide better customer experience by leveraging technology, Bank of Baroda partnered with Paisabazaar.com in 2019 to achieve further scale in the home loan segment. Furthermore, the bank has about 50 partnerships with different FinTech start-ups to provide a superior customer experience (Bank of Baroda, 2020). In addition, the bank has set up the Information Technology Centre of Excellence with IIT Bombay, which is a unique industry-academia partnership to stimulate innovation and provide tech-based solutions to hardware and software challenges faced by the bank (Bank of Baroda, 2019). With

ingenious digital solutions, the Guwahati region stood second for digital loans offered for the quarter ended June, 2021 (as informed by the official).

### **6.2.3d Challenges:**

**Complaints and Privacy:** The interviewee mentioned that the operation of the bank in the state is divided into 2 sections i.e., Guwahati region and Jorhat region. On an average monthly 4 to 5 complaints are received by the bank's regional office and it is obligatory on the part of the employees to resolve the complaints within 3 business days. New customers at the time of onboarding are given needful advice and awareness to protect the interest of the customers from cyber-vulnerabilities. Information is displayed on the bank's notice board/ATMs to broaden customer cognizance. Furthermore, the bank undertakes the utmost measures to increase transparency in the area of data privacy and performance. Personal information collected from the customers is used for relevant lawful purposes. While sharing data with third party service providers the bank maintains approved guidelines that the information is used and shared as per the service level agreement and non-disclosure agreement wherever applicable (Bank of Baroda, 2022). The bank performs periodic risk assessments, monitoring of phishing sites, rogue mobile apps, implemented technology-based solutions to protect from Distributed Denial of Service (DDoS) attacks and adopts measures for cybersecurity preparedness as per RBI cybersecurity framework (Bank of Baroda, 2020).

**6.2.3e Barriers Faced in Operating in the North-Eastern Region:** When asked with respect to the barriers faced/facing in operating in the region. The official informed that due to difficult terrain and infrastructure issues in the states of Mizoram and Meghalaya, business correspondents in many places of the two states face difficulties. Adding to this, there are some places where business correspondent points are located at an average distance of 120 kms from the main branch, which poses a challenge on the part of the business correspondents in terms of depositing cash collected to the branch and performing other banking functions. The official further added that as employees are recruited from different parts of the country, the bank does not face any manpower issues in handling technical complexities for the services offered. However, sometimes issues are faced with regard to network connectivity in times of poor network quality caused by network congestion, slow internet speed, etc. the agents use the core banking software provided by

the bank i.e., Finacle, however, issues with the banking software results in a halt in seamless provision of banking services especially at the agent points.

As mentioned by the official, the pandemic did not affect the demand for the products/services in the region. The official informed, *“The bank resorted to doorstep banking during the time of lockdown and services such as deposit, withdrawal, issue of 3 months bank statement among others were provided by third parties authorised by the bank. Such services were immensely used by the customers during the challenging time of the crisis”*.

**6.2.3f Regulatory Framework:** As opined by the official, as a proactive step the regulatory approach for the FinTech start-ups should be on a controlled experiment basis (like the regulatory sandbox), which would help in live testing of the products and services under the regulator’s supervision. In addition, when asked regarding the Online Dispute Resolution put in place under the Payment System Vision, 2021 by RBI for grievances and disputes relating to digital payments with minimal or no manual intervention. The official commended the initiative and informed that during literacy programmes necessary knowledge relating to new guidelines are imparted along with this the bank continuously promotes transparent and customer-friendly ways to redress disputes. As in the case of unresolved disputes for up to one month, the customers can approach the RBI-Integrated Ombudsman Scheme, 2021, however, continued initiatives are undertaken by the officials to resolve the disputes as soon as possible. In case of a new customer or non-tech savvy customers, the bank official usually makes the first log in to make the customer customary with the system. In rural areas, the business correspondents help the customers in issues relating to resolving grievances. In case of issues with unauthorized debit, issues with UPI, the bank officials can trace the transactions and provide the necessary support to the customer. The official, however, mentioned that as a pro-active approach, the customers are always advised to report any phishing mails, SMS or calls to protect themselves from payment-related vulnerabilities.

**6.2.3g Digital Literacy:** As put to light by the official, the bank has collaborated with State Level Banker’s Committee Assam, Government rural departments, panchayats, agriculture department and NABARD to organize digital literacy for improving operations in the North-Eastern region. Under many schemes, subsidy is provided to the bank by NABARD for conducting literacy programmes. In addition, when asked regarding the

preparations to improve engagement among the people to boost digital financial inclusion, it has been brought to notice that the bank targets cent percent digital financial inclusion. In this regard, it has come up with missed call facility for feature phone users. Additionally, the bank sets target to onboard new customers and existing ones into the digital banking space. With the convenience of WhatsApp banking and the revamping of the bank's mobile banking app with a plethora of features, priority is given to customer satisfaction and upgrading digital inclusion.

**Observations from the case:** With the endeavour to promote accessibility, affordability and ease in the provision of banking services the bank follows a mixture of digital and physical infrastructure by upgrading its banking app and providing the business correspondents with essential equipment to perform technology-based banking services for the customers. The bank follows a digital-led experience through FinTech partnership to adapt to new ways of working through missed call facility for feature phone users, WhatsApp banking, unlocking growth potential by furthering its services to the unserved areas and financing the unserved under various Government initiatives. Periodic assessments of monitoring of rogue apps, phishing sites and implementation of technology to protect from Distributed Denial of Service (DDoS) attacks would enhance customers' trust and identify deficiencies for undertaking corrective measures against cyber vulnerabilities. However, infrastructural issues especially in the North Eastern states of Mizoram, Meghalaya are posing constraints in the coherent delivery of financial services by the business correspondents.

