

The Effects of Agent Banking on the Profitability of Commercial Banks in Bangladesh

By

ZOEB HASAN

ID# 18375002

BRAC
UNIVERSITY

A thesis submitted to the Department of Economics and Social Sciences in partial fulfillment of
the requirements for the degree of M.Sc. in Applied Economics

Department of Economics and Social Sciences

Brac University

December 2019

Inspiring Excellence

© 2019. Zoeb Hasan
All rights reserved.

Declaration

It is hereby declared that

1. The thesis submitted is my own original work while completing degree at Brac University.
2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The thesis does not contain material which has been accepted or submitted, for any other degree or diploma at a university or other institution.
4. I have acknowledged all main sources of help.

Zoeb Hasan

ID# 18375002

BRAC
UNIVERSITY

Inspiring Excellence

Approval

The thesis titled “The Effects of Agent Banking on the Profitability of Commercial Banks in Bangladesh” submitted by

Zoeb Hasan (18375002)

of Summer, 2019 has been accepted as satisfactory in partial fulfillment of the requirement for the degree of M.Sc. in Applied Economics on 24 December 2019.

Examining Committee:

Supervisor:
(Member)

Dr. Iftexhar Ahmed Robin
Assistant Professor
Department of Economics and Social Sciences
Brac University

Program Coordinator:
(Member)

Dr. Salma Begum
Associate Professor
Department of Economics and Social Sciences
Brac University

External Expert Examiner:
(Member)

Dr. Md. Akhtaruzzaman
Director General
Bangladesh Institute of Bank Management (BIBM)

Departmental Head:
(Chair)

Dr. ATM Nurul Amin
Professor and Chairperson
Department of Economics and Social Sciences
Brac University

Inspiring Excellence

Abstract

The thesis examines the effects of agent banking on the profitability of commercial banks in Bangladesh. Around 1.7 billion people in the world do not have access to financial services. In Bangladesh, half of working age adults remain unbanked, of which more than 50 percent is women. Agent banking is the initial step to serve those unbanked population of Bangladesh.

The thesis has undertaken both exploratory and econometric analyses using a balanced panel dataset comprising bank level quarterly data from six commercial banks in Bangladesh which are operating full-fledged agent banking activities including both deposit mobilization and credit disbursement. The sample contains data for the period 2017Q2-2019Q2.

The exploratory analysis finds that the number of agent banking accounts for both male and female, number of agents and outlets, amount of deposits and loans and advances of agent banks have increased over the years. These indicate more unbanked people especially in the rural areas have been brought under the umbrella of banking activities. However, the exploratory analysis also reveals that deposit mobilization and credit disbursement are not balanced in agent banking. Some banks are collecting deposits/funds using their agent banking outlets but investing these funds in other areas instead of rural areas through agent banks.

The econometric analysis has been done employing a panel data regression model. Both random-effect (RE) and fixed-effect (FE) models are estimated. The Hausman specification test is performed to choose which of the models is appropriate for representing the sample data. The test result indicates the RE model is the appropriate one. The robustness check of the estimated RE model has been performed using a pooled ordinary least square (OLS) regression model. The estimated regression results show that profitability has a positive and statistically significant relationship with the amount of deposits and the number of agent banking outlets. However, credit disbursement through agents and the number of account holders do not have significant impact on the profitability perhaps due to the initial stage of agent banking in Bangladesh.

The empirical findings suggest for increased credit disbursement and deposit mobilization through agent banking outlets especially in rural areas to ensure broader financial inclusion led economic growth. More banking products should be available for the agent banking clients. Since some of the banks are using agent banking window as the source of deposit collection from

rural clients and utilize the fund for investment in urban areas, strict supervision and monitoring should be in place to ensure proper balance between deposit mobilization and credit disbursement of the agent banking so that the rural clients of agent banking units are not missing out on its benefits.

Keywords: Agent Banking, Profitability, Random-effect Model, Fixed-effect Model, Financial Inclusion.



Inspiring Excellence

Acknowledgement

First of all, I would like to express my deep gratitude to Almighty Allah for giving me the ability to complete the research report.

I am indebted to my supervisor Dr. Iftekhar Ahmed Robin, Assistant Professor, Department of Economics and Social Sciences, Brac University for his scholastic guidance, constructive criticism and untiring help for successful completion of this research report.

Finally, I would like to thank to those people who are related with making of this research report and make it a success.



Inspiring Excellence

Contents

Declaration.....	ii
Approval.....	iii
Abstract.....	iv
Acknowledgement.....	vi
List of Tables.....	x
List of Charts.....	xi
List of Acronyms.....	xii
Chapter 1: Introduction.....	1
1.1 Context of the study.....	2
1.2 Objectives.....	2
1.3 Analytical Framework and Data.....	3
1.4 Significance.....	3
1.5 Limitations.....	3
1.6 Structure of the thesis.....	3
Chapter 2: Literature Review.....	4
Chapter 3: Agent Banking: Global Scenario and Bangladesh Perspective.....	8
3.1 Agent Banking: Global Scenario.....	9
3.1.1 Status of branchless banking through Retail Agents in five different countries:.....	9
3.2 Agent Banking in Bangladesh.....	11
Chapter 4: Agent Banking: Conceptual Framework.....	14
4.1 The Concept of Agent Banking.....	15
4.2 Role of Agent banking in an economy.....	16
4.3 Importance of Agent Banking in an Economy.....	16
4.4 Benefits of Agent banking in brief.....	18
4.5 Agent Banking SWOT Analysis.....	19
Chapter 5: Agent Banking: Regulations & Procedures.....	20
5.1 Agent Banking Regulations.....	21
5.2 Agent Banking Operation Approval Process.....	22
5.2.1 Engagement in Agent Banking Activity.....	22
5.2.2 Letter of Application.....	22

5.2.3 Documents Required.....	23
5.3 Permissible Activities of an Agent.....	25
5.4 Prohibited Activities of an Agent.....	25
5.5 Key Roles and Responsibilities of Bank for Agent Banking.....	26
5.6 Liabilities of Bank Board and Management for Agent Banking.....	26
5.7 System Requirement for an agent.....	28
5.8 Agent selection criteria.....	29
5.8.1 Agent.....	29
5.8.2 Sub Agent.....	30
5.9 Eligible Entities.....	30
5.10 Non Eligibility criteria for an agent.....	31
5.11 Agent banking structure prescribed by Bangladesh Bank.....	31
5.11.1 Master Agent-Agent Banking Outlet:.....	31
5.11.2 Unit Agent:.....	32
5.11.3 Support Service Provider:.....	32
Chapter 6: Agent Banking in Bangladesh: an exploratory analysis.....	33
6.1 Agent Banking Activities in Bangladesh.....	34
6.1.1 Agents and Outlets.....	34
6.1.2 Agent banking accounts.....	35
6.1.3 Male and Female account number.....	35
6.1.4 Deposits.....	36
6.1.5 Amount of Loans and Advances.....	37
6.2 Leading banks in agent banking in Bangladesh.....	37
6.2.1 Dutch-Bangla Bank agent banking activities in Bangladesh.....	40
6.2.2 Bank Asia agent banking activities in Bangladesh.....	41
Chapter 7: Empirical Design: Methodology, Model specification and Estimation.....	42
7.1 Empirical Design: Methodology.....	43
7.1.1 Data Sources.....	43
7.1.2 Construction of the variables.....	43
7.2 Descriptive statistics of the variables.....	43
7.3 Model specification.....	44
7.4 Empirical results.....	45

7.5 Robustness check	46
Chapter 8: Conclusion and Policy Recommendations	47
References	50
Appendices.....	53
Appendix I: Definition of the variables	54
Appendix II: Regression coefficients on Bank profit	54
Appendix III: Application for the approval of Agent Banking Operation	55
Appendix IV: Information of Agent Banking Department	56
Appendix V: Information of Agent.....	56
Appendix VI: Information of Agent Banking Operation	57



Inspiring Excellence

List of Tables

Table No.	Table Title	Page No.
1.	Summary statistics of the variables	44
2.	Regression results on bank profit	45
3.	Regression results on bank profit	46



Inspiring Excellence

List of Charts

Chart No.	Chart Title	Page No.
1	Agents and Outlets, 2016Q-2019Q2	34
2	Number of Accounts of Agents and Outlets, 2016Q4-2019Q2	35
3	Number of Male and Female Accounts, 2016Q4-2019Q2	36
4	Amount of Deposits, 2016Q4-2019Q2	36
5	Amount of Loans and Advances, 2017Q3-2019Q2	37
6	Deposits Mobilization	38
7	Remittances Collection	38
8	Disbursement of Loans and Advances	39
9	Number of Accounts	39



Inspiring Excellence

List of Acronyms



DFS-	Digital Financial Service
BCP-	Business Continuity Plan
CBA-	Commercial Bank of Africa
ICT-	Information and Communication Technology
MFS-	Mobile Financial Service
MFI-	Micro-Finance Institution
FID-	Financial Inclusion Department
BRPD-	Banking Regulation and Policy Department
AML-	Anti-Money Laundering
CFT-	Combating the Financing of Terrorism
TFA-	Two Factor Authentication
CSR-	Corporate Social Responsibilities
PAD-	Payment Acceptance Devices
POS-	Point of Sale
PIN-	Personal Identification Number
UNC-	Union Digital Centre

Inspiring Excellence



Chapter 1: Introduction

Inspiring Excellence

1.1 Context of the study

Bangladesh Bank allowed commercial banks for conducting agent banking activities in 2013. According to Bangladesh Bank agent banking guideline 2013, agent banking is a limited scale banking and financial service for those living in remote areas across the country through persons (owner of the agency) under a valid agency agreement, rather than a teller or cashier. Agent banking services are provided through agents under a valid agency agreement, service agreement or a similar agreement with a commercial bank. The agent is the owner of an outlet who conducts banking transactions on behalf of a bank.

Agent banking is introduced very recently in the banking sector in Bangladesh. This exclusive banking service has already become popular to the unbanked segment of the population, who had been excluded from formal banking services, especially due to its accessibility and cost-effective banking services. Since agent banking can be offered without opening a full-fledged bank branch, this mode of banking is cost-effective and also can be available in remote areas.

Bangladesh Bank, as the central bank of the country, has taken several initiatives to broaden the financial inclusion in Bangladesh. The introduction of Agent Banking in Bangladesh in 2016 was one of the progressive initiatives to bring the unbanked especially rural people under banking network in a cost-effective manner. Bangladesh Bank has formulated necessary rules and guidelines to ensure the security and soundness of the agent banking delivery channel.

Banks traditionally provide financial services through their branch networks. In developing countries, these networks tend to be concentrated in cities. For the poor people in remote areas, access to financial services through bank branches has been severely limited. Therefore, bank and non-bank led models have been developed to deliver digital financial services (DFS), an efficient means to promote financial inclusion, which can be provided through mobile phones, point of sales (POS) etc.

1.2 Objectives

The main objective of the research is to examine whether agent banking activities has any effect on the performance of the commercial banks in Bangladesh. The study evaluates the performance of agent banking activities, particularly, how agent banking affects the mother bank's profit over the years.

1.3 Analytical Framework and Data

This thesis has done both exploratory and econometric analyses to investigate the effects of agent banking activities on the profitability of the commercial banks in Bangladesh. The study uses a balanced panel dataset comprising bank level quarterly data from six commercial banks in Bangladesh which are operating full-fledged agent banking activities including both deposit mobilization and credit disbursement. The sample contains data for the period 2017Q2-2019Q2. The data has been collected from balance sheets and income statements of the sample banks and also from the central bank of Bangladesh (Bangladesh Bank).

1.4 Significance

This study attempts to fill the gap in the banking literature by providing empirical evidence to the existing body of knowledge in agent banking in Bangladesh. The concept of agent banking is very new and there is no comprehensive study so far on agent banking activities in Bangladesh since its inception in 2016.