Furthermore, the issue of network bandwidth especially at business correspondent points of Assam as well as the region results in slackening of the provision of banking services thereby causing inconvenience in the smooth delivery of financial services.

#### **6.2.4 UCO Bank**

**6.2.4a General Overview:** UCO bank is one of the nationalized banks in India and is head-quartered in Kolkata. The bank offers its products and services in all the states of India and has two overseas branches one each in Hong Kong and Singapore. The representative offices of the bank are in Iran and Tehran, which is functional wef 2017 (UCO bank, 2021). As of March, 2021, the bank has 42 zones with 3087 domestic branches in India. Considering the population category-wise domestic branch, the bank has 587 branches in metropolitan areas, 603 branches in urban areas, 821 and 1076 branches in



semi-urban and rural areas. The bank has a major concentration of branches in the North Eastern region with 3 zones i.e., Guwahati zone, Jorhat zone and Agartala zone. The Guwahati zone comprises of 98 branches including those of Meghalaya, the Jorhat zone has 60 branches inclusive of the branches in the states of Nagaland and Arunachal Pradesh. Furthermore, the Agartala zone has 47 branches including those of Tripura and Manipur. The bank registered a net profit of 1670.7 million in the financial year ended March, 2021 after continuous losses in the previous five financial years (UCO bank, 2021). Heading into the pandemic, the bank has experienced augmentation in the demand for digital financial products and has made several upgradation to digital products to enhance digitalisation (UCO bank, 2021). The different mobile technology platforms used by the bank include USSD, android, and ioS. In addition, the bank has been allotted 16280 villages (UCO bank, 2020) across the country for the provision of inclusive banking services to meet the needs of the unserved and underserved areas. The concoction of technology and financial services has enhanced opportunities, which led to an average Jan Dhan transaction worth 1605 million to be settled on micro-ATMs used by business correspondents (UCO, 2021).

Considering the bank's operation in the state and UCO bank being the lead bank in the Darrang, Dhubri and Kamrup districts (three out of four districts surveyed) has been selected for the study. Thus, interview questions have been asked to Financial Inclusion Incharge, UCO Bank Zonal Office, Guwahati to highlight the issues faced in operating and furthering digital financial inclusion in Assam.

**6.2.4b Customer Centricity and Interoperability:** As informed by the official, the total number of registered customers in Assam is approximately 384000 out of which around 45 percent are from urban areas and 55 percent are dwellers of rural areas. The official further informed that the current customer retention rate in Assam is 70 – 90 percent. The average yearly growth rate in the number of users of digital financial services in Assam is 20 – 30 percent. The bank has adopted customer-centric approaches to enhance the digital transaction experience amongst its customers. In this regard, the bank has revamped its mobile banking app with additional features like the implementation of chatbot, adding nominee in the mobile banking app, applying for SBI life insurance and Quick Response (QR code) facility among others. Furthermore, the UCO Pay wallet of the bank provides additional benefits of online account opening, video-based KYC facility, bill payment, etc. To ameliorate customer experience, the bank introduced door-step banking services for

differently-abled persons and senior citizens (UCO bank, 2020). To accomplish the aim of development in the rural areas through financial and social intervention, the bank has adopted 31 villages in 10 different states of the country including Assam under UCO Uthaan Scheme (UCO bank, 2019, 2021).

**Agent Network:** The bank has deployed business correspondent agents (*bank mitras*) to ensure progress in financial inclusion and to bring about structured banking facilities in rural areas. The bank has deployed 3655 bank agents in various underbanked areas across the country termed as Sub-Service Areas (UCO bank, 2021). There are around 500 business correspondent agents in the North Eastern region out of which, 350 agents are deployed in the state of Assam. The deployment of agents is being done in a ratio of 9:1 in rural and urban areas respectively. Aadhaar, is being used for opening customer accounts and for acquiring benefits by bank customers under various government welfare schemes.

**Interoperability:** The bank has an interoperable network to provide customer-friendly features, increase the customer value proposition to use banking products and enhance customer convenience. As informed by the official interviewed, the customers of the bank can use the agent network of other digital financial service providers for cash-in and cash-out services. Furthermore, the bank also provides mobile network level and platform level interoperability i.e., the customers can use products/services across multiple mobile network operators and can send or receive money to another customer, which may have a different mobile money platform.

In addition to interoperable banking services, the bank also has a voice and text-based chatbot to resolve customer queries. The bank has also introduced Interactive Voice Response (IVR) based phone banking solution named as “UCO SAMPARK” which assists customers with banking facilities like balance enquiry, mini statement for the last five transactions, UPI service, blocking of card, internet banking facility, etc. The service is provided in Hindi, English and ten different regional languages.

**6.2.4c Network and Strategic Partnership:** The bank assists in soliciting insurance business and has two channel partners in each insurance segment i.e., SBI Life Insurance Co. Ltd and Life Insurance Corporation of India for life insurance. Future Generali India Insurance Co. Ltd and The Oriental Insurance Co. Ltd for general insurance. Care Health Insurance Ltd and Star Health & Allied Insurance Co. Ltd for health insurance. The bank

also has a partnership with Kotak Mahindra Life Insurance Company Ltd to cover the life risk of retail education and home loan borrowers (UCO bank, 2021). Furthermore, the bank focuses on partnerships with FinTech companies for building up its customer reach techniques. The bank has a tie-up with FinTech company for lead generation i.e., initiation of customer interest/enquiry into banking products and reduction in turn-around time (UCO bank, 2019).