1.5 Limitations

Since the operation of agent banks in Bangladesh started in 2016, the scale of agent banking activities is still very scanty. As a result, the inference drawn from this study may have limitations due to small sample size.

1.6 Structure of the thesis

The thesis is organized in 8 chapters. Following the introductory chapter, which contains the context of the study, research objectives, significance and the limitations of the study, Chapter 2 provides a brief literature review of agent banking. Chapter 3 presents the global scenario of the agent banking and also the current status of agent banking in Bangladesh. Chapter 4 explains the concept of agent banking and its importance. Chapter 5 discusses the rules and regulations of Bangladesh Bank (as the central bank of the country) regarding agent banking approval process and operation procedures. Chapter 6 provides an exploratory analysis of agent banking in Bangladesh. Chapter 7 presents the methodology, empirical design, and model specification and regression analysis. Chapter 8 includes conclusion and policy recommendations.



Chapter 2: Literature Review

Inspiring Excellence

Literature on agent banking is still very scanty. Since agent banking is considered as a vital component of financial inclusion, a major obstacle to financial inclusion is cost of providing service incurred by banks in servicing low value accounts and extending banking infrastructure to underserved low-income areas. Achieving financial inclusion therefore requires innovative business models that can reduce costs and thus pave the way to profitable extension of financial services to the world's poor.

Unlike branch banking model, the costs per transaction are sufficient low in agent banking to produce positive net revenue for the bank. According to Kenya Bureau of Statistics (2011), about seven million adult rural Kenyans are either unbanked or under-banked due to high cost to maintaining the bank branches in rural Kenya (Wawira, 2013). Many financial service providers do not have branches that are close to the customers. However, the emergence of new delivery models as a way to drastically change the economics of banking to the poor. By using retail points as cash merchants (i.e., agent banking), banks, telecom companies, and other providers can offer saving services in a commercially viable way by reducing fixed costs and encouraging customers to use the service more often (Veniard et al., 2010).

NefaChiteli (2013) finds agent banking operations as a competitive strategy of commercial banks, and there is constant interaction within the environment in which they operate. Johnson et al. (2003) note that the organizations must develop new competencies as the old competencies gained are quickly eroded due to changes in both internal and external environments. The organizations must go for innovations, otherwise they would be irrelevant. The organizations require formulation of competitive strategy that refers to the positioning of a firm to maximize the value of the capabilities that distinguish it from its competitors.

In Malaysia, more than one million transactions worth more than Malaysian Ringgit (RM) 190 million had been conducted through 2,322 agency banking outlets during the pilot run of agency banking in 2012. In India, under the Business Correspondent model, banks are entitled to engage intermediaries to disburse small value credits, recover principal and interest payments, collect small value deposits, sell micro insurance or pension products and receive or deliver small value remittances. In Ghana, up to 11% of the clients who use banking services, do not have accounts with the financial institutions and instead use agency banking facilities to transact their payment services (Kumar et al., 2006).

Timothy R. Lyman et al. (2006) observe that agent banking offers banking and payment services through postal and retail outlets, including grocery stores, pharmacies, seed and fertilizer retailers, and gas stations, among others instead of using bank branches and their own field officers. For poor people, “branchless banking” through retail agents may be far more convenient and efficient than going to a bank branch. This may be the first time they have access to any formal financial services. The formal services are usually significantly safer and cheaper than informal alternatives.

Atandi (2013) opines that agent banking can offer a solution to slow pace of individual enterprise development especially in the rural areas. In fact, there is an increasing need to promote technological and institutional innovation as a means to expand financial system access and usage, including addressing infrastructure weaknesses and empowering business enterprises by developing financial literacy and financial capability programs to bring all people on board and all to participate in economic development of a country.

A recent study on the impact of agent banking on customer satisfaction reveals that most customers were satisfied with agent bank services (mean score of above 2.0). The customers said they would prefer to go to agent bank outlets other than the bank itself (Kitali et al., 2015).

The Kenya Bureau of Statistics Report (2011) reveals that more than 7 million adult rural Kenyans are either under-banked or unbanked (Wawira, 2013). This is partly because of the high cost of maintaining the bank branches and the low nature of business transactions in rural Kenya, a situation which makes opening of new branches in the rural areas a less productive venture. Consequently, mobile technology has substantially penetrated in rural Kenya and is likely to be on an upward trend in the near future. Banks and other financial institutions which have traditionally relied on physically established branches to provide banking services are now gearing towards the adoption of mobile banking services (MBS) as a form of branchless banking. Siddique (2014) finds that agent banking is very successful in different countries in Latin America, Africa and Australia and also in the United Kingdom. These countries are also gradually deploying agent banking because it reduces the operating cost of the bank.

A study on agent banking on Kenyan banking reveals divergent findings on the agency banking effect on growth of profits of commercial banks (Aduda et al., 2013). The most common position is that agency banking has a positive relationship with the growth of profits of commercial

banks. Neziyana and Daniel (2014) suggest that bank profitability would be higher if banking services can be provided to grass root level people through agent banking.

The literature review on agent banking indicates that there is no comprehensive evaluation on agent banking in Bangladesh so far. Therefore, this study intends to examine whether agent banking activities have had any impact on the profitability of the related commercial banks in Bangladesh and thus attempts to fill up the gap in the empirical literature of the agent banking in Bangladesh.



Inspiring Excellence



Chapter 3: Agent Banking: Global Scenario and Bangladesh Perspective

Inspiring Excellence

3.1 Agent Banking: Global Scenario

Agent banking – a new model of banking has become popular in recent time in different countries, such as Brazil, Peru, Colombia, Kenya, Mexico, Pakistan, the Philippines, and South Africa, Latin America is the region with the strongest development towards banking agents. The government is providing incentives for banks to reach new geographies and new client segments through banking agents. Brazil is probably the most developed market where banking agents have significantly increased financial system infrastructure. Seventy-four institutions are currently managing around 105,000 points of sale (POS) in Brazil that reach all 5,561 municipalities. The banking agent network facilitated 12.4 million new bank accounts in the past five years. Currently, the agent network comprises 56 percent of all points of sale in the Brazilian financial system. Financial institutions in other Latin-American markets such as Peru, Colombia, and Mexico have started to replicate the Brazilian model of agent banking, adjusted their regulations, and established their own banking agent networks. The other countries that have been pioneer in agent banking are Kenya, Mongolia, South Africa, and the Philippines.

3.1.1 Status of branchless banking through Retail Agents in five different countries:

3.1.1.1 Brazil

In Brazil, both public and private sector banks deliver financial services through retail agents including small supermarkets and pharmacies, post offices, and lottery kiosks (Kumar, 2006). In 2000, total 1,600 municipalities out of 5,800 lacked access to formal banking services; while all municipalities had access to these services through banking correspondents by 2003. According to the Central Bank of Brazil, nearly 58,000 banking correspondents were operating by the end of 2005. The banking correspondent model was developed in 2000 when Caixa Economica Federal gained the rights to offer bill payment services through the large national lottery outlet network (Lyman et al., 2006).¹

¹ Caixa has been using lottery outlets to distribute social benefits for 10 years. In 2000, formal recognition of banking correspondents by the Brazil Central Bank led Caixa to branch out into other services, including basic financial services. See Kumar et al. 2006.

3.1.1.2 India

In January 2006, India's central bank, the Reserve Bank of India (RBI), issued circular permitting banks to use post offices and specialized micro-finance institutions (MFIs) including nonprofit organizations (NGOs), cooperatives, and non-profitable companies as retail agents. These agents are called "business correspondents."² Although ICICI Bank (India's second largest bank)³ and several other private-sector banks had already used MFIs as retail agents for disbursing and collecting loans (Harper & Kirsten, 2006), banks now may use MFIs and post offices to perform other tasks, including collecting small-value deposits.

3.1.1.3 South Africa

In South Africa, branchless banking through retail agents is permitted only for licensed financial institutions. Nonbanks are prohibited from accepting public deposits, broadly defined, so mobile operators interested in branchless banking have created joint ventures with licensed banks to offer cell phone-based banking. WIZZIT, a four-year-old technology firm, became a division of the South African Bank of Athens to be able to offer cell phone- and card-based bank accounts for the unbanked.⁴ WIZZIT offers deposit, withdrawal, payment, and airtime purchase services through a combination of the mobile phone interface, ATMs, branches of ABSA Bank (South Africa's largest), and post offices. MTN Banking, a competitor, is a joint venture of a leading mobile operator, MTN, and Standard Bank.⁵ Neither WIZZIT nor MTN Banking uses retail agents (with the exception of post offices) to handle cash on its behalf. Still, South Africa is an important reference case because of network operators' interest in branchless banking and the strict regulatory interpretation that forced joint ventures with banks (Lyman et al., 2006).

²The RBI circular also permits "business facilitators," which assist in various outreach-related tasks on behalf of a bank, but which could not be considered retail agents as this term is used in this Focus Note, because they are not permitted to perform the cash-in/cash-out function on the bank's behalf. See Reserve Bank of India 2006.

³<http://www.icicibank.com>

⁴<http://www.wizzit.co.za>

⁵<http://www.mtnbanking.co.za>

3.1.1.4 The Philippines

Mobile network operators Globe Telecom and SMART⁶ have offered branchless banking in the Philippines since 2000. Globe Telecom's G-Cash service is an e-money account tied to a mobile phone subscriber information module (SIM card). The account can be loaded and unloaded by depositing or withdrawing cash at a wide range of retail agents and the mobile operator's own dealers. Customers can store cash (in the form of e-money), send funds from person to person, pay bills and make loan repayments, and purchase goods at shops using the e-money value in their G-Cash accounts. Most of the 1.3 million users buy airtime and send money to friends and family with the service (Lyman et al., 2006).

3.1.1.5 Kenya

Safaricom, a Vodafone affiliate and the leading mobile operator in Kenya, offers customers the M-Pesa account, which they can load and unload at retail agents in a manner similar to the G-Cash offering in the Philippines.⁷ Customers can use the M-Pesa account tied to the SIM in their cellphone to accomplish the same range of transactions as with G-Cash. Safaricom has partnered with the Commercial Bank of Africa (CBA) and a local MFI (Faulu) to pilot-test the product. A second branchless banking initiative in Kenya, called Smart Money, was launched in April 2006.⁸

This startup firm issues customers prepaid cards they can use as e-money transaction accounts. Customers can add money to their card (and the virtual e-money account that backs it), withdraw funds from it, or make payments at a supermarket chain (Lyman et al., 2006)

3.2 Agent Banking in Bangladesh

Agent banking is the latest innovation in banking services available in Bangladesh. It aims to provide formal banking services to the unbanked, including populations that have traditionally been more inaccessible. It represents another channel, like mobile financial services, promoted by the Government of Bangladesh to promote financial inclusion.

Bangladesh Bank allowed commercial banks for conducting agent banking activities in 2013. According to Bangladesh Bank agent banking guideline 2013, agent banking is a limited scale

⁶ <http://www.smart.com.ph/SMART/Value+Added+Services/Smart+Money>

⁷ http://www.vodafone.com/article/0,3029,CATEGORY_ID%253D30403%2526LANGUAGE_ID%253D0%2526CONTENT_ID%253D278612,00.html

⁸ <http://www.smartmoney.co.ke>

banking and financial service for those living in remote areas across the country through persons (owner of the agency) under a valid agency agreement, rather than a teller or cashier.

In the agent banking model of Bangladesh, the commercial bank recruits or nominates an agent, a third party owner of an outlet, who conducts banking transactions such as cash deposits, withdrawals, small value loan disbursement and recovery of loans, transfer of funds, paying bills under the government's social safety net programs, and account inquiries on behalf of the concerned bank.

Given the fact that less than a third of Bangladeshi adults had an account at a financial institution in 2014, agent banking represents a new channel for extending financial services to previously excluded Bangladeshi. In particular, its focus on rural access makes agent banking a potentially attractive channel for the populations that are often supported by the development sector, especially in agriculture and other sectors focused on rural populations.