#### **6.2.4d Challenges**

**Customer Complaints and Privacy:** The official informed that on average, 15-20 complaints per month per branch are being received in Assam. In case of unauthorised debit /payments got stuck, the bank has the auto reverse feature where the amount is automatically credited to the aggrieved customer's account within 24-48 hours. However, if the customer still does not receive the amount, then, the customer is asked to fill out the relevant form with details about the amount of transaction done, etc. and the information is then sent to the head office which tallies the customer's account, the amount is then reversed back to the customers' account within a turn-around time of five days. When asked about the mechanism to protect the interest of customers from cyber-criminal activities, it was informed by the official that *"when we receive a complaint concerning cyber-fraud, the bank freezes the account of the customer, blocks the debit card and after resolving the issue the customer's account is activated again and new debit card is being issued"*. Furthermore, the bank has a Cyber Crisis Management Plan to guarantee a swift response, quick identification of frauds and corrective measures to alleviate and recuperate from cyber threats (UCO Bank, 2020). Cyber awareness is being organised for employees to disseminate awareness to the users of the service.

With respect to data privacy and performance, utmost confidentiality is being maintained as informed by the official. Customer data is considered sensitive and private even when the person is no longer banking with the bank. The bank does not disclose any personal information of the customer unless it is compelled by the law/regulation, authorised by the customer or provided for a mandated business purpose i.e. credit information companies (UCO bank, 2022).

#### **6.2.4e Barriers Faced in Operating in the North Eastern Region**

When asked regarding the major barriers faced in operating in the North Eastern region of India, the official informed that the Very Small Aperture Terminal (VSAT) solution, which is generally a satellite-based connection is used for ATM penetration by the banks in areas that lack infrastructure or a reliable network. VSAT solutions are cost-effective and flexible as compared to terrestrial-based networks. Besides, the official informed that VSAT connections get affected during bad weather conditions and latency problems, especially in rural areas of the region, which hinders the smooth delivery of financial services. Furthermore, even though the technological aspects of the banking operations are outsourced to different companies by tie-up with the bank but manpower issue is being faced in the region which affects the operation at the branch level.

Initiatives are being taken by the bank to upgrade its digital banking services with a view to offering uninterrupted financial services to its customers. However, connectivity issues in the region are hampering the demand for FinTech services. As mentioned by the official, the penetration rate is gradually increasing amidst the pandemic but is still in its developing phase i.e., as compared to debit card usage mobile banking app-based service usage is minimal.

**6.2.4f Regulatory Framework:** As opined by the interviewee, in order to overcome the connectivity issue, better alternative is requisite to be adopted for the seamless delivery of banking services especially in the North Eastern region. The flexibility in spectrum sharing regulation could bring about a change in user experience and ease in operations. Addressing the connectivity issues require infrastructure capable of high latency response, efficient use of spectrum and number of concurrent connections. In addition to this, the regulatory approach for FinTech companies should be status quo i.e., same regulation as the banks. This would assist in better grievance redressal mechanisms for the customers when using the digital financial service offered by a third party.

Furthermore, the rural customers of the region are generally unaware of the implementation of Online Dispute Resolution for resolving customer disputes relating to digital payments. When any customer approaches the bank with any such dispute, the bank employees acquaint the customers with the necessary procedures to file a complaint for the issue faced by them. The bank also notifies their customers through SMS in their registered mobile number with the bank. As per RBI guidelines, emphasis has been made

on customer convenience and necessary numbers are displayed in every bank branch to keep the customers informed about various redressal mechanisms. Furthermore, the bank has a Standardised Public Grievance Redressal System to lodge complaints online (UCO Bank, 2019). The customers are briefed regarding such services during the financial and digital literacy programmes conducted by the bank.

**6.2.4g Digital Literacy:** The RBI issues operational guidance for the conduct of literacy camps by the financial literacy centres and rural bank branches (UCO bank, 2021). The bank has Financial Literacy Counselors responsible for conducting financial literacy camps in the state. The official informed that such programmes in every district are organised by the lead bank. The financial literacy counsellors conduct five literacy camps/month based on the area of operation. The information regarding the literacy programmes is then communicated by the Lead District Managers to the State Level Banker's Committee, which is further conveyed to the Government/RBI. Furthermore, to increase the engagement among the people to boost digital financial inclusion in Assam, the bank use a tailored approach and visits gram panchayats, schools and SHGs to impart requisite knowledge so that the customers are able to make financial decisions and choices that best fit their needs. As of March, 2021, there are 29 Financial Literacy Counselors in the states of Rajasthan, Assam, Bihar, Himachal Pradesh, Odisha, West Bengal and Punjab (UCO bank, 2021).

**Observations from the case:** The bank has undertaken numerous technological initiatives such as cardless cash withdrawal for mobile banking customers and revamped the mobile banking app with an enhanced user interface for impeccable delivery of financial services. However, the penetration rate of users of digital financial services is lower in the North Eastern region as opposed to other regions of the country. As mentioned by the official, the connectivity issues such as latency and lack of proper network infrastructure are the stumbling blocks in the demand for digital financial services in the region. Moreover, operation at the branch level is affected due to a lack of sufficient manpower in various branches of the region. Thus, it can be inferred that even though the bank has been engrossed in the adoption of digital means to meet the customer preferences in the dynamic financial service sector, however, inadequate demand for digital financial services (i.e. use of mobile banking apps as compared to debit card) due to connectivity and infrastructure issues has emerged as the challenge for the bank.