The focus on rural agent points means that agent banking has the potential to become an alternative financial service channel for rural populations. While mobile financial service (MFS) agents are in most parts of Bangladesh, they are limited in the types of services they can offer. For example, they are not allowed to offer credit. In rural communities, this means that people often have to rely on micro-finance institutions (MFIs) and informal credit, both of which often have high interest rates. Since agent banking is backed by the bank's core banking platform, banks offering agent banking can provide a full suite of banking services on behalf of the bank. Loans offered by agent banking are often at lower interest rates, ranging from 10%-15.5%, compared to 25% - 31% for MFIs, depending on the repayment terms.

In addition, some of the other features embedded with agent banking are particularly well-suited for rural customers as well. For example, biometric verification means that individuals no longer need to remember a PIN, which is often a challenge illiterate population's face when using ATMs or MFS accounts.

Beyond the potential benefits to rural populations, agent banking also offers benefits to many developed agencies and their partners directly. While many organizations still use cash to make payments to small vendors, staff, and beneficiaries in the field, once those individuals have agent banking accounts, they could pay them directly from their head office without having to send cash to the field.

Like mobile financial services, all of the payments made by agent banking are traceable and accessible to corporate clients through transaction records and monthly bank statements. This means that they are more transparent than cash and easier to manage from a financial auditing perspective. Transactions made via agent banking, however, are more secure than those via MFS due to its use of biometrics. Since individual account holders must be biometrically authenticated before accessing their accounts, organizations that send money via this channel can be more confident that the intended recipient will be accessing the funds.

Agent banking is also interoperable. This means that a DBBL agent banking customer can send funds to a Bank Asia agent banking customer, and vice versa. Out of 21 commercial banks that has been obtained official permission from Bangladesh Bank for agent banking operation, Bank Asia and Dutch-Bangla Bank (DBBL) have captured the major market share in agent banking in Bangladesh.

Given the above, agent banking has the potential to both contribute to increased financial inclusion in Bangladesh, as well as to serve as a payment channel for development organizations. As such, it is a channel worth exploring by any development organization that makes bulk disbursements or promotes financial inclusion.

There are two major reasons as to why customers are increasingly using this channel: lesser costs of transactions and greater convenience. In Bangladesh, there are roughly six bank branches in the rural areas for every 100,000 adults. But the agent banking platforms have facilitated the customers in such a way that they need not travel too far to get banking services. Before agent banking was introduced on a large-scale, rural customers had to on average, travel seven kilometers to reach banking services. Now, the average has come down to two kilometers.

Inspiring Excellence

The logo of BRAC University is a large, light blue watermark in the background. It consists of a circular border containing the text "BRAC UNIVERSITY" in a serif font. Below the text is a stylized graphic of an open book with two pages, one in blue and one in grey.

Chapter 4: Agent Banking: Conceptual Framework

Inspiring Excellence

4.1 The Concept of Agent Banking

Agent banking services are provided by authorized banking agents. These agent points are much smaller than bank branches and are equipped with point of sales (POS) devices, mobile phones, barcode scanners, computers, and biometric devices. By reducing the overhead required to set up a bank branch and through its use of technology, agent banking allows financial institutions to reach underserved segments of the population, particularly in rural and remote areas, in a more cost effective way. The agent banking model also heavily stresses on rural access, and banks are required to have two agent points in rural communities for every one agent point they have in an urban area. According to the agent banking guideline the software of any individual agent will be connected to the core software of the bank, so transactions that will take place in agent premises will be shown in the banking system real-time and those transactional statements can be used anywhere and everywhere for different purposes of the client (Siddiquie, 2014).

Agent banking services are provided through agents under a valid agency agreement, service agreement or a similar agreement with a commercial bank. The agent is the owner of an outlet who conducts banking transactions on behalf of a bank. These retailers globally contribute expanding the distribution channels for money inclusion.

Agent banking refers to the delivery of financial services outside conventional bank branches, often using non-bank retail outlets that rely on technologies such as point of sale (POS) devices or mobile phones for real time transaction processing (Tindi & Bogonko, 2017). Globally, retailers and post offices are increasingly being utilized as important distribution channels for financial institutions. There are other models of agent banking across the world, for example, post offices are used as bank agents in Australia where clients from all banks can conduct their transactions; corner stores work as agent bank in rural France where the bank Credit Agricole uses corner stores to provide financial services; Brazil provides financial services through lottery outlets where clients receive their social payments and access their bank accounts (Kumar et al., 2006). Agent banking involves a range of technologies especially information and communication technology (ICT) in order for banks to keep track of the transactions done by their retail outlets.

Bangladesh Bank is determined to push this complimentary channel to the poor segment of the society particularly to geographically spread locations in addition to the existing bank client with

a variety of monetary services. In order to ensure the security and soundness of the planned delivery channel, Agent Banking pointers are framed by the Bangladesh Bank to allow banks to be engaged in agent banking.

4.2 Role of Agent banking in an economy

According to World Bank (2017), around 1.7 billion people in this world do not have access to financial services. In Bangladesh, half of all working age adults remain unbanked of which more than 50 percent are women. Access to financial services would help to solve some of the world's most persistent problems such as poverty and inequity. And in order to build an equitable world, we must ensure inclusive economic growth where no one should be left out.

Financial inclusion means that individuals and businesses have access to useful, affordable financial products and services that meet their financial needs in terms of transactions, payments, savings, credits and insurances delivered in a responsible and sustainable way. Agent banking has a large contribution towards financial inclusiveness in developing countries. Policy makers and regulators are demonstrating keen interest in this topic, although in most countries regulation continues to constrain the emergence of agent banking. Agent banking has yet to demonstrate pro-poor, pro-growth impacts for households, communities and national economies (Morawczynski & Pickens, 2009).

4.3 Importance of Agent Banking in an Economy

According to Ivatury and timothy (2006), agent banking could be of benefit to the clients in the following ways: lower transaction cost (closer to client's home), longer opening hours, shorter lines than in branches, more accessible for illiterates and the very poor who might feel intimidated in branches. The benefits to the agency are: increase sales additional foot traffic, differentiation from other businesses, reputation from affiliation with well-known financial institution, additional revenue from commissions and incentives, and finally to the financial institution: increased customer base and market share, increased coverage with low-cost solution in areas with potentially less number and volume of transactions, increased revenue for additional investment, interest and fee-income and improved indirect branch productivity by reducing congestion (Lyman et al, 2006).

Banking agents help financial institutions to divert existing customers from crowded branches providing a “complementary”, often more convenient channel. Other financial institutions, especially in developing markets, use agents to reach an “additional” customer segment or geography. Reaching poor clients in rural areas is often expensive for financial institutions since transaction numbers and volumes do not cover the cost of a branch. In such environment banking agents that piggy bag on existing retail infrastructure – and lower set up and running cost - can play a vital role in offering many low-income people their first-time access to a range of financial services. Also, low-income clients often feel more comfortable banking at their local store than walking into a bank branch (Juthi, 2018).

Banking agents are the backbone of providing financial services through alternate channels, i.e., performing transactions over a mobile device, most often a Hand-held terminal (POS). To enable customers to convert cash into electronic money and vice versa which can be send over their mobile device, clients will have to visit a branch, ATM or banking agent. Especially in remote and rural locations, where cash is still the most important way to pay and transact, a mobile banking service is dependent on banking agents to enable customers to effectively use the service (Juthi, 2018).

Agent banking can dramatically reduce the cost of delivering financial services to unreached people. Agent banking helps address the two biggest problems of access to finance: the cost of roll-out (physical presence) and the cost of handling low-value transactions. This is achieved by leveraging networks for existing third-party agent for cash transactions and account opening and by conducting all transactions online. This sharp cost reduction creates the opportunity to significantly increase the share of the population with access to formal finance and in particular, in rural areas where many people in developing countries live (Lyman, 2008).

Inspiring Excellence

4.4 Benefits of Agent banking in brief

For Financial Institutions or Banks

- Increased customer base and market share
- Increased coverage with low-cost solution in areas with potentially less number and volume of transactions
- Increased revenue from additional investment, interest, and fee income
- Improved indirect branch productivity by reducing congestion

For Customers

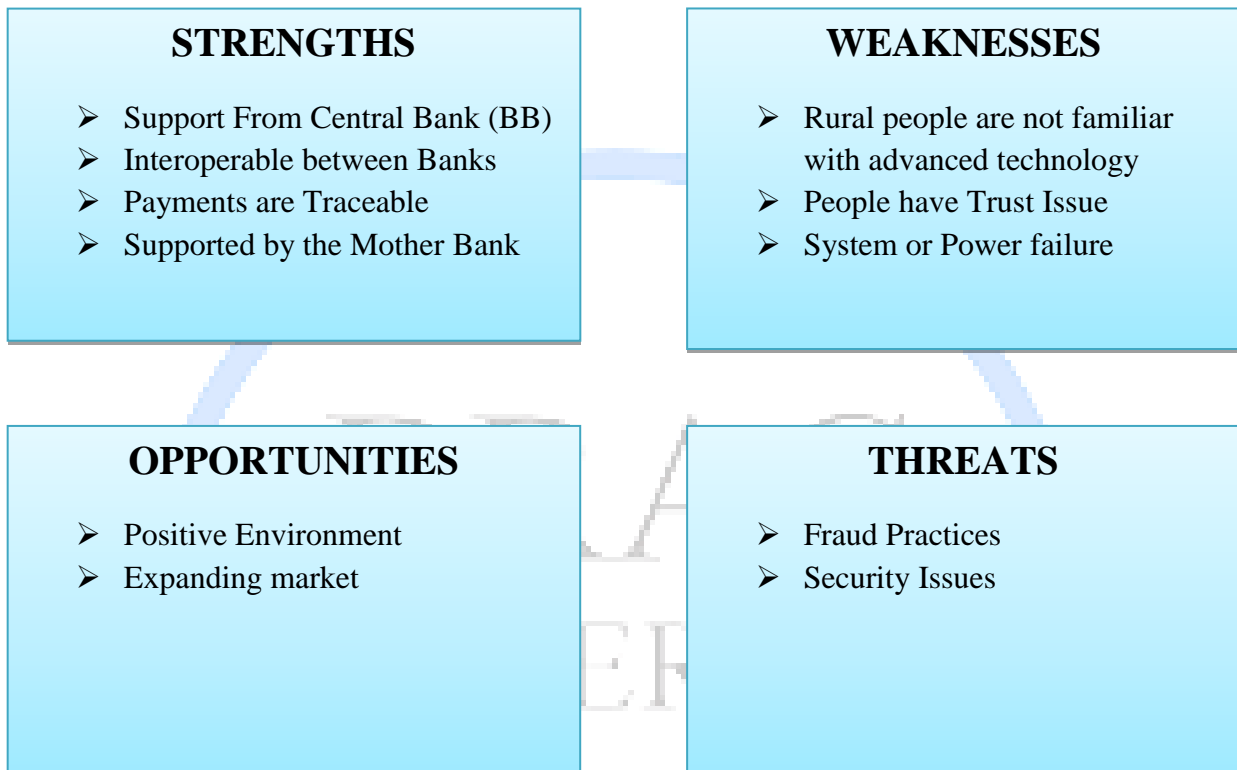
- Lower transaction cost (closer to customers home)
- Longer opening hours & Shorter lines than in branches
- More accessible for illiterates and the very poor who might feel intimidated in bank branches

For Agents

- Increased sales from additional foot-traffic
- Differentiation from other businesses
- Reputation from affiliation with well-known financial institution
- Additional revenue from commissions and incentives

Inspiring Excellence

4.5 Agent Banking SWOT Analysis



Inspiring Excellence



Chapter 5: Agent Banking: Regulations & Procedures

Inspiring Excellence

5.1 Agent Banking Regulations

1. Without having approval from Bangladesh Bank no bank shall be allowed to undertake agent banking business.
2. Banks willing to launch Agent Banking Business shall seek prior approval from Bangladesh Bank, with full details of the services including tentative implementation schedule.
3. Transaction currency will be taka only.
4. Banks shall have to submit copies of agreement(s)/MOU(s) signed between banks and their agents to Bangladesh Bank before launching the product.
5. The agents shall be selected by the bank and a list of the agents with their names and addresses shall have to be submitted to the Green Banking and CSR Department, Bangladesh Bank and will be updated on monthly basis including changes, additions and deletions, if any.
6. The inward foreign remittance (credited to Nostro Accounts of Banks) transfer arrangement through designated agents will be used only for delivery in local currency.
7. The system should not be used for any cross border outward remittance of funds.
8. Banks shall submit overall report on agent banking annually to its Board as well as to Bangladesh Bank.
9. Bangladesh Bank may withhold, suspend or cancel approval for providing agent banking services if it considers any action by any of the parties involved in the system is detrimental to the public interest.
10. Bangladesh Bank can amend the guidelines as and when required.