## **6.2.5 IndusInd Bank**

**6.2.5a General Overview:** IndusInd bank established in the year 1994 and headquartered in Mumbai is one of India's largest private sector banks. It is a universal bank with an extensive banking footprint with more than 25 million customers. With digitisation being the heart of its operations, the bank focuses on the mantra of 'responsive innovative' (IndusInd bank, 2021) to deliver technology-based innovation to meet the customers' needs. This made the bank maintain its position among the top three private sector banks in the digital payments space in the latest MeiTy digital payment scorecard. The bank offers its products and services in all the states of India and 6 out of 8 union territories, with representative offices in London, Abu Dhabi and Dubai. Under its financial inclusion initiative, the bank has forayed into the rural markets to reduce the urban-rural gap and bring the unserved and underserved into the mainstream banking system. As of March, 2021, the bank has 2015 branches out of which 43 branches are in the North Eastern region of the country. The bank generated a net profit of 28360 million for the year ended March, 2021 (IndusInd bank, 2021) and is offering its products and services under various platforms such as USSD, android and iOS.

For the study, interview questions were asked to the regional head, IndusInd bank to grasp the issues faced in the supply of FinTech services for fostering financial inclusion.

**6.2.5b Customer Centricity and Interoperability:** The bank earmarked a 'customer first' approach (IndusInd, 2019) to bring forth an increase in wallet penetration and customer retention. To enhance customer experience, the bank has come up with digital account opening and simplified online KYC validation, which will further bring down the turn-around time and assist low-income groups to open accounts with minimal documentation. Several initiatives were undertaken amidst the pandemic to aid the customers bank from their homes. These include a portal for fixed deposits for the existing bank customers, issuance of virtual debit cards for e-commerce transactions and door-step banking solution through Bharat Money Stores. As informed by the official, the average yearly growth rate in the number of users of digital financial services in Assam is above 40 percent and the customer retention rate of the bank in the state is above 90 percent.

In addition, the bank has an interoperable business model thereby offering access to its products and services through agent, platform and mobile network level interoperability. Leveraging the digital approach, the bank also has a multi-lingual text-based artificial

intelligence-powered assistant to help customers ask queries regarding issues faced by them. In addition, artificial intelligence-based Alexa Skill-Indus Assist also aids customers to perform financial transactions on voice-based commands on Alexa-enabled devices with two-factor authentication (IndusInd Bank, 2018).

**6.2.5c Network and Strategic Partnership:** In order to enhance value for customers, the bank from time to time engages in alliances and tie-ups. As a strategic move to ameliorate financial inclusion and cater to the needs of the last-mile population, the bank merged with Bharat Financial Inclusion Limited in the year, 2019. The amalgamating entity serves as a retail distribution point for the bank by acting as a business correspondent/agent. To enhance digital financial innovation, the bank has also partnered with FinTechs for digital lending operations. Furthermore, with a view to setting up co-branded ATMSs and enlargement of the ATM network, the bank has partnered with white-label ATM operators.

#### **6.2.5d Challenges**

**Customer Complaints and Privacy:** The official informed that on average three complaints are being received per month by the banks operating in the state. In order to resolve customer complaints, the bank performs double-checking of the transactions claiming unauthorised debit and suspicious activities are being reported to the higher authorities. However, as per the RBI circular, the banks are required to report fraudulent activities and perform closure of the same within 90 days from the date of report of the transaction (IndusInd bank, 2020). The bank conducts proactive assessments and participates in cyber-drill activities conducted by the Institute of Development and Research in Banking Technology (IDRBT) to build effective controls against cyber-related threats (IndusInd, 2020). Furthermore, the official informed that as awareness plays a crucial role in alleviating cyber-related risks, the bank's periodic information is being communicated to the employees as well as the customers to protect the interest of the customers against cyber vulnerabilities.

Furthermore, the bank ensures the privacy of customers' information as required by the regulator. Information collected is used for relevant lawful purposes relating to various activities related to the bank. In addition, the employees are bound by a code of conduct to maintain the utmost confidentiality of customers' information and are permitted to access customers' information provided it is used only for banking purposes.

### **6.2.5e Barriers Faced for Operating in the North Eastern Region**

The official informed that the bank does not face manpower issues in handling the technical complexities of their products/services. The Unique Selling Point (USP) of the bank is its interest rate and thus, focuses more on savings and fixed deposit account. Even though, the demand for technology-based financial services is expanding in the region, however, connectivity issues, lag in connection speed, link failure and physical connectivity especially faced in North Eastern region act as deterrent factors in the sound functioning of their operations. The official said that, *“Even though 5G is set to roll out in different parts of the country but the network speed here is very low, also, many areas lack access to 4G connectivity thereby making saturation of 4G mobile services requisite for refinement of digital financial services in the region”*. Furthermore, it was brought to notice that as compared to Assam, the picture is particularly grim in the North Eastern states of Meghalaya, Mizoram and Manipur. During the unprecedented Covid-19 pandemic, the bank used the Knowlarity platform (platform that provides voice, messaging, video and AI-based services) to engage with the customers of the bank.

**6.2.5f Regulatory Framework:** In order to bring down the complaints pertaining to third party transactions, the official opined that the regulatory approach for FinTech service providers (including FinTech start-ups) should be status quo. In addition, the bank every so often bolsters its Anti Money Laundering and Know Your Customer (KYC) measures to ensure the protection and safety of customers’ and bank’s operations. With regard to Online Dispute Resolution (ODR), the bank updates the customers by displaying necessary details on the bank’s notice board and website, however, the procedures are not explained in detail until it is specifically asked by the customer. In addition, the bank has implemented a ‘Customer Protection Policy’ as required by the regulator for handling complaints pertaining to unauthorised transactions done using digital mode to bring forth a secure and competent transaction experience (IndusInd bank, 2020).

**6.2.5g Digital Literacy:** The bank endeavours to enhance digital and financial literacy to improve customer penetration in Assam. The official disclosed that digital literacy programmes are being outsourced to regional or national agencies, where programmes are conducted on a quarterly basis or 2-3 times a year. With the aim to ameliorate digital financial inclusion, the bank is engaged in increasing the ATM network in the region. Furthermore, to grant access to digital financial services, the bank is planning to set up a



two-man branch (to act like business correspondent) in the rural and unserved areas of the North East.

**Observations from the case:** The bank has undertaken significant initiatives to enhance access to financial services through collaboration with FinTech start-ups and other service providers. In order to deliver a secure and convenient banking experience during the pandemic, the bank has also come up with innovative solutions such as a portal for fixed deposit for existing customers, issuance of virtual debit cards and doorstep banking solutions. Even though the bank's customer retention rate in Assam is fairly high, however, the turn up of customers into digital financial services requires improvement. Furthermore, the issues of link failure, network and physical connectivity are posing constraints in the smooth delivery of financial services in the region particularly in the North Eastern states of Manipur, Mizoram and Meghalaya. Thus, improving digital financial literacy along with enhanced payment infrastructure is a pre-requisite. As informed by the official, the bank receives complaints relating to payments using the services of third party service providers and have opined to have similar regulation for grievance by aggrieved customer like those of the bank.

## **6.2.6 HDFC Bank**

**6.2.6a General Overview:** HDFC Bank, founded in 1994 with a registered office in Mumbai, is one of India's leading private sector banks. The bank has also set up representative offices and branches in Bahrain, Dubai, Hong Kong and Kenya (HDFC bank, 2021). As of March, 2021, the bank has 5608 branches and 15756 business correspondent agents across the country (HDFC bank, 2021). The operation of the bank is divided into different regions out of which, the Eastern region has the highest share of operations as it includes the North Eastern region of the country. In addition, the bank has undertaken initiatives to strengthen its presence in North East to meet the requirements of the unserved population. The bank has 124 branches in the North East, out of which 83 branches i.e. 66.9 percent are in the largest state of the region, Assam. The bank continuously strives to embrace digital financial services and offer its services in USSD, iOS and android technology platforms together with registering a growth of 18.51 percent in net profit (311165.2 million) as of March, 2021 when compared with the profit of previous financial year i.e., March, 2020 (262573.1 million).

In order to grasp the issues faced by the bank in operating in the state of Assam, interview questions were asked to the Deputy Manager, Zonal Analyst HDFC Bank (Retail Branch Banking).

**6.2.6b Customer Centricity and Interoperability:** As informed by the official “*Customer centricity is in the heart of our operations*”. The bank earmarked into phygital approach to offer seamless banking experience to its customers. With digitisation being the strategic focus, the bank has come up with technology-based account opening process. The bank also uses Net Promoter System called ‘Infinite Smiles’ to refine its offerings and banking process together with aiding in initiating employee actions and behaviour to generate customer-centric measures. As of March, 2021, the total number of registered customers of the bank is more than 56 million (HDFC Bank, 2021). As regards to Assam, there are approximately 0.5 million registered customers of the bank with an average yearly growth rate of 20-30 percent (the official informed). However, about 30 percent of the customers are in urban areas and 70 percent are in rural areas. The official further informed that the penetration of digital financial service users is only 30 percent in the state. The bank focuses on word-of-mouth promotion and improving service quality to enhance its customer acquisition rate. Furthermore, the bank has a customer retention rate of above 90 percent in Assam. The bank employees possess the data with regard to the users and non-users of digital financial services. In case the users’ net banking account is inactive, the bank tracks and calls such customers to make them aware and enhance the penetration of digital transactions in the state. The customers are also invited for a demo in the branch if they are sceptical and have a lack of digital transaction experience.

**Agent network:** The bank mainly has its agent network in semi-urban and rural areas. To extend digital banking services at the gram panchayat level and the rural markets, the bank has tied up with Common Service Centres (CSCs) managed by Village Level Entrepreneurs (VLEs), a special purpose vehicle under MeiTy. This has aided the bank in enhancing its penetration into the SURU (Semi Urban and Rural) markets and catalysed a large distribution network. At present, there are more than 300 CSCs of the bank operating in the state of Assam (the official mentioned).

Furthermore, with a further focus on interoperability, the bank has introduced a consent-based video KYC solution in accordance with RBI guidelines (HDFC Bank, 2021). As of March, 2021 about 256861 accounts have been opened through video-based KYC across

the country (HDFC, 2021). Together with providing mobile network and platform level interoperability, ten seconds loan and missed call banking for paving the way to Digital 2.0, the bank also provides voice and text-based multilingual virtual assistant where the customers can ask queries regarding the issues faced by them. With the goal of improving accessibility, the virtual assistant EVA has also been integrated with Alexa and Google Assistant.