Inspiring Excellence

5.2 Agent Banking Operation Approval Process

5.2.1 Engagement in Agent Banking Activity

1. Banks willing to offer banking services through agent banking operation shall obtain prior approval from Bangladesh Bank. Banks also have to take prior approval for new agents and agent banking outlets separately. Banks shall ensure that all policies and procedures relating to its agent banking activity are in place.
2. Banks having license for Islamic Shariah based banking services will be allowed to provide Islamic Shariah based banking services through their agent network.
3. Bangladesh Bank will assess the bank's overall performance as well as specific performance, evaluate the bank's capacity to conduct agent banking, financial inclusion priorities and do due diligence before giving the approval.
4. Banks shall commence its agent banking operation within 3 (three) months of getting approval from Bangladesh Bank. Bangladesh Bank, considering the application of the bank, if any, may extend the commencement time for another 3 (three) months. Banks shall notify commencement of services to Banking Regulation and Policy Department (BRPD) and Financial Inclusion Department (FID) of Bangladesh Bank.

5.2.2 Letter of Application

Banks intending to start agent banking operation shall conduct a prior study and shall apply for approval (as per Appendix III) to General Manager, Banking Regulation and Policy Department (BRPD), Bangladesh Bank, Head Office, Dhaka in its letter head pad along with Appendix IV & Appendix V. While applying for approval of new agents and/or agent banking outlets, banks shall furnish data about the proposed agents/outlets (as per Appendix V), on business performance (Appendix VI) and expansion plans on agent banking and facts describing the status of compliance of the instructions of these Guidelines.

5.2.3 Documents Required

Following documents and reports are to be submitted along with the application:

1. A report assessing the risks associated with agent banking operation and the measures to be adopted to mitigate the risks;
2. A report containing the opinion of an independent audit team regarding the adaptation of internal control policy for agent banking operation;
3. A tentative implementation schedule with full details of the services; and
4. Policy for agent banking operation approved by the board of directors of the applicant bank. The policy should address the following areas:
 - Policies related to agent selection, management and training; as well as monitoring operations, compliance, conduct and quality of the services provided;
 - Customer due diligence, customer protection measures including regularly initiated mass awareness and financial education strategies;
 - Infrastructure to support agent banking including system and technological requirements;
 - Internal controls and monitoring to ensure compliance with relevant legislation and regulatory requirements;
 - Business Continuity Plan (BCP) and contingency arrangements, with specific timeframe, to ensure continuity of agent banking services in the event of disruption;
 - Internal audit and monitoring manual for agent banking operation as approved by the board of directors;
 - Business plan for agent banking operation as approved by the board of directors;
 - Detailed information (organizational history, financial strength, IT infrastructure, management structure, planned geographical and economic service areas) of agents;

- Draft of agreement between bank and agent. The draft must be vetted by the legal retainer of the bank;
- Anti-Money Laundering/Combating Financing of Terrorism policies and procedures;
- Agent training manual;
- Proposed financial literacy and education activities by the banks; and
- A feasibility study of the global view of future operations and development of the agent banking operation for a minimum period of 3 (three) years from the date of the application including:
 - a. Geographical and economic service areas of the proposed agents;
 - b. Total population and economically active population of the areas where they will operate;
 - c. Analysis of the relevant market over the past 2 (two) years, along with an estimate of the proposed agents' volume of transactions in the banks' delivery channel strategy;
 - d. Financial projections on the share of the proposed agents in the banks' business; and
 - e. Security management manual for agent premises:

Provided that Bangladesh Bank may withhold, suspend or cancel approval for providing agent banking services if it considers any action by any of the parties involved in the system is detrimental to the public interest or contradicts any Law/Regulation of the country.

Banks that are currently conducting agent banking operation with approval from Bangladesh Bank shall also prepare/update the documents stated herein and submit a copy to BRPD within 6 (six) months of the issuance of these Guidelines.

5.3 Permissible Activities of an Agent

An agent may provide any of the following services as may be specifically agreed between it and the bank:

- Cash deposit and cash withdrawal
- Inward foreign remittance disbursement
- Disbursement and repayment of loans
- Collections of bills/utility bills
- Collection of insurance premium
- Payment of retirement and social benefits
- Payment of salaries
- Transfer of funds
- Balance enquiry
- Generation and issuance of mini bank statements
- Collection of documents in relation to accounts
- Collect account opening forms, loan application forms, credit and debit card applications
- Monitoring and recovery of loans and advances sanctioned by the bank and
- Any other activity as Bangladesh Bank may prescribe from time to time

5.4 Prohibited Activities of an Agent

An agent shall not:

- Enter into agent banking contract with more than one bank
- Operate or carry out an electronic transaction when there is communication failure/error in the system
- Carry out a transaction when a transactional receipt or acknowledgement cannot be generated
- Charge customers directly any fee beyond banks' prescribed fees
- Offer any type of guarantee in favor of any customer
- Offer banking services on its own accord (provide banking services on its own account similar to those provided by it under an agency contract) or offer services that the principal is not authorized to offer

- Continue with the agency business when it has a criminal record or disciplinary case involving fraud, dishonesty or any other financial impropriety
- Provide, render or hold itself out to be providing or rendering any financial service which is not specifically permitted in the contract
- Open accounts, grant loans or carry out any appraisal function for purposes of opening an account or granting of a loan or any other facility
- Make debit or credit transactions using cheque
- Transact in foreign currency
- Representing the bank in any means to a third party without written consent from the bank and
- Be run or managed by a bank's employee or its associate

5.5 Key Roles and Responsibilities of Bank for Agent Banking

- The ultimate responsibility for agent banking lies with the banks. Banks shall endeavour to obtain accurate information from the juristic person and its officers and shall not represent to Bangladesh Bank that it was misled by the juristic person or its officers.
- Banks shall be responsible for monitoring and controlling of the agent and for providing active oversight of the agent's activities or functions.
- Banks shall pay close attention to concentration risk while granting agent banking outlets to master agent.
- Banks shall arrange regular training program for both agents and related bank officials and provide operations manuals and necessary forms/stationery to facilitate branchless banking.
- Every bank shall sensitize its agents on the provisions of these Guidelines.

5.6 Liabilities of Bank Board and Management for Agent Banking

- The board of directors of the bank shall be responsible for approving the bank's agent banking operation strategy and relevant policies.
- The board of directors shall be expected to take an explicit, informed and documented strategic decision as to whether and how the bank will provide agent banking services to its customers.

- The board of directors shall ensure that the bank has security control policies to safeguard the information, communication and technology systems and data from both internal and external threats.
- The board of directors of the bank shall be responsible for approving its own internal audit and monitoring manual for agent banking operation.
- The board of directors of the bank shall be responsible for approving its own Anti-Money Laundering (AML)/Combating the Financing of Terrorism (CFT) policies and procedures.
- It is the responsibility of the board of directors of each bank to ensure compliance with these Guidelines.
- Policies regarding operational limits shall be approved by the board of directors of the bank.
- The management of the bank shall be responsible for developing and implementing agent banking strategy and establishing an effective agent banking services management oversight.
- Management oversight encompasses the review and approval of the key aspects of the bank's security control programs and processes, and to implement security control policies and infrastructure.
- Management shall ensure effective oversight which should include a comprehensive process for identifying, managing and mitigating risks associated with reliance on third parties.
- Management shall establish a separate business unit for managing agent banking services with appropriate structure, authority and budget.
- Management must ensure that the scope and coverage of the internal audit function has been expanded to be commensurate with the increased complexity and risks inherent in branchless banking activities and the audit department shall be staffed with personnel having sufficient technical expertise to perform the expanded role.
- Management shall take steps to ensure that their bank has updated and modified where necessary, its existing risk management policies and processes to cover its current or planned agent banking services.

- Banks shall integrate the agent banking applications with the main banking systems as a part of the overall risk management appropriate for all agent banking activities.
- Management shall provide sufficient training for agents to adequately perform the operations and provide the services agreed upon, including relating to the proper identification of customers, customer service, confidentiality of the information, banking secrecy, cash security, record keeping and financial education.
- Management shall ensure that operations of an agent including cash in possession of the agent and cash in transit is adequately insured.
- Management shall ensure continuity of banking services to its clients in the event of suspension or closure of an outlet. There shall be no gap in rendering services in the event of suspension or closure.

5.7 System Requirement for an agent

With a view to establishing sound systems and vigorous infrastructure to support agent banking, Banks have to ensure the compliance with the following minimum requirements (Bangladesh Bank, 2013):

1. IT infrastructure must be
 - Able to support real-time processing
 - Able to provide a secured network including end-to-end encryption and
 - Robust in managing structural capacity to support agent banking services.
2. Payment Acceptance Devices (PAD) must be
 - Able to support minimum Two Factor Authentication(TFA)/Two-step verification for agent and customer registration
 - Able to support the requirement of end-to-end encryption based on industry standards algorithm (from end-point devices i.e. PAD to host system) and
 - Not store any sensitive customer information like PIN/Password at the end-point devices like PAD.
3. Agent Banking Application/Software must be
 - Able to support host validation for PIN/Password authentication
 - Able to provide device authentication during session activation and transaction processing at host level

- Capable to have limit management feature for agents, customer, transaction and other limit requirements
- Include transaction and system audit trail.

5.8 Agent selection criteria

5.8.1 Agent

Agent refers to the entity which will be appointed by a bank to run the agent banking activities.

Thus, criteria for being agents are stated below (Bangladesh Bank, 2017):

Agent:

- The entity must have sound financial capacity while appointing sub agents for operating agent banking activities of banks.
- The entity must have strong IT and electronic communication infrastructure for recording of transactions at bank level on real time basis and uninterrupted manner. The structure must be compatible for integrating Point of Sale (POS) with biometric features capturing and reading facilities, card reader, mobile phone, barcode scanner, Personal Identification Number (PIN) pads and similar technologies.
- An entity can act as agent for more than one bank.
- An agent must maintain a current account with the contracting bank since the date of agreement. The contracting bank will provide an overdraft/credit facility to each agent. The credit limit to an agent will depend upon the number of sub-agents under his authority. The limit will be not more than Tk. 100,000/- (One Lakh) per sub-agent. That means, if any agent has 10 (ten) sub-agents under his jurisdiction, the credit limit to that agent will be Tk. 10,00,000/- (Ten Lakh).
- An agent or owner(s)/director(s) of the entity acting as agent cannot be a loan defaulter or ensure that it has not been convicted under any criminal proceedings before.
- According to the Section 26(ga) of the Banking Companies Act, 1991, 'bank related person' cannot be appointed as agent.

5.8.2 Sub Agent

Sub Agent is the entity which will work under the agent and run the agent banking activities in a specific outlet of bank at the customer end point.

Thus, criteria for being sub agents are stated below(Bangladesh Bank, 2017):

Sub agents/outlet:

- Sub agent must have a physical infrastructure (outlet) to operate agent banking. The infrastructure must be sufficient to have at least one laptop/desktop computer, internet network, electricity back up and a locker/vault. Additional POS/card reader/ barcode scanner/ PIN pads to be added if the system requires.
- The sub agent must have at least 2 full time persons (a manager and a teller) for this purpose and 1 counter for cash transaction.
- An entity/individual can act as sub agent and open a outlet for only one bank.
- According to the Section 26(ga) of the Banking Companies Act, 1991, 'bank related person' cannot be appointed as sub-agent.
- Sub-agents will be allowed to pursue maximum two (02) transactions (deposit and withdrawal) per client per day. Withdrawal limit per transaction of each client will be restricted to Tk. 50,000.00 (Fifty Thousand) and there will be no limit on number or volume of transaction(s) for inward remittance(s).

5.9 Eligible Entities

The Banks may engage the following persons/ entities as their Agent:

- MFIs regulated by Microcredit Regulatory Authority of Bangladesh
- NGOs registered with Social Welfare Directorate
- Societies registered under the Societies Registration Act, 1860
- Cooperative Societies formed and controlled/supervised under the Cooperative Society Act, 2001
- Government offices having branch/unit offices
- Courier and mailing service companies registered under Ministry of Posts & Telecommunications
- Companies registered under the Companies Act, 1994

- Agents of mobile network operators that fulfills the eligibility criteria as laid down in these Guidelines
- Local government institutions
- Union Digital Centre (UDC)
- Agents of insurance companies that fulfill the eligibility criteria as laid down in these Guidelines
- Any business entity having trade licenses from eligible authorities that fulfills the eligibility criteria as laid down in these Guidelines and
- Any other entity which Bangladesh Bank may prescribe or authorize.

5.10 Non Eligibility criteria for an agent

The Banks can not engage the following persons/ entities as their Agent:

- Bank related persons as defined in section 26(ga) of the Bank-Company Act, 1991. Bank officials will not be eligible to become an agent in the same bank within 1 (one) year of his/her retirement or resignation.
- Defaulters with any bank or financial institution.
- Bankrupts.
- Convicted by a court of law, up to 3 (three) years after completion of sentences or penalties.
- Under investigation for any criminal charges.
- Under investigation or convicted of money laundering or terrorist financing activities.
- Under investigation of the Anti-Corruption Commission.

5.11 Agent banking structure prescribed by Bangladesh Bank

Banks should structure its agent banking services according to its business strategies following any one or combination of the following structures(Bangladesh Bank, 2017):

5.11.1 Master Agent-Agent Banking Outlet:

In this structure banks may enter into contract with an entity having multiple branch offices or outlets, either owned or otherwise engaged legally by it, willing to operate agent banking services in the branch offices or outlets.

Dutch Bangla Bank has introduced the distribution model for Agent Banking operation. They have partnered with master agents who work as their distributor. Master agents help to source agent banking outlets in popular bazar areas in align with Bank own field force monitoring. This distribution model has helped to establish agent outlets all over Bangladesh in a much easier way. They have outlets even in the remote areas such as Monpura, Swandip and Hatiya.

5.11.2 Unit Agent:

Banks may enter into contract with eligible entity willing to provide banking services exclusively in one outlet only.

5.11.3 Support Service Provider:

An entity contracted by banks for providing technological solutions and other support services to its agent banking operation.



Inspiring Excellence

The logo of BRAC University is a large, light blue watermark in the background. It consists of a circular arc at the top, the text 'BRAC UNIVERSITY' in a serif font across the middle, and a stylized emblem at the bottom that resembles an open book or a pair of wings.

**Chapter 6: Agent Banking in Bangladesh: an
exploratory analysis**

Inspiring Excellence

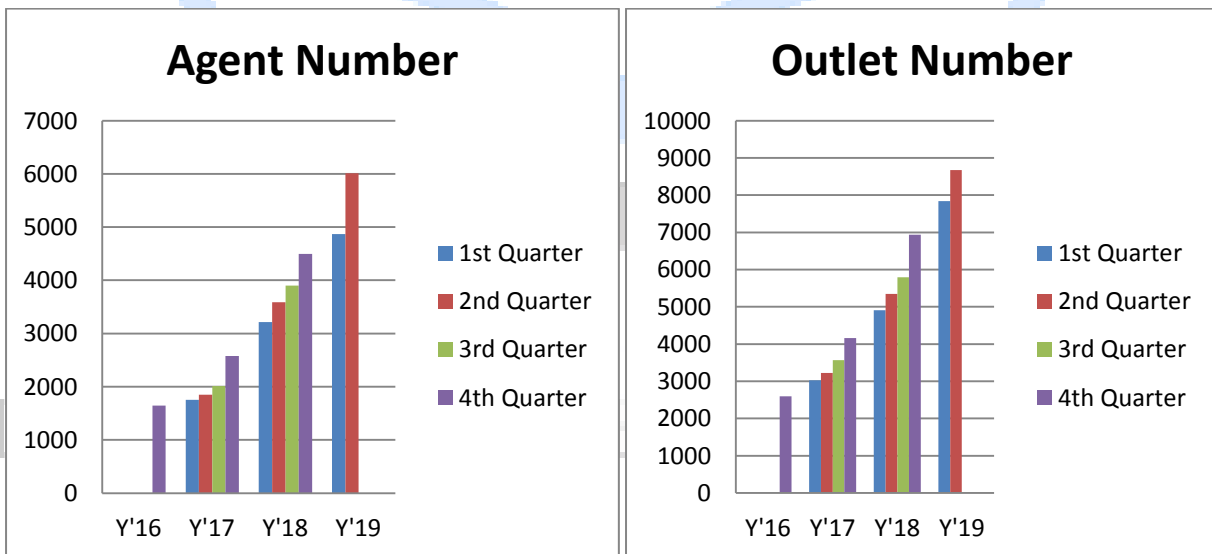
6.1 Agent Banking Activities in Bangladesh

Bangladesh Bank started agent banking in 2013 in order to reach the doorstep of rural people with banking services who are excluded from such services. This financial inclusion process is vital for attaining inclusive economic growth and also to achieve sustainable development goals 2030. As of June 2019, Bangladesh Bank permitted 21 commercial banks for agent banking, of which 19 banks have started operation already. Bank Asia is the first bank to start agent banking in Bangladesh. At present, both Dutch-Bangla bank and Bank Asia are the leading providers of Agent Banking services. The sections below demonstrate the performance of agent banking services in Bangladesh during the sample period, 2016Q4 - 2019Q2.

6.1.1 Agents and Outlets

The activities of agent banking services have been gradually increasing over the years. Both the number of agents and outlets increased significantly. Chart 1 shows the increasing trend in agent and outlet numbers in Bangladesh during the sample period 2016Q4 - 2019Q2. The number of agents was 1646 at Q4 in 2016 which increased to 6013 at Q2 in 2019. Similarly, the number of outlets was 2601 at Q4 in 2016 which increased to 8671 at Q2 in 2019.

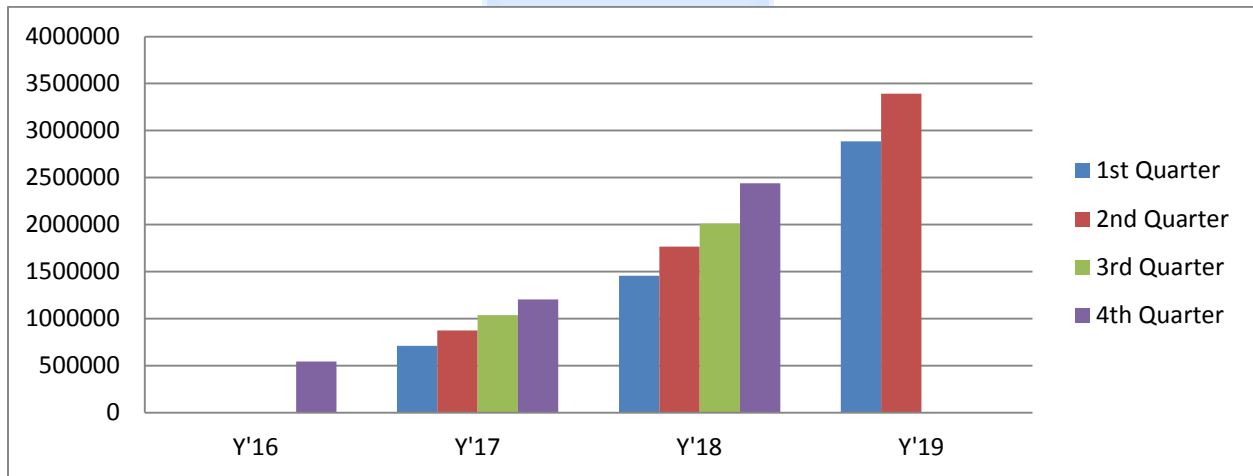
Chart 1: Agents and Outlets, 2016Q4 - 2019Q2



6.1.2 Agent banking accounts

The number of accounts of agent banks has been increasing over the years. Chart 2 demonstrates the increasing trend in the number of accounts of agent banks in Bangladesh during the sample period 2016Q4 - 2019Q2.

Chart 2: Number of Accounts of Agents and Outlets, 2016Q4 - 2019Q2

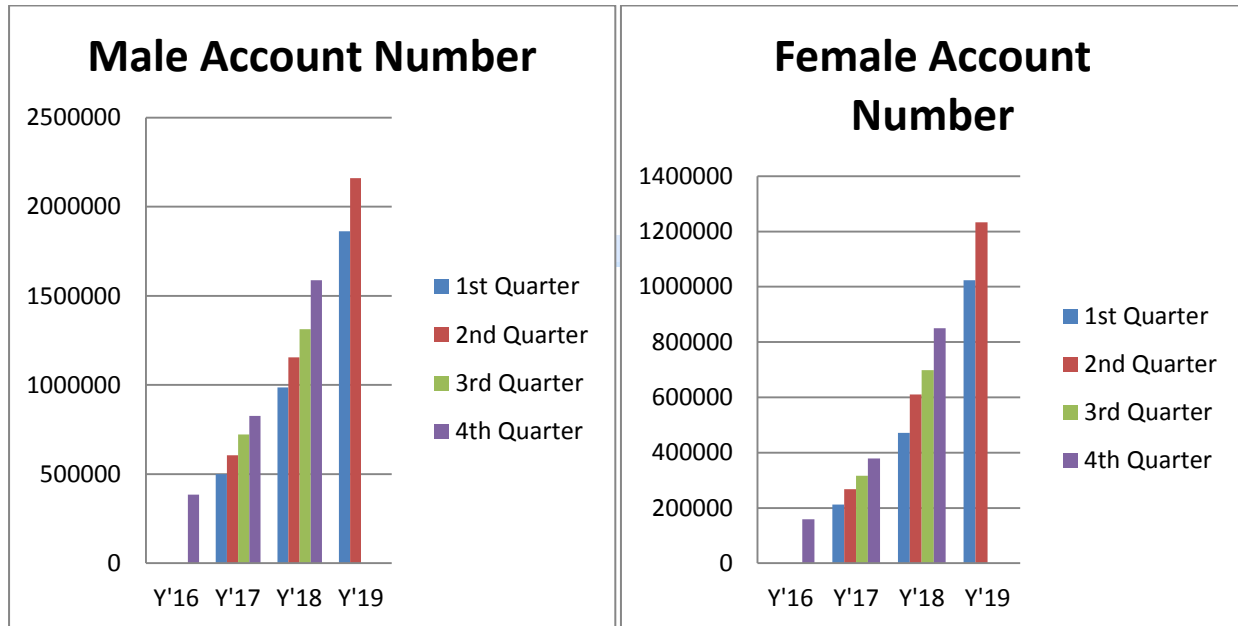


6.1.3 Male and Female account number

Both male and female accounts are increasing over the years. The male account number increased to 2.16 million at end-June 2019 while the account number was 0.39 million at end-December 2016. The female account number increased to 1.23 million at end-June 2019 from 0.16 million at end-December 2016. Chart 3 shows the increased trend in both male and female accounts during the sample period 2016Q4 - 2019Q2.