**6.2.6c Network and Strategic Partnership:** In order to warrant the Government's mandate of attaining digital, financial and socially inclusive society, the bank has teamed up with the Central and State Governments in the areas of digitisation through the establishment of CSC centres in rural areas, customised banking package for Government employees and incubator programmes to further entrepreneurship (HDFC bank, 2019). The bank also assesses innovative technology-based solution through its multiple FinTech partners. As informed by the official, the bank also equips itself with the internet service of various telecom operators to avoid link failure and smooth operation.

#### **6.2.6d Challenges:**

**Customer Complaints and Privacy:** With regard to any complaint from the customers for inappropriate debit/payment getting stuck, the bank pivoted to resolving the issue within 24 hours through the Customer Query Resolution (CQR) software. Furthermore, through the 'Infinite Smile' section the customer can file any complaint relating to their experiences with the bank, which is tracked by the bank to refine its operations. The official further mentioned that on average yearly 3-4 complaints relating to cyber vulnerabilities are received by the banks in Assam and the reason for most of such cyber-attacks is on the part of ignorant behaviour of the customers i.e., sharing of One Time Password (OTP) to fraud calls. As a consequence to take the edge off such cyber-related issues, the bank continuously messages and mail their customers to not share any banking-related information with fraudsters pretending to be banks, phishing sites, Government imposter scams, charity scams, etc. The official further brought to notice that *"Amidst the unprecedented Covid-19 pandemic, when the online transactions started to gain momentum, the bank initiated a unique campaign called 'Mooh Bandh Rakho' to avert cyber vulnerabilities and also the spread of Covid-19 by wearing a mask"*.

### **6.2.6e Barriers Faced in Operating in the North Eastern Region:**

With regard to barriers faced in operating in the region, it was informed that the ratio of digitally active customers is meagre and the cognizance regarding insurance products is also scarce, which in turn hampers the insurance penetration in the region. Knowledge of banking among the last mile population is minuscule, which requires constant effort by the bank to make them aware of the product that best suits their needs. The official informed that *“many people come to the bank branch to update their passbook even when they receive Rs. 800 under Orunodoi scheme of the Government, which can easily be checked from the comfort of their homes if they were digitally active”*. As the hacking issue dissuades especially the elderly and rural customers from availing themselves of digital banking products, the bank has come up with a digital penetration desk where customers with inadequate digital transaction experience are given demos regarding different digital financial services. Even the bank attempt to guide the customers in installing the bank’s app and resolve any issue faced by the customers concerning digital financial services. *“If a customer uses a deposit slip, stamp, cheque leaf, etc. it incurs cost for the bank, we also want the transactions to be executed digitally to impart better and seamless banking experience for the customers. Even though FinTech services are being used but rapid growth is yet to come in the region”*.

Infrastructural issues such as electricity in some parts of the region possess the constraint of link failure, which affects the well-ordered communication between branches. However, with the CSC initiative, operations in the last mile areas such as account opening, document verification, etc. are being managed at a smooth pace. The CSCs are even equipped with mobile ATMs to perform basic banking functions like depositing and withdrawing money with the help of debit cards. Furthermore, in order to do away with the issue of ATM infrastructure the bank has extended a mobile van facility to enhance access and assist the customers in withdrawing cash without the need to travel to distant areas. This initiative by the bank has received immense response from customers located in far-flung areas.

### **6.2.6f Regulatory Framework:**

The official opined that the regulatory framework for FinTech start-ups and third party payment service providers should be like banks. *“In case of transactions through third party payment service providers are not resolved it becomes difficult for the customers to*

*gain trust in FinTech-based services. In my opinion, third party service providers should have some outlets in various places of the country where the customers can cross-examine the issues faced by them”*. Furthermore, awareness regarding Digital Ombudsman Scheme among the customers in the region is deficient thereby requiring pro-active approaches to enhance the comprehension of various ombudsman schemes put forward by the regulator.

**6.2.6g Digital Literacy:** The bank supports an initiative called ‘Parivatan’ where the most dis-advantaged sections are being uplifted in five distinct areas i.e., rural development, skill training, healthcare and hygiene, education, financial literacy and inclusion (HDFC bank, 2021). The official informed that the employees have the data concerning digitally active/inactive customers and thus, at the branch level the employees try to educate the customers regarding digital banking. The bank also organises various literacy activities through its marketing channels by inviting customers through their registered mobile numbers to join the sessions. In case digital interaction is not possible, physical awareness is being done through direct and indirect interventions with the last mile sections. Besides, with the outbreak of Covid-19 pandemic, physical financial and digital literacy programmes in the region are lesser as compared to pre-covid level.

**Observations from the case:** The phygital approach of the bank i.e. the concoction of physical and digital platforms assists in providing an omni-channel experience and seamless delivery of financial services to its customers. However, as informed by the official, the lack of comprehension about digital financial services especially among the last mile population and poor infrastructure especially in far-flung areas acts as an inhibitor in the efficient delivery of financial services. As financial literacy and inclusion are inextricably linked to goals 5 and 10 of the Sustainable Development Goals, a strong emphasis on digital financial inclusion would intensify the trust and attitude towards technology-based inclusion of the last-mile population in the state. Furthermore, CSC centres established by the bank have aided in augmenting the access and banking experience, especially in the rural areas of Assam. However, risk exposures such as cyber vulnerabilities, compliance and reputational risks, which are inherent with digital financial transactions require increased comprehension and pro-active outlook specifically by the elderly and last mile section to overcome any systemic risks arising out of digital transactions.

### **6.3 Chapter Summary**

This chapter presented the case studies on two payment banks, two private sector and two public sector banks. Even though the customer base has grown over time, the amount of Aadhaar seeded bank accounts is relatively lesser when compared to other Indian states. It has been observed in all the cases that even while banks have made attempts to increase understanding of the various ombudsman schemes proposed by the regulator, knowledge of the digital ombudsman schemes remains extremely low. Infrastructure issues impede the seamless delivery of financial services, particularly at agent points. In comparison to public sector banks, payment banks in the state perform minimal literacy programmes. However, even if attempts were done, issues such as a low turn-up ratio, lack of funding and monitoring led to their failure. Inefficient delivery of financial services is thus hindered by a lack of understanding of digital financial services, particularly among the last-mile population. Due to issues with banking software, latency, network congestion, etc., the provision of financial services ceases to be seamless, which dampens the demand for FinTech services. Additionally, unresolved disputes regarding third-party transactions result in a lack of trust among customers, which decreases the rate of FinTech service adoption. The supply-side factors identified from each case after interviewing the officials are presented in detail in section 7.5 of chapter 7.

**Table 6.1:** Comparison chart among the FinTech service providers

Basis of Comparison	FinTech Service Providers					
	India Post Payment Bank (IPPB)	Fino Payment Bank	Bank of Baroda	UCO Bank	IndusInd Bank	HDFC Bank
<b>Customer Centricity and Interoperability</b>	IPPB’s average annual growth rate of digital financial services is above 40 percent, and the customer retention rate ranges between 70 and 90 percent. Aadhaar Enabled Payment System (AePS) is used for interoperability at the agent level. Customers of IPPB are able to use the product/service	Fino Payments bank has come up with a new savings account called ‘Pratham Savings Account’, requiring a low monthly average balance requirement and the Jan Savings account, to furnish the different banking needs without any monthly balance requirement. Average yearly	In order to provide ease in banking by leveraging technology, Bank of Baroda has revamped its mobile banking app to BoB World. The average yearly growth rate in the number of customers in Assam is more than 40 percent. The bank provides mobile network and platform-level interoperability. In addition, the bank	UCO bank revamped its mobile banking application with additional features such as Quick Response (QR) code facility, insurance, adding nominee to enhance digital transaction experience. Furthermore, the growth in users of digital financial services in Assam is 20-30 percent and the customer retention rate is 70-90 percent. In addition, the bank provides agent, mobile network and platform-level interoperability.	During the pandemic, several initiatives were taken to help customers bank from home, including a portal for fixed deposits for existing bank customers, the issuance of virtual debit cards for e-commerce transactions, and a door-to-door banking solution through Bharat Money Stores. The IndusInd bank provides agent, platform, and mobile network interoperability.	HDFC bank uses a Net Promoter System named 'Infinite Smiles' to refine its offerings and banking process, as well as to assist in generating customer-centric employee actions and behaviour. The penetration of FinTech users of the bank is only 30 percent with a customer retention rate of 90 percent in Assam. The bank has implemented a video KYC solution and provides mobile

	s across multiple mobile network operators and are able to receive and send money to customers using a different mobile money platform.	growth rate in the number of users of digital financial services is around 10-20 percent and the customer retention rate is less than 50 percent. The Bank provides agent-level, mobile network level and platform-level interoperability ..	integrated Bharat Bill Payment System (BBPS) with business correspondent points to provide extensive reach in rural and semi-urban areas.		The average annual growth rate of digital financial service customers in Assam is greater than 40 percent, and the customer retention rate is above 90 percent.	network and platform level interoperability, ten seconds loan and missed call banking were introduced to pave the way for Digital 2.0.
<b>Network and Strategic Partnership</b>	In 2019, IPPB launched two insurance products in partnership with Bajaj Allianz Life Insurance Company Limited. The bank has also partnered with HDFC Bank to facilitate access	Fino Payments Bank has partnered with Bharat Petroleum Corporation Limited (BPCL) to offer banking services at BPCL outlets to accelerate proficiency in payments and	In 2019, the Bank of Baroda partnered with Paisabazaar.com to boost its presence in the home loan segment. In addition, the bank has approximately 50 partnerships with FinTech startups to	UCO bank assists in soliciting insurance business and has two channel partners in each insurance segment. Furthermore, the bank has partnered with FinTech company for lead generation i.e., initiating customer interest/enquiry into banking products and reducing the turn-around time.	IndusInd bank has partnered with Bharat Financial Inclusion Limited to serve as a distribution point for the bank thereby acting as an agent. In addition, the bank has also partnered with FinTechs for digital lending and white-label ATM	HDFC bank has collaborated with the Central and State Governments in the area of digitisation through the establishment of CSC centres in rural areas, a customised banking package for government



	to HDFC Bank's products and services.	magnify the outreach. The bank also assists the business correspondent model of the partner banks such as Andhra bank, ICICI bank, Canara bank, Syndicate bank, Union Bank of India, and IDFC First bank	provide a superior customer experience. The bank also has industry-academia partnership with IIT Bombay.		operators for enhancing the ATM network.	employees, and incubator initiatives to promote entrepreneurship. Additionally, the bank assesses innovative technological solutions through its numerous FinTech partners.
<b>Challenges</b>	As the percentage of Aadhaar cards is lower in the North-Eastern region, it is difficult for service providers to provide a seamless transaction experience using the Aadhaar	There is an inequitable distribution of banking products and services across the region due to physical connectivity infrastructure which poses challenges in the delivery of last-mile financial	Difficult terrain and infrastructure issues pose a challenge on the part of business correspondents in depositing cash collected to branches and performing other banking operations, especially in the	Very Small Aperture Terminal (VSAT) solution used for ATM penetration in areas that lack infrastructure and the reliable network gets affected during bad weather conditions. Furthermore, manpower issue affects the operation at the branch level of UCO bank in the region. Connectivity	Connectivity issues, link failure, lag in connection speed and physical connectivity act as stumbling blocks in the seamless operation of IndusInd Bank in the region. In this regard, the bank used the Knowlarity platform to	The ratio of digitally active customers of HDFC Bank in the state, as well as the region, is low, and knowledge of insurance products is also limited. The knowledge of banking among the last-mile population is

	<p>infrastructure. The issue of connectivity has been highlighted and is regarded as a significant deterrent factor in purveying digital financial services.</p>	<p>services across the region. Furthermore, the moderate customer retention rate in Assam has put to light that there exists a demand side lag for the services offered by Fino Payments Bank. Furthermore, customer onboarding and after-sales service were affected by the pandemic.</p>	<p>states of Mizoram and Meghalaya. Furthermore, slow internet speed, poor network quality caused by network congestion, and issues with banking software at agent points halt the seamless provision of banking services, especially at agent points.</p>	<p>issues including latency problems hamper demand for FinTech services and hinder the smooth delivery of financial services.</p>	<p>connect with customers of the bank amidst the pandemic.</p>	<p>minuscule In addition, the hacking issues hinder elderly and rural customers from using digital financial products. In some areas of the region, infrastructure issues such as electricity impose the limitation of link failure, which hinders efficient communication between branches.</p>
<p><b>Regulatory Framework</b></p>	<p>The official of IPPB mentioned that the connectivity issue can be resolved by increasing the flexibility of spectrum sharing</p>	<p>The official of Fino Payments Bank considered that the regulatory approach for FinTech service providers should be a</p>	<p>The official of the Bank of Baroda opined a pro-active regulatory approach for FinTech start-ups like the regulatory sandbox.</p>	<p>The official of UCO bank opined that the regulatory approach for FinTech companies should be status quo. Customers in rural areas of the region are generally unaware of the implementation of Online Dispute</p>	<p>According to the official, IndusInd bank, the regulatory approach for FinTech companies should be similar to banks. Regarding Online Dispute</p>	<p>Customers in the region lack knowledge of the Digital Ombudsman Scheme, necessitating proactive measures to improve their</p>

	regulations, and in order to safeguard customer interests, the regulatory approach for FinTech startups should be status quo i.e., the same as that for banks. For the effective execution of such measures to combat vulnerabilities associated with banking transactions, the level of awareness regarding various security schemes such as Online Dispute Resolution must be increased.	"Live and Let Live" approach, in which the products continue to develop, but the activity or product is curtailed or regulated if the risks outweigh the benefits. Moreover, awareness of Online Dispute Resolution is relatively low, necessitating an increase in understanding of such services for the benefit of the aggrieved customers.	During literacy programmes necessary knowledge regarding new guidelines such as Online Dispute Resolution, Digital Ombudsman Scheme are being imparted by the bank to promote customer-friendly and transparent ways to redress disputes. As a proactive approach customers are advised to report vulnerabilities to the bank.	Resolution for resolving disputes concerning digital payments. Emphasis has been given to customer convenience, and the necessary numbers are displayed in each bank branch in order to keep customers informed about the various redressal mechanisms. In addition, the bank has a Standardised Public Grievance Redress System that allows customers to lodge complaints online.	Resolution, the bank updates customers by displaying pertinent information on the bank's bulletin board and website; however, the procedures are not explained in detail unless the customer specifically requests them. In addition, as mandated by the regulator, the bank has implemented a 'Customer Protection Policy' for handling complaints regarding unauthorised digital transactions.	understanding of the numerous ombudsman schemes proposed by the regulator. The official of HDFC bank supported a regulatory approach similar to banks for FinTech companies and suggested that third-party service providers should have facilities in various locations across the nation where customers can cross-examine the problems faced by them.
	As IPPB has not yet received	Officials of Fino Payments	Bank of Baroda has collaborated	UCO bank has Financial Literacy	Digital literacy programmes are	The employees of HDFC Bank are

<p><b>Digital Literacy</b></p>	<p>any funding for digital financial services and monitoring and infrastructure constitute a significant challenge, the bank has not yet adopted digital financial inclusion programmes on a mass scale.</p>	<p>Bank provide the distributors and merchants with the necessary training to acquaint them with the different services provided by the bank. Furthermore, programmes to set forth necessary digital literacy among the people in rural and urban areas to attenuate digital divide has not been conducted yet.</p>	<p>with State Level Banker’s Committee Assam, Government rural departments, panchayats, agriculture department and NABARD to organise digital literacy for improving operations in the North Eastern region. Additionally, the bank sets target to onboard the new customers and existing ones into the digital banking space.</p>	<p>Counsellors who are tasked with organising financial literacy programmes throughout the state. In addition, to boost digital financial inclusion in Assam, the bank visits gram panchayats, schools and SHGs to provide customers with the information they need to make sound financial decisions in order to increase engagement among individuals.</p>	<p>being outsourced to regional or national agencies, where programmes are conducted quarterly or two to three times a year. In an effort to improve digital financial inclusion, IndusInd bank is expanding its network of ATMs in the region. In addition, to provide access to digital financial services, the bank intends to establish two-man branches in rural and underserved areas of the region.</p>	<p>equipped with information regarding digitally active and inactive customers, and as a result, they educate customers about digital banking at the branch level. The bank also organises various literacy activities through its marketing channels, inviting customers to participate via their registered mobile phone numbers.</p>
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