Inspiring Excellence

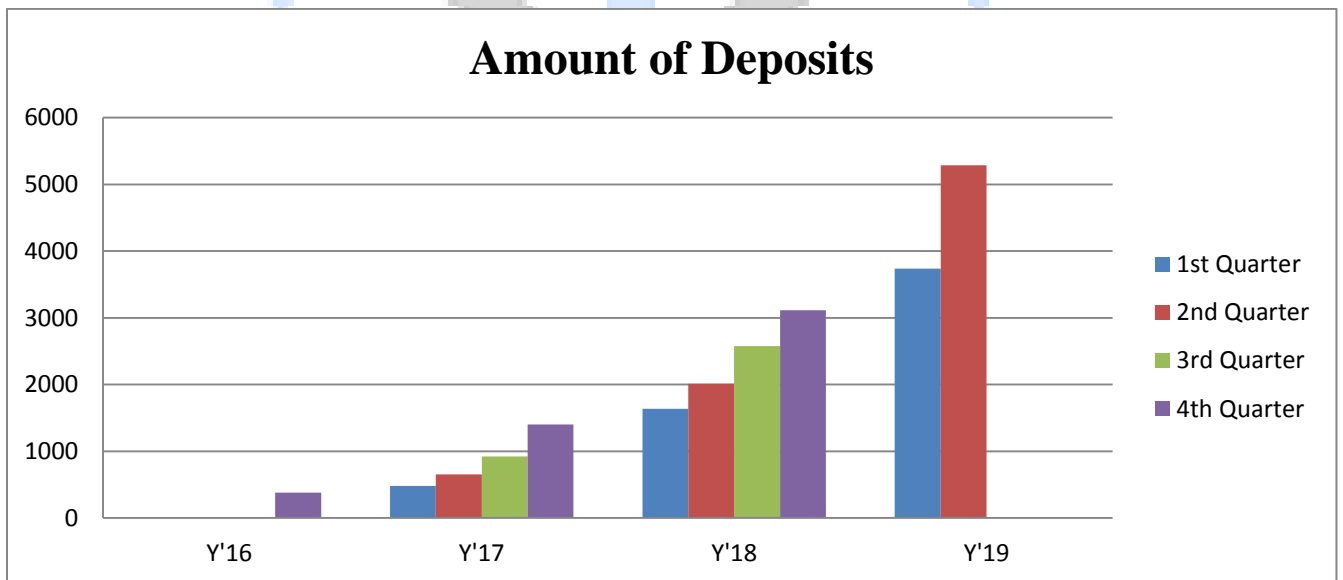
Chart 3: Number of Male and Female accounts, 2016Q4 - 2019Q2



6.1.4 Deposits

The amount of total deposit of agent banks has been increased significantly over the years. Chart 4 shows the increasing trend in the amount of deposits of agent banks in Bangladesh during the sample period 2016Q4 - 2019Q2. The amount of deposits increased to BDT 5284.46 crore at end-June 2019 from BDT 380.68 crores at end-December 2016.

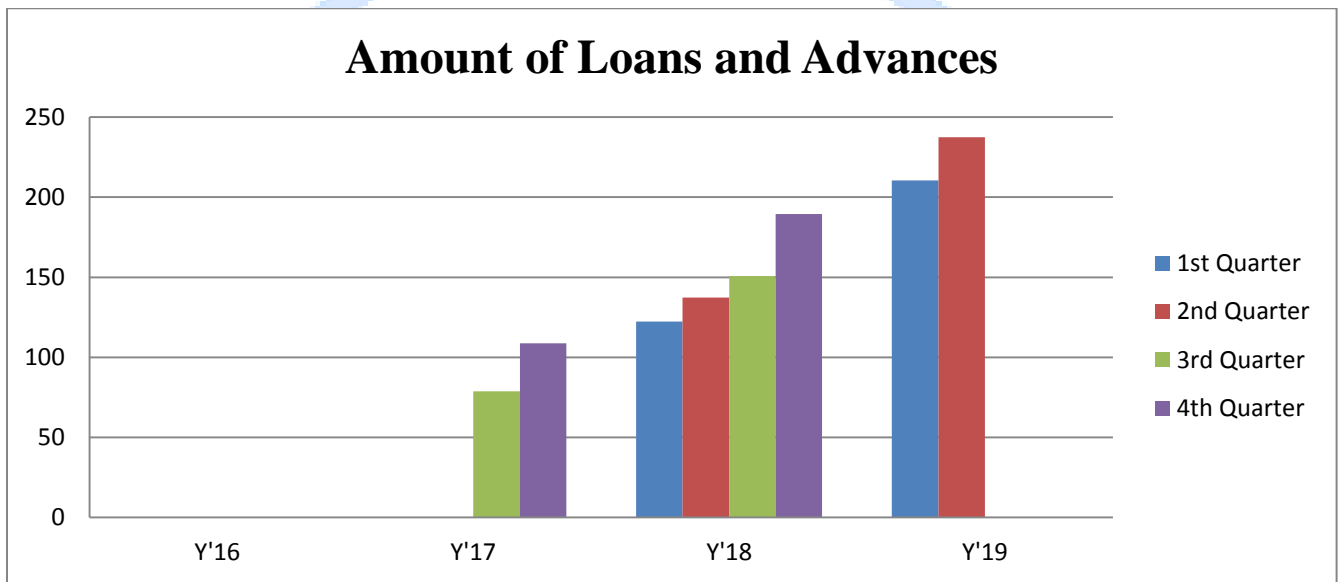
Chart 4: Amount of Deposits, 2016Q4 - 2019Q2



6.1.5 Amount of Loans and Advances

The total amount of loans and advances of agent banks has been increased significantly over the years. The total amount of loans and advances increased to BDT 2.37crores at end-June 2019 from BDT 0.79 crores at end-September 2017. Chart 5 demonstrates the increasing trend in the total amount of loans and advance of agent banks in Bangladesh during the sample period 2017Q3 - 2019Q2.

Chart 5: Amount of Loans and Advances, 2017Q3 - 2019Q2



6.2 Leading banks in agent banking in Bangladesh

A total of 8671 agent outlets have been opened so far by the commercial banks that are given permission for agent banking in Bangladesh. The agent bank outlets have covered only 14,500 villages out of 86,000 villages in Bangladesh. According to the field survey data of Bangladesh Institute of Bank Management (BIBM), there are two existing models for agent banking. Most of the banks follow the traditional approach: Bank-Branch-Agent/Partner-Teller-Customer.

The charts below demonstrate the different activities of agent banks, such as deposit mobilization, disbursement of loans and advances, remittance collection and accounts by leading commercial banks in Bangladesh.

Chart 6: Deposit Mobilization

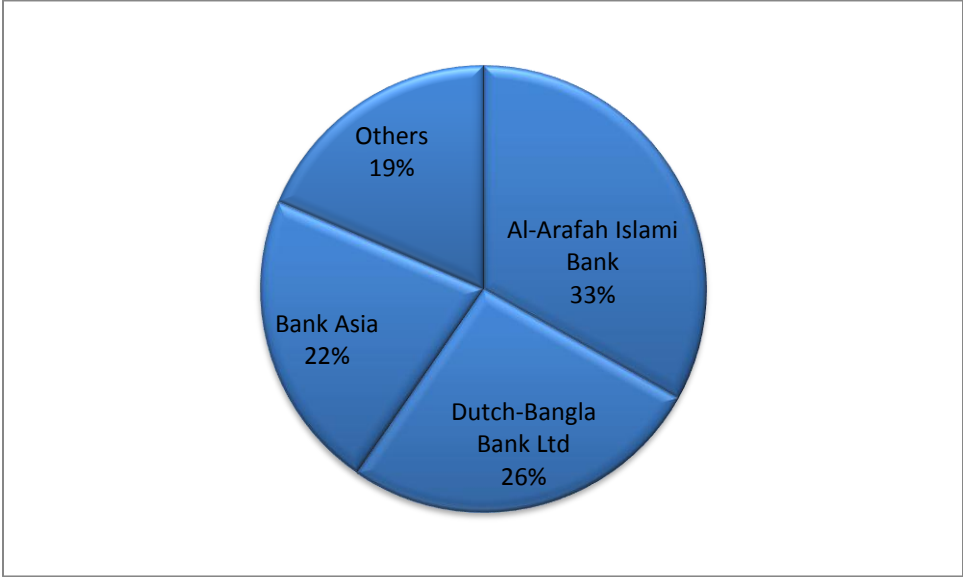


Chart 6 shows that Al-Arafah Islami Bank is leading in deposit mobilization through agent banking which is 33%, followed by Dutch-Bangla Bank 26% and Bank Asia 22% of the total deposit mobilization by the agent banks in Bangladesh.

Chart 7: Remittances Collection

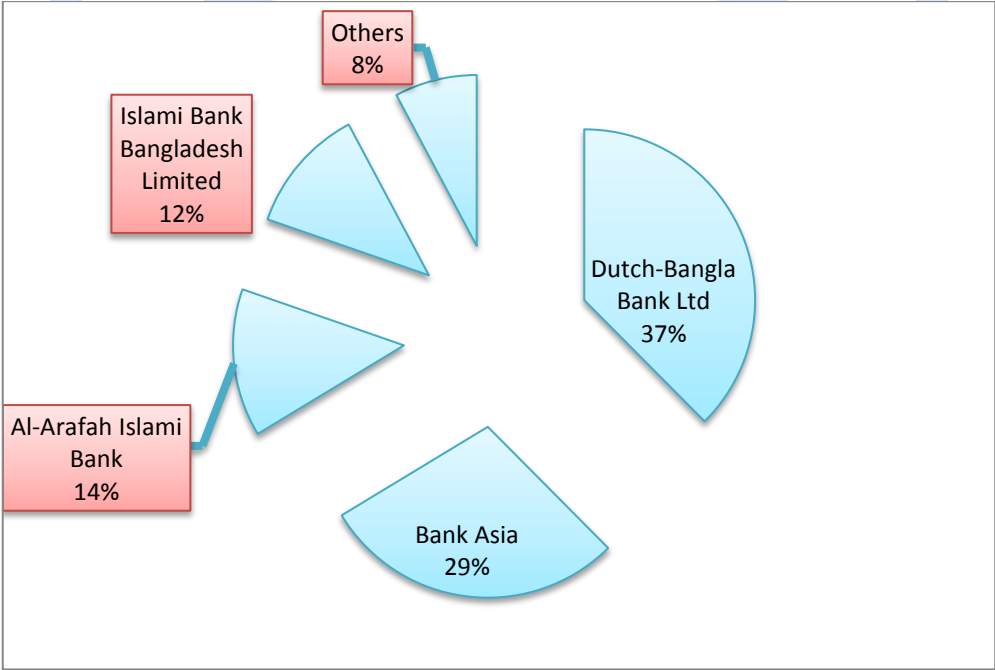


Chart 7 depicts that Dutch-Bangla Bank is leading in remittance collection through agent banking which is 37%, followed by Bank Asia 29%, Al-ArafahIslami Bank 14% and Islami Bank Bangladesh 12% of the total remittances collected by the agent banks in Bangladesh.

Chart 8: Disbursement of Loans & Advances

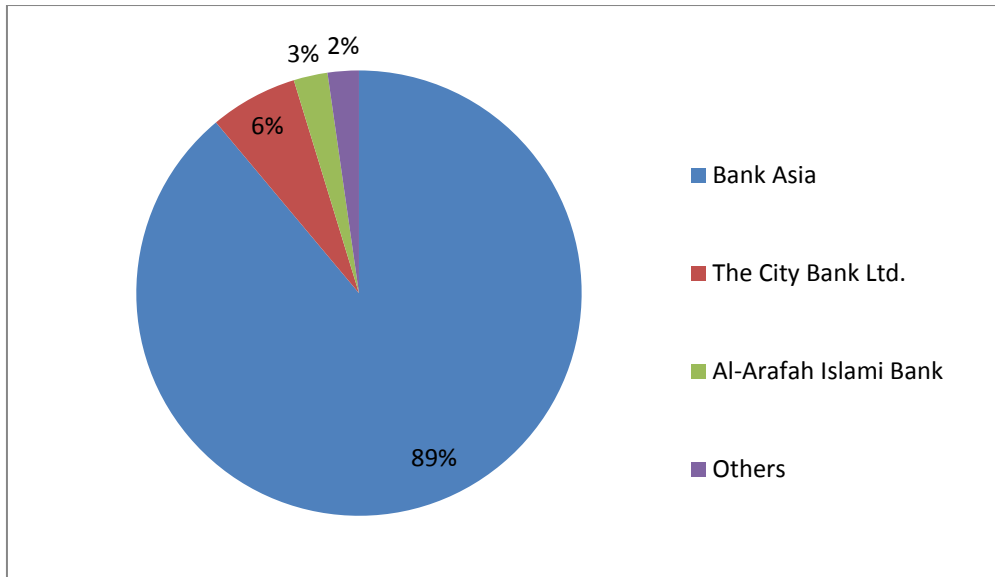


Chart 8 reveals that Bank Asia is leading in disbursing loans and advances through agent banking units which is 89%, followed by Bank Asia 29%, The City Bank 6%, Al-ArafahIslami Bank 3% of the total loan disbursement by the agent banks in Bangladesh.

Chart 9: Number of Accounts

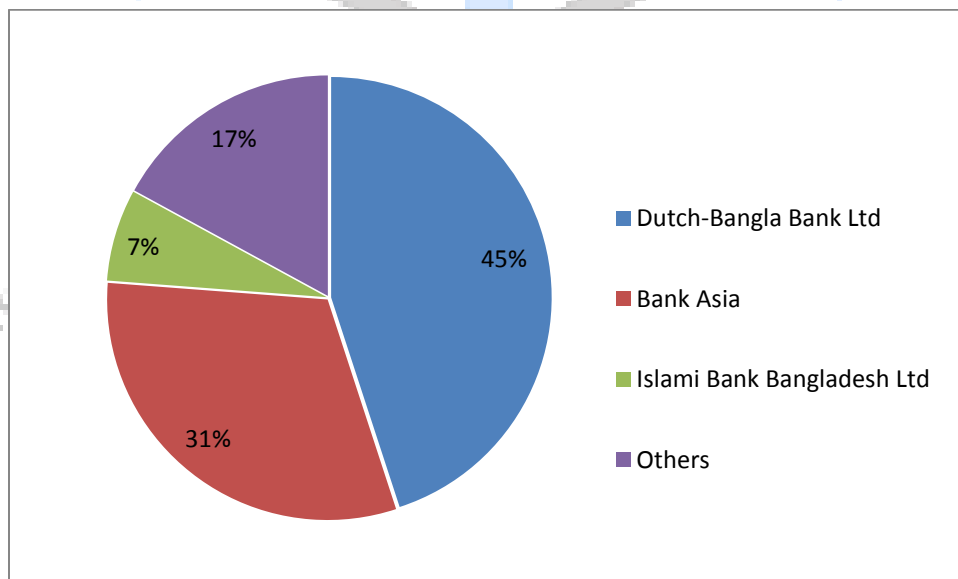


Chart 9 shows that Dutch Bangla Bank has opened the highest number of accounts through agent banking units which is 45%, while Bank Asia has opened 31% of the total accounts opened by the agent banks in Bangladesh.

The exploratory analysis reveals that deposit mobilization and credit disbursement are not properly balanced in agent banking. Some banks are collecting deposits/funds using their agent banking outlets but investing these funds in other areas instead of rural areas through agent banks. However, Bank Asia is an exception where credit disbursement through agent banking outlets is the highest in the industry, 89% of the total credit disbursement by the agent banking.

6.2.1 Dutch-Bangla Bank agent banking activities in Bangladesh

DBBL started its agent banking services four and a half years ago. Currently, it has the highest number of agent banking customers, 15.38 lacs which is about 45 percent of the total. The bank has 2,953 agent outlets across the country. The DBBL agent banking network has covered in 480 Upazilas of 64 districts. 81% of their agent banking activities occurs in rural areas while 19 percent takes place in urban regions. A major segment of customers of these outlets are rickshaw-pullers, CNG drivers and garments workers, who are not getting formal banking services.

DBBL encourage women to take up entrepreneurship as an occupation. DBBL started 'UthanBoithok,' to encourage rural customers to save money in accounts instead of spending all their earnings. DBBL maintains a 7: 1 policy, thereby establishing seven branches in rural areas for every one branch opened in urban area.

DBBL agent banking services include deposits, withdrawals, fund transfers, DPS, FDR, disbursements, bill payment, merchant payment, foreign remittance and loan disbursement. They have 450 master agents who are in charge of all the outlets. Customers can use person-to-person (P2P), person-to-business (P2B), Person 2 government (P2G) or even government-to-person (G2P) services at their agent banking locations. 50 percent of their Agent Banking customers are first time users of banking services. DBBL have also introduced four loan products through agent banking channel: “JokhonTokhon”, Term Loan, SME and Home Loan named “Thikana”.

The share of DBBL agent banking deposits is 26% of the total deposits in agent banking. They are also the highest in remittance earnings through agent banking. Currently, about 7.0 million

DBBL core banking customers also can get all the banking facilities using their agent outlets. Low-income groups can even open accounts with BDT 10 through agent banking. Accounts are available to both literate and illiterate people, made possible by their fingerprint registration process. Deposit Premium Schemes (DPS) are usually activated with a monthly payment of BDT 500, but their agent banking facilities provide them at a rate of just BDT 100 per month.

Currently, DBBL has 269 agent banking outlets in Dhaka City. These outlets have 80,000 accounts totaling deposits up to BDT 50 crores. Also they have seven such outlets based in remote char areas, where deposits have totaled BDT 8.50 crores.

6.2.2 Bank Asia agent banking activities in Bangladesh

Bank Asia disbursed BDT 211 crores loans and advances through its agent banking units which is 89 percent of the total loan disbursement of agent banks in Bangladesh. The ratio of loan repayment is better in rural areas than in urban ones.

Bank Asia is focusing on creating more lending products for rural clients, for example small or affordable housing loans. Bank Asia has set a goal for 50 percent loan disbursement of what would be mobilized as deposits within next year and 100 percent by 2021 through agent banking.

Inspiring Excellence



Chapter 7: Empirical Design: Methodology, Model specification and Estimation

Inspiring Excellence

7.1 Empirical Design: Methodology

The study estimates a panel data regression model using bank-level quarterly data for the period 2017Q2-2019Q2. We include data of six commercial banks that have full-fledged agent banking activities both deposit mobilization and credit disbursement. The sample banks are Dutch-Bangla bank, Bank Asia, Al-ArafahIslami bank, Modhumoti bank, Mutual Trust bank, The city bank. We construct a unique balanced panel data and estimate a regression model to examine whether agent banking activities have had any impact on the profitability of the related commercial banks. The Hausman specification test has been undertaken to select the appropriate model for the sample.

7.1.1 Data Sources

The data has been collected from balance sheets and income statements of the sample banks and also from the central bank of Bangladesh (Bangladesh Bank). The study uses a unique balanced panel data set constructed from the balance sheets, income statements and other financial statements of the sample banks. The sample contains bank-level quarterly data for the period 2017Q2-2019Q2 for six major commercial banks in Bangladesh which are operating full-fledged agent banking activities particularly both deposit mobilization and credit disbursement.

7.1.2 Construction of the variables

The study examines the effects of agent banking activities on the profitability of the sample commercial banks. In the regression analysis, the net profit after tax of the mother bank is considered as the dependent variable, while independent variables are: total credit, total deposit, number of agent banking outlets and number of total accounts of agent banks. The detail definitions of the variables are presented in appendix I.

7.2 Descriptive statistics of the variables

Table 1 presents the summary statistics of the variables considered for the empirical estimation.

Table 1: Summary statistics of the variables

	Mean	S.E	Min	Max
Dependent Variables				
Net Profit (Pr) in logarithm	6.219	0.634	4.127	7.341
Independent Variables				
Total Credit in logarithm (TC)	321.098	845.527	0	5061
Total Deposit in logarithm (TD)	6.763	2.151	2.054	9.547
No. of Agent Bank outlets (OUT)	5.538	1.701	0.693	7.993
No. of Accounts (AC)	11.139	2.024	5.513	14.246

Source: Author's calculation.

7.3 Model specification

The panel regression model is expressed as:

$$Z_{it} = \beta_i + \gamma Y_{it} + \nu_{it} \quad (1)$$

where Z_{it} represents the net profit for banks i . Y_{it} indicates the selected explanatory variables, ν_{it} denotes the error term, β is the constant term and γ is the vector of regression coefficients.

The empirical model to be estimated is as follows:

$$z_{it} = \beta_0 + \gamma_1 TC + \gamma_2 TD + \gamma_3 AOUT + \gamma_4 AC + e_{it} \quad (2)$$

where, z_{it} is expressed as net profit for banks i . The explanatory variables are total credit disbursed by agent banking units (TC), total deposit mobilized by agent banking units (TD), number of agent banking outlets (AOUT) and the number of accounts in operation with agent banks (AC). β is the constant term and γ is the vector of coefficients and e denotes the error term.

Both random-effect (RE) and fixed-effect (FE) models are estimated for Equation (2). The Hausman specification test is performed to choose which of the models is appropriate for representing the sample data. The test result indicates the RE model is the appropriate one (the

probability for the λ^2 -statistic is given in Appendix II). The results for the RE model are presented in the text (Table 2). The full regression results for both the FE model and the RE model are presented in Appendix II.

7.4 Empirical results

Table 2 reports the results for the estimated random effect regression model. The model fits the panel data reasonably well. The Wald-test indicates fine goodness of fit. The probability values for Wald statistic for the regression provides strong significance level as shown in Table 2.

The results show a positive and statistically significant relationship between total deposit (TD) and bank profit. This may happen as the deposit mobilized by the agent banks is eventually used by the mother bank for investment, i.e., converting it into interest earning assets (e.g., loans and advances) and thus increase the bank profit. Similarly, the statistically significant relationship between the number of agent banking outlets and bank profit indicates that more profit can be made through expansion of agent banking activities using their outlets. For example, the more the outlets the more deposit mobilization would be at a lower cost. Therefore, the bank would be able to utilize such low cost fund for investment and thus increases profit.

Table 2: Regression results on bank profit

	Coefficient	S.E
Total Credit (TC)	-0.001	0.000
Total Deposit (TD)	0.228*	0.130
No. of Agent banking Outlets (AOUT)	0.605*	0.343
No. of Accounts (AC)	-0.276	0.292
R-squared	0.261	
Wald Chi-square	16.91	
Probability (Chi-square)	0.004	
Total Observations	54	

Source: Authors' estimation using STATA.

***, ** and * denote statistical significance level at 1%, 5% and 10% respectively.

However, credit disbursement through agents and the number of accounts holders do not have any significant impact on bank profit as the estimated coefficients for total credit and the number

of accounts are not statistically significant. One possible reason for such insignificant relationship in credit disbursement is very small amount due to the initial stage of agent operation in Bangladesh and some of the banks are using agent banking window as the source of deposit collection from rural clients and utilize the fund for investment in urban areas. But the ratio of loan repayment is better in rural areas than in urban ones.

7.5 Robustness check

To check the robustness of the results in Section 7.4, a pooled ordinary least square (OLS) regression model is estimated using the sample data. Table 3 reports the estimated results obtained from the OLS regression. It is evident from the table 3 that the sign, magnitude and the level of statistical significance of the estimated coefficients are mostly very much similar to the coefficients obtained from estimating the random-effect model in Table 2. As an exception, we find an insignificant relationship between the number of agent banking outlets and bank profit in the OLS regression, which is unlike the random-effect model. However, the magnitude and sign of the estimated coefficient for the number of outlets are similar in both the estimated models.

Table 3: Regression results on bank profit

	Coefficient	S.E
Total Credit (TC)	-0.001	0.000
Total Deposit (TD)	0.228**	0.091
No. of Agent banking Outlets (AOUT)	0.605	0.382
No. of Accounts (AC)	-0.276	0.244
R-squared	0.261	
Probability (F)	0.000	
Total Observations	54	

Source: Authors' estimation using STATA.

***, ** and * denote statistical significance level at 1%, 5% and 10% respectively.



Chapter 8: Conclusion and Policy Recommendations

Inspiring Excellence

This thesis examines the effects of agent banking on the profitability of the commercial banks in Bangladesh. The study has done both exploratory and econometric analyses using a balanced panel dataset comprising bank level quarterly data from six commercial banks in Bangladesh which are operating full-fledged agent banking activities including both deposit mobilization and credit disbursement. The sample contains data for the period 2017Q2-2019Q2.

The exploratory analysis finds that the number of agent banking accounts both male and female, number of agents and outlets, amount of deposits and loans and advances of agent banks have increased over the years. These indicate more unbanked people especially in the rural areas have been brought under the umbrella of banking activities. However, the exploratory analysis also reveals that deposit mobilization and credit disbursement are not balanced in agent banking. Some banks are collecting deposits/funds using their agent banking outlets but investing these funds in other areas instead of rural areas through agent banks.

The econometric analysis has been done employing a panel data regression model. Both random-effect (RE) and fixed-effect (FE) models are estimated. The Hausman specification test is performed to choose which of the models is appropriate for representing the sample data. The test result indicates the RE model is the appropriate one. The robustness check of the estimated RE model has been performed using a pooled ordinary least square (OLS) regression model.

The estimated regression results show that profitability has a positive and statistically significant relationship with the amount of deposits and the number of agent banking outlets. However, credit disbursement through agents and the number of account holders do not have significant impact on the profitability perhaps due to the initial stage of agent banking in Bangladesh.

The empirical findings suggest for increased credit disbursement and deposit mobilization through agent banking outlets especially in rural areas to ensure broader financial inclusion led economic growth. More banking products should be available for the agent banking clients. Since some of the banks are using agent banking window as the source of deposit collection from rural clients and utilize the fund for investment in urban areas, strict supervision and monitoring should be in place to ensure proper balance between deposit mobilization and credit disbursement of the agent banking so that the rural clients of agent banking units are not missing out on its benefits. Because this imbalance created by banks would adversely affect the rural economy in the long run. Bangladesh Bank as the regulatory authority of the banking sector

should be vigilant in this regard. Moreover, sufficient information especially about the different banking products and services should be available to the agent banking customers so that they are well informed regarding the decisions made related to borrowings and investments.

Banks should ensure adequate security measures in agent banking. For example, use of insurance service providers to safeguard customers' money in agent outlets and physical reinforcement. Banks should be cautious in selecting agents and implement the central bank guidelines in this regard. In this case, Bangladesh bank can organize more trainings and seminars in order to educate the stakeholders of the agent banking regarding the rules and regulations, security measures and other requirements of agent banking. Banks also should make advertisement; organize seminars, events and other promotional activities to raise public awareness and interests especially among the rural unbanked population about the agent banking activities. More banks should come forward to obtain license for agent banking and also Bangladesh Bank should encourage banks in this regard in order to increase agent banking coverage in different geographical locations particularly in remote areas of the country.

Inspiring Excellence



References

Inspiring Excellence

- Adib, M. S. (2015). Agent Banking and Its Prospects in Bangladesh. Dhaka: BRAC University
- Aduda, J., Kiragu, P., & Ndwiga, J. M. (2013). The Relationship between Agency Banking and Financial Performance of Commercial Banks in Kenya. *Journal of Finance and Investment Analysis*, 2(4), 97-117.
- Ariftokymc. (2018). Agent Banking in Bangladesh. *Economy & Finance*.
- Atandi, F. G. (2013). Challenges of agent banking experiences in Kenya. *International Journal of Academic Research in Business and Social Sciences*, 3(8), 397-412.
- Bangladesh Bank. (2013). *Bangladesh Bank Regulation & Guideline*. Dhaka: Bangladesh Bank
- Bangladesh Bank. (2017). *Bangladesh Bank Regulation & Guideline*. Dhaka: Bangladesh Bank
- Bersudskaya, V., & McCaffrey, M. (2017). The True Size of Agent Networks in Leading Digital Finance Countries. *HELIX Institute of Digital Finance*.
- Chiteli, N. (2013). Agent Banking Operations as a Competitive Strategy of Commercial Banks in Kisumu City. *International Journal of Business and Social Science*, 4(13), 306-324.
- Harper, M., & Kirsten, M. (2006). ICICI Bank and Microfinance linkages in India. *ResearchGate*, 17 [1], 30-39.
- Johnson, G., Scholes, K., & Whittington, R. (2004). Exploring Corporate Strategy. *Financial Times*.
- Juthi, J. A. (2018). Agent Banking in Bangladesh. Dhaka: Jahangirnagar University
- kitali, M. C., Chepkulei, B., & Shibairo, P. (2015, June). The Impact of Agency Banking on Customer Satisfaction: A Survey on Agent Banks in Kenya. *International Journal of Economics, Commerce and Management*, 3(6), 691-714.
- Kumar, A., Nair, A., Parsons, A., & Urdapilleta, E. (2006). Expanding Bank Outreach through Retail Partnerships : Correspondent Banking in Brazil. *IDEAS*.
- Kumar, A., Nair, A., Parsons, A., & Urdapilleta, E. (2006). Expanding Bank Outreach through Retail Partnerships, Correspondent Banking in Brazil. USA: World Bank.
- Lyman. (2008). Regulating Transformal Branchless Banking: Mobile Phones and Other Technology to Increase Access to Finance. *CGAP*.

- Lyman, T., Ivatury, G., & Staschen, S. (2006). Use of Agents in Branchless Banking for the Poor: Rewards, Risks, and Regulation. *CGAP*.
- Lyman, T., Ivatury, G., & Stefan, S. (2006). Use of Agents in Branchless Banking for the Poor: Rewards, Risks, and Regulation. USA: CGAP.
- Morawczynski, O., & Pickens, M. (2009). Poor People Using Mobile Financial Services: Observations on Customer Usage and Impact from M-PESA. CGAP.
- Namada, J. M., Aosa, E., Awino, Z., & Wainaina, G. (2014). Management Participation and Firm Performance. *American Journal of Industrial and Business Management*, 4(3).
- Nezianya, N. P., & Izuchukwu, D. (2014). Impact of Agent Banking on Performance of Deposit Money Banks in Nigeria. *Research Journal of Finance and Accounting*, 5(9), 35-41.
- Siddique, M. (2014, July-August). Agent banking, the revolution in financial service sector of Bangladesh. *IOSR Journal of Economics and Finance (IOSR-JEF)*, 5(1), 28-72.
- Tanui, A. M. (2018). Effect of Agent Selection on Growth of Commercial Banks in Eldoret Town, Kenya. *The International Journal of Business & Management*, 6(10), 275-276.
- Tindi, P. O., & Bogonko, D. B. (2017). Effects of Agency Banking on Customer Satisfaction in the Banking Industry in Kenya. *International Academic Journal of Economics and Finance*, 2(3), 141-160.
- Veniard, C., Melinda, & Bill. (2010). How Agent Banking Changes the Economics of Small Accounts. Global Saving Form.
- Wawira, N. J. (2013). Contributions of Agency Banking on Financial Performance of Commercial Banks in Kenya. Thesis, Kenyatta University, Department of Accounting and Finance, Kenya.

Inspiring Excellence



Inspiring Excellence

Appendix I: Definition of the variables

Variables	Definition
Dependent variables	
Z	Net profit of the sample banks.
Explanatory variables	
TC	Total credit disbursed by the sample agent banks
TD	Total deposit mobilized by the sample agent banks
AOUT	Number of agent banking outlets of the sample banks.
AC	Number of accounts by the sample agent banks

Appendix II: Regression coefficients on Bank profit

	FE	RE
Total Credit (TC)	-0.001 (0.000)	-0.001 (0.000)
Total Deposit (TD)	0.165 (0.217)	0.228* (0.130)
No. of Agent banking Outlets (AOUT)	-1.125** [¶] (0.522)	0.605* (0.343)
No. of Accounts (AC)	-0.054 (0.335)	-0.276 (0.292)
R-squared	0.012	0.261
Hausman test	Prob $\chi^2 = 0.000$	
Total observations	54	

Source: Authors' estimation using STATA. FE stands for fixed-effect model and RE is random-effect model. *** denotes statistical significance level at 1%; ** denotes the level of statistical significance at 5%; * denotes statistical significance level at 10%

Inspiring Excellence

Appendix III: Application for the approval of Agent Banking Operation

Date: DD/MM/YYYY

General Manager
Banking Regulation and Policy Department
Bangladesh Bank
Head Office
Motijheel, Dhaka-1000.

Dear Sir,

Approval of Agent Banking Operation

We hereby apply for the approval of agent banking operation of our bank.

2. We have prepared and our Board of Directors have duly approved all related policies, reports, feasibility study, documents and systems for agent banking operation as per the Bangladesh Bank guidelines.
3. We have selected (name of proposed agent) as preliminary agent(s) for our agent banking operation. We do confirm that the proposed agent(s) is (are) not agent(s) of any other bank or has(have) not entered into a contract for the purpose.
4. We have attached herewith the following documents required as per the Bangladesh Bank guidelines:
 - a. (Name of document 1)
 - b. (Name of document 2)
 - c. (Name of document 3)
 - d. (Name of document --)
 - e. -----
5. We confirm that all information outlined in this letter and the enclosed annexures are true and correct.

Yours Faithfully,

Signature of Managing Director/ Chief Executive Officer/Head of Country Operation

(Name)

(Designation)

(Direct Phone No)

(E-mail)

(Fax)

Appendix IV: Information of Agent Banking Department

1. Name of the Bank:
2. Title and the address of the Department for Agent Banking:
3. Details of Head of the Department:

Signature :

Name :

Designation :

Cell phone :

Direct Land phone :

E –mail :

Fax No :

Appendix V: Information of Agent

Name of the Bank:

As on:

Agent SI no. (1)	Name of Agent (2)	Type of Agent (Master/Unit) (3)	Agent Address and contact number (4)	Date of Bank Approval (5)	Nature of Business (6)	Experience (Year) (7)	Outlet no. (8)	SI (9)	Address of outlet (9)	Name and contact number of Owner/ Manager of Outlet (10)	Date of Bank Approval (11)	Opening date of Outlet (12)	Comment (if any) (13)

Signature:

Name:

Designation:

Cell phone:

Direct Land phone:

Email:

Appendix VI: Information of Agent Banking Operation

Name of the Bank:Name of the Quarter:

Agent type (1)	No. of Agents			No. of Outlets			No. of Accounts								
	Urban (2)	Rural (3)	Total (4)= (2) + (3)	Urban (5)	Rural (6)	Total (7)= (5) + (6)	Urban (8)	Rural (9)	Male (10)	Female (11)	Current (12)	Saving (13)	Others (14)	Total (15)=(8)+(9) = (10)+(11) = (12)+(13)+(14)	
Master															
Unit															
Total															

Amount of Deposits (BDT in Lac)								Amount of Lending					Inward remittance (BDT in Lac)			Comment (if any) (31)
Urban (16)	Rural (17)	Male (18)	Female (19)	Current (20)	Saving (21)	Others (22)	Total (23) = (16)+(17) = (18)+(19) = (20)+(21)+(22)	Urban (24)	Rural (25)	Male (26)	Female (27)	Total (28) = (24)+(25) = (26)+(27)	Urban (29)	Rural (30)	Total (31) = (29) + (30)	

Signature:

Name:

Designation:

Cell phone:

Direct Land phone:

E-mail: