Financial Inclusion and Agent Banking in Bangladesh: A Pilot Study on the Determinants of Agent Banking Adoption

Dr. Mohammad Masukujjaman[1]

Abstract

The purpose of this study was to determine the factors influencing agent banking adoption in Bangladesh. This study employed the innovation diffusion theory and expanded the model to incorporate perceived risk, perceived trust, and knowledge. This research followed a quantitative and cross-sectional approach, employing purposive sampling to choose five of nineteen banks in Bangladesh's Dhaka division and administering structured questionnaires. As a consequence, the pilot study obtained 100 legitimate replies, which were analyzed using the SPSS version 25 program. The study discovered five factors; awareness, relative advantages, perceived risk, perceived ease of use, and perceived trust grouped from a pool of items analyzed.

Keywords: Adoption, Agent Banking, Awareness, Financial Inclusion, Perceived Risk

1.0 Introduction

Financial inclusion is described as the process of guaranteeing timely, adequate, and inexpensive access to financial services. The major goal of financial access is to offer rural residents credit and other financial services that will enable them to increase their income and standard of living (Khalily, 2004). Extending financial access, particularly to the unbanked rural population, can thus serve as a foundation for economic growth and poverty alleviation. Financial inclusion is frequently used to refer to the expansion of financial services to rural areas primarily occupied by vulnerable, weak, and low-income people (Nisha and Rifat, 2017). Rural communities frequently lack financial services since it is more expensive and unproductive for traditional banking institutions to operate branches in such locations (Nisha et al., 2015). As a result, rural populations in several developing nations continue to be financially disadvantaged due to poor and uncertain incomes, little or no land/assets, and low social status (Maanen, 2004).

Financial inclusion is a goal shared by many central banks in developing countries, and Bangladesh is no exception. This is because financial services are inaccessible in certain parts of the country and are only used by a small segment of the population (Nisha and Rifat, 2017). Despite the high demand for financial services, Bangladesh is frequently unable to meet them. These excluded places are typically rural,

[1] *Assistant Professor and Head, Department of Business Administration, Northern University Bangladesh*

impoverished, and also those that live in extreme climatic circumstances that make providing these financial services problematic (Atandi, 2013). Additionally, significant operational costs associated with financial services such as branch opening, employee training, and technical costs contribute to financial exclusion in Bangladesh, a developing nation (Nisha and Rifat, 2017). Additionally, it has been observed that the impoverished in metropolitan areas do not use financial services since banking transactions are prohibitively expensive for them (Nisha et al., 2015). Thus, even if financial services are available, the costs associated with going to branches and conducting transactions restrict the poor from taking advantage of them. Additionally, professional financial services needconfirmation of an individual's identification, income, and other personal information (Triki and Faye, 2013). The impoverished lack this documentation and hence are unable to access these services. If they have documentation, additional non-price barriers such as a long distance between the bank and their residence, inadequate infrastructure, and so on may prevent these individuals from achieving financial inclusion (Nisha and Rifat, 2017). Behavioral factors also have a role in financial inclusion to a degree. Many people in Bangladesh may be uncomfortable using formal financial services due to illiteracy, difficulties comprehending the language, the numerous documentation and conditions associated with financial services, and other factors (Triki and Faye, 2013). As such, the creation of novel financial service delivery models is required to fundamentally alter the economics of banking for Bangladesh's poor. Within this context, agent banking is viewed as a potential technique for increasing formal financial services in Bangladesh, particularly in poor and rural areas.

The agency relationship begins with the bank's due diligence and assessment, followed by clearance by the Bangladesh Bank, following which the agent enters a contract with the bank. This contract specifies clauses relating to the secrecy, security, soundness, and accuracy of all transactions conducted by the banks' agents. Additionally, it indicates the agents' complete financial disclosure, transparency, and accountability. Agents can begin delivering services following these authorizations. Agents are typically equipped with a point-of-sale (POS) card reader, a mobile phone, a barcode scanner to scan bills for bill payment transactions, a Personal Identification Number (PIN), and occasionally personal computers that connect to the bank's server via a personal dial-up or other data connection. Clients who make financial transactions through these agents access their bank accounts or e-wallets using a magnetic stripe bank card or their mobile phones. Customers are typically identified with a PIN, however, in some situations, biometrics may be used. Agents operate similarly to a traditional bank branch in terms of transaction verification, authorization, and settlement. Agents are not permitted to charge customers directly for services rendered. Banks will charge consumers an application fee for such

services and will compensate agents with reasonable compensation for offering such services (Nisha et al. 2020).

1.1 The Objective of the Study

For two reasons, it is critical to release information about this new initiative of agent banking services. To begin, many financial sectors in many nations are still unfamiliar with the concept of agent banking. Second, it is necessary to document the effectiveness of agent banking as a new banking channel and its impact on financial inclusion. Third, understanding why individuals accept agent banking and why they do not is critical to the industry's rapid rise. Thus, the objective of the paper is as follows:

- To identify the role of agent banking towards financial inclusion.
- To determine the factors influencing agent banking adoption in the context of Bangladeshi customers.

1.2 Significance of the Study

The study will add to the existing body of knowledge on financial inclusion and the factors affecting agent banking adoption. Bangladesh's central bank will find this study particularly useful when it comes to revising its norms and regulations for agent banking services. The current study's findings will also be critical for policy formulation. It can assist the government in developing and modifying agent banking regulations to enhance or eliminate remaining barriers to financial inclusion. In practice, this study will benefit banks as well, since they will gain insight into the factors influencing agent banking adoption. Additionally, the study will enlighten agents, clients, and the broader banking industry about the impact of agent banking on previously unreached parts of society.

2.0 Literature Review

2.1 Agent Banking in Bangladesh

Bangladesh has historically had very limited access to financial services. In 2010, the formal financial market was dominated by bank-provided services such as savings, credit, and insurance (Nisha et al., 2015). Banks and other financial service providers had been unable to enter all sections of the country and serve all consumers. Bangladesh has recently emerged as an intriguing story of digital innovation with the launch of mobile financial services. The market has expanded to include households with mobile banking accounts. As a result, more than 40% of rural households now have access to formal financial services. While 49.76 percent of families in metropolitan regions of the country have access to formal financial services (The

Daily Star, 2015). Nonetheless, many households lack access to financial services. Day labor-dependent households are one of them, with over fifth lacking access to any financial market. Additionally, workers in textile manufacturers frequently require remittance services, and the volume of these transactions is enormous. Conventional and mobile banking systems accounted for 15% of this population, while only 9% of accounts are active (Siddiquie, 2014). As a result, it became critical to develop and improve financial products to expand the reach of the banking sector's financial services. Agent banking evolved out of this perspective and was implemented by Bangladesh's central bank, the Bangladesh Bank, through an inclusive digital financial program (The World Bank, 2017a). Agent banking, a newly established banking service distribution mechanism, is increasingly being adopted by remote consumers in Bangladesh who lack access to a bank office. The Bangladesh Bank, the country's central bank, defines agent banking as a method of providing limited-scale banking and financial services to disadvantaged communities via engaged agents under legitimate agency agreements, rather than through tellers/cashiers (The Daily Star, 2017b). Under this system, the proprietor of an outlet executes banking transactions on behalf of a bank. Agent banking will increasingly be used as a distribution method for financial inclusion, according to their standards. Additionally, the policy states that NGOs, microfinance institutions, cooperatives, post offices, businesses, agents of mobile phone operators, union information service centers, and local government institutions, as well as any individual capable of offering financial services based on information technology, may be appointed as agents in Bangladesh (bdnews24.com, 2015).

2.2 Role of Agent Banking in Financial Inclusion Globally

As per the Governor of the Central Bank of Kenya (CBK), traditional banking techniques and people's limited access to bank branches situated primarily in densely populated towns are to blame. Certain segments of the population have been excluded from the formal financial sector simply because they do not live in highly populated places or low-income residential neighborhoods. These communities have been excluded, and to remedy this exclusion, the government developed agent banking through the CBK. Agent banking expands banks' reach to customers beyond the traditional branch network, which is constrained in its growth by some factors, including the cost of branch establishment and associated setup costs, which include staffing costs and other costs that are negative when compared to the benefits, i.e., the cost-benefit analysis of setting up branches in such areas. Agency banking is considered to be the solution to this challenge, as banks will swiftly expand by leveraging third-party infrastructure and labor (the agents). This not only benefits the banks financially but also enables them to reach and integrate an additional person who would never have been reached and included in the formal financial sector

without agent banking. Banks are motivated by increased popularity, expanded reach, and ultimately profitability, yet unintentionally, as they spread agent banking for the aforementioned reasons, they reach an increasing number of previously excluded communities (Ayegbeni 2021).

Agent banking is quickly growing in Nigeria, and sound regulation has been critical to its growth over the last decade (Flaming, 2011). Beyond the standard bank branch technology given by DMBs, there has been a spike in the various forms of remote access financial services. These services are available via a variety of channels, including mobile phones, ATMs, point-of-sale devices, and banking correspondents (agency banking). In the majority of climates, these non-traditional venues have played a critical role in deepening FI by serving people who would have been excluded had DMBs proliferated (Levine, 1997). Notably, mobile devices have become critical tools for boosting financial inclusion among the hitherto unbanked in underdeveloped countries (Kanobe, Alexander &Bwalya, 2017).

Hawkins (2012) concluded in a study examining whether agent banking has a beneficial influence on financial inclusion in the South African nation that prudential restrictions should be implemented to promote FI. According to Mohan (2006), FI ensures that the rural poor would have access to essential financial services under the current regime. Thus, inclusion in the financial infrastructure enables the average Nigerian to become 'bankable,' thereby increasing the individual's economic success. In Bangladesh, agent banking has been a motivator for financial inclusion. Unbanked populations are receiving financial services through agent outlets located throughout the country, allowing them to participate in formal financial activities that help to fuel the national economy, particularly in rural areas. Due to its rapid growth and inclusive development, this service has already garnered huge appeal among the financial community in the short time since its debut in 2013. (Munna, 2021).

2.3 Conceptual Framework

For Rogers (1995), who also invented this theory, an invention is a concept, act, or instrument that is updated to a person or a group of people, while diffusion is a process in which updated technological know-how is transmitted overtime via specific channels of communication between individuals to use new information systems. As a result, the Innovation Diffusion Theory (IDT) has five technology features such as relative advantage (compatibility), complexity (trialable), and observability. Previous studies have shown just one common factor in the adoption of technology or agent banking: a relative advantage and complexity (Shaikh&Karjaluoto, 2014). A conceptual model based on IDT is proposed in this study that incorporates perceived risk, perceived trust, and knowledge or awareness (Figure 1).

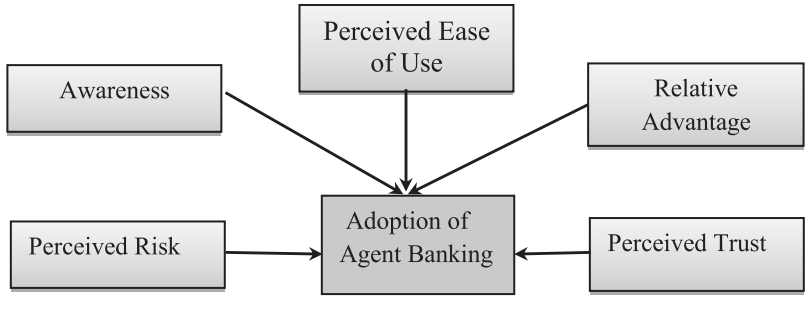
Awareness

For agent banking to take hold, there must be an understanding of the benefits and drawbacks of the system. Adopters of agent banking are more likely to accept it if more people are aware of it. Because of this, there is a significant connection between the knowledge and implementation of agent banking. Agent banking can be regarded as a circumstance or reality in which the usage of agent banking is appropriate (Savran and colleagues, 2016). Adoption of agent banking is more likely to occur if users are aware of its existence and have the necessary skills to use it, according to research (Savran et al., 2016; Alalwan et al., 2016).

Perceived Risk

Perceived risk is a significant impediment to client adoption goals. It is described as a combination of the degree of uncertainty and the gravity of the outcome. Risk perception has a negative correlation with adoption. When perceived danger is increased, consumer adoption of agent banking decreases, and when perceived risk is minimized, customer adoption intentions increase. According to Featherman and Pavlou (2003), perceived risk is the belief of effective adopters that they will fail to accomplish a goal. According to Ram and Sheth (1989), perceived risk is related to the degree of danger connected with the use of technologies. Riquelme and Rios (2010) discovered that the perceived risk connected with agent banking applications is higher because of the probability of money loss or theft. Al-Jabri and Sohail (2012) argue that perceived risk is much greater in the case of agent banking adoption due to privacy and security concerns. This research demonstrates that perceived risk will have a significant impact on agent banking adoption (Al-Jabri&Sohil, 2012; Ha et al. 2012).

Figure 1: the conceptual model



Relative Advantage

Relative advantage refers to the extent to which an invention is deemed superior to the concept it replaces. Relative advantage can help increase the number of possible adopters. The more comparable benefits accessible, the easier it is to adopt a

customer's behavioral purpose and vice versa. Relative advantage is strongly correlated with agent banking adoption. According to Rodgers (1995), relative advantage refers to the perception that an invention conforms to the principles, expectations, and wants of potential adopters. Customers who have never used agent banking before may find it difficult to utilize, causing them to believe it is incompatible with their lifestyle. This apparent absence of proportional advantage of agent banking concerning an individual's requirements may have a detrimental effect on the behavioral intention of agent banking. The less perceived proportional advantage an invention has over a successful adopter's lifestyle, the less likely it will be adopted and used. According to the literature, a perceived relative advantage is a significant motivator of agent banking aims. The relative advantage was deemed to be a strong predictor of agent banking adoption (Ha et al. 2012; Al-Jabri&Sohil, 2012; Dash &Bhusan, 2014). Additionally, this study hypothesizes that relative advantage would have a direct effect on customers' behavioral inclination to use agent banking.

Perceived Trust

Trust and faith in agent banking have a substantial correlation with agent banking adoption. While a high level of faith has frequently been given as a justification for a greater degree of acceptance of agent banking, the mechanisms by which they are manifested are well understood, and vice versa. In this regard, an awareness of the role of various types of faith in agent banking can have a beneficial effect on the adoption of agent banking. There is a strong association between perceived trust and behavioral intent when employing agent banking (Talukder et al. 2014; Savran et al., 2016). Trust is found to have a significant impact on the adoption of agent banking in the literature (Nel&Boshoff, 2014; Savran et al., 2016). Savran et al. (2016) argue that when faced with risk, the role of trust is heightened and decision-making components are increased. When trust is established, perceived risk increases, and confusion increases in agent banking. Trust in agent banking is contingent upon the customer's acceptance of agent banking to redact financial transactions and the financial organization's confession of being trustworthy; this reliance on agent banking for transaction redaction generates ambiguity, making trust a necessary component of agent banking (Talukder et al. 2014). Additionally, this study hypothesizes that perceived trust would have a direct effect on customers' behavioral intention to use agent banking.

Perceived Ease of Use

The extent to which an individual believes that utilizing a given technology would be effortless is referred to as perceived ease of use. To begin, individuals adopt a new banking system based on its functionality, rather than on its ease of use. As a result,

perceived simplicity of use is favorably associated with agent banking uptake. That is, if perceived ease of use is raised, customer acceptance of agent banking and behavioral intent will grow as well, and vice versa. Several studies have been published on this topic (Savran et al., 2016; Alalwan et al., 2016). Additionally, prior research has demonstrated a favorable association between perceived ease of use and the intent to embrace agent banking. The author asserts that if agent banking is simple to learn and use, it will increase individuals' desire to follow.

3.0 Methodology

3.1 Research Design in this Study

The study utilized a descriptive approach for the fulfillment of the first objectives. A critical literature review method was applied to find out the role of agent banking in financial inclusion. Also, for its second objective, this study uses an exploratory approach to explore factors affecting clients' adoption of agent banking in Bangladesh. Essentially, this is a pilot test research that will utilize quantitative methodologies to group the items for the criteria to conduct a final poll. Quantitative approaches can enhance specific characteristics through a structured data collection process from a large exemplary sample, so making the outcome more visible to the entire population. The fundamental objective of this research approach is to provide a concise answer to the research question through the collection and resolution of data from the survey. Questionnaire-based surveys enable the collection of data from a wide population in a consistent format at a low cost, facilitate comparison, and are readily understood and clarified. The most appropriate technique of data collecting is through a questionnaire. A questionnaire would facilitate the gathering of data on the characteristics of agent banking adoption and their impact on consumer behavioral intents to accept or reject agent banking, as well as the relative impact of the grounds against adoption. Additionally, they can be used to elicit a limited collection of data from respondents during face-to-face interviews. Face-to-face interviews are a well-established and effective method of surveying populations with the necessary access and knowledge (Quinlan, 2011). The author has described, and the most up-to-date, correct, and true scales of the theories being checked, based on the literature review.

3.2 Population and Sample

When conducting research, a population is typically a big group of people or things that are the focus of a certain question or investigation. That is why researchers employ this technique. Additionally, it is referred to as a well-defined collection of items or individuals that share a characteristic. The study population in this study is the residents of the Dhaka division. Saunders et al. (2012) defined probability and non-probability sampling methods and indicate that non-probability sampling is

frequently utilized when time and cost constraints apply. The proposed project will target all people in the Dhaka division who have bank accounts and use agent banking locations to access or trade on their accounts, or both. It is difficult to determine the size of the overall selected population; hence, data gathering was done by sampling.

The purposive sample is used in this study. The author chose a sample size of 100 respondents and a population of Dhaka divisions for this investigation. The researcher selected Dhaka, Narayanganj, Savar, and Madaripur districts from the Dhaka division as sample regions. 50 responders are users, while the remaining 50 are non-users. The researcher selects five banks for the sample size: Dutch Bangla agent banking, City agent banking, BRAC agent banking, Islami bank agent banking, and Bank Asia agent banking (Table 1).

Table 1: Sample size of the study

Banks name	Users	District name	Non-users	Total
Bank Asia	10	Savar	05	15
BRAC Bank	10	Madaripur	15	25
Islami Bank	10	Narayanganj	05	15
City Bank	10	Dhaka	15	25
Dutch Bangla Bank	10	Dhaka	10	20
Total	50		50	100

3.3 Data Collection Method and Questionnaire Design

To conduct this analysis, some self-created and some acquired questions were utilized to create a questionnaire and collect data for this study. The study used a structured questionnaire with closed-ended questions. The questionnaire has been developed, and data collection will take place via face-to-face interviews. The questionnaire was divided into two sections:

- Demographic data of the agent include his or her age, gender, education level, and banking experience.
- Conceptual framework constructs such as perceived ease of use, relative advantage, perceived risk, perceived trust, and awareness are also included.

According to Quinlan (2011), the Likert scale is frequently used to assess behaviors because it evaluates both direction and power. The Likert scale may comprise three-, five-, or seven-point attitude or behavioral assertions. The respondent just reads the item and marks the box that corresponds to their attitude toward the statement on a Likert scale (Quinlan, 2011). The poll employed a Likert scale of 1 to 5 to examine

the respondent's activities concerning the conceptual framework, with 1 indicating strong disagreement and 5 indicating strong agreement.' Closed demographic questions were provided to ascertain the existence of common threads.

Face-to-face interviews are used to acquire data because they demonstrate a skilled and beneficial method for respondents to consider the questions and responses. Face-to-face interviews are a common and successful method of surveying populations, assisting in the collection of accurate data (Quinlan, 2011). To acquire information, the researcher visited banks and questioned clients. The respondents accurately respond to each question one by one.

3.4 Data Analysis Method

The data analysis method entails summarizing and categorizing the information into a manageable temporary duration, defining and evaluating trends, as well as reviewing them. The data collected were put into an analysis tool for the SPSS statistical package (Statistical Packages for Social Science). According to the literature review, the independent factors are perceived ease of use, relative advantage, perceived danger, perceived trust, and perceived awareness, while the dependent variable is behavioral intention. The data was deconstructed utilizing investigative equipment that included Exploratory Factor Analysis (EFA) and Descriptive Statistics Analysis (DSA).

4.0 Results and Discussion:

4.1 Factor Analysis

Factor analysis is a statistical approach to determining the relationship between various sub-factors and variables, identifying the components that will be loaded by various factors and sub-factors, and determining their accuracy. Additionally, it provides ratings for coefficients in other deductive studies, such as regression between independent and dependent variables. Nonetheless, variables in factor analysis are tested using a matrix and correlation coefficient, regardless of whether they are dependent or independent. There are numerous approaches for analyzing factors; in this analysis, the researcher employed the Principal Component Analysis approach.

4.1.1 KMO and Bartlett Test

The Kaiser-Meyer-Olkin test determines sample suitability. KMO analyses are used to determine whether the partial differences between variables are modest (Field, 2005). KMO assessments are assigned a value between 0 and 1. A rating greater than 0.5 is considered acceptable, values between 0.5 and 0.7 are considered medium, values between 0.7 and.8 are considered good, values between 0.8 and 0.9 are

considered exceptional, and values greater than 0.9 are considered remarkable (Kaiser, 1974). Zero This indicates that the number of correlations for a subset of them is high in comparison to the total number of correlations, implying that a study of the component is unlikely to be appropriate. Closer to 1 values indicate that R-number trends are quite compact. According to Kaiser, values greater than 0.5 are acceptable. The KMO value is 0.763 for this research, which is appropriate and regarded to be of high quality.

Table 2: Factor analysis: KMO and Bartlett's test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.763
Bartlett's Test of Sphericity	Approx. Chi-Square	1048.860
	df	171
	Sig.	.000

Bartlett's test determines whether the differences between variables are sufficiently broad to be used in factor analysis (Field, 2005). From Table 2, it is clear that Bartlett's test is highly valid (p0.001) and reasonably robust for further study.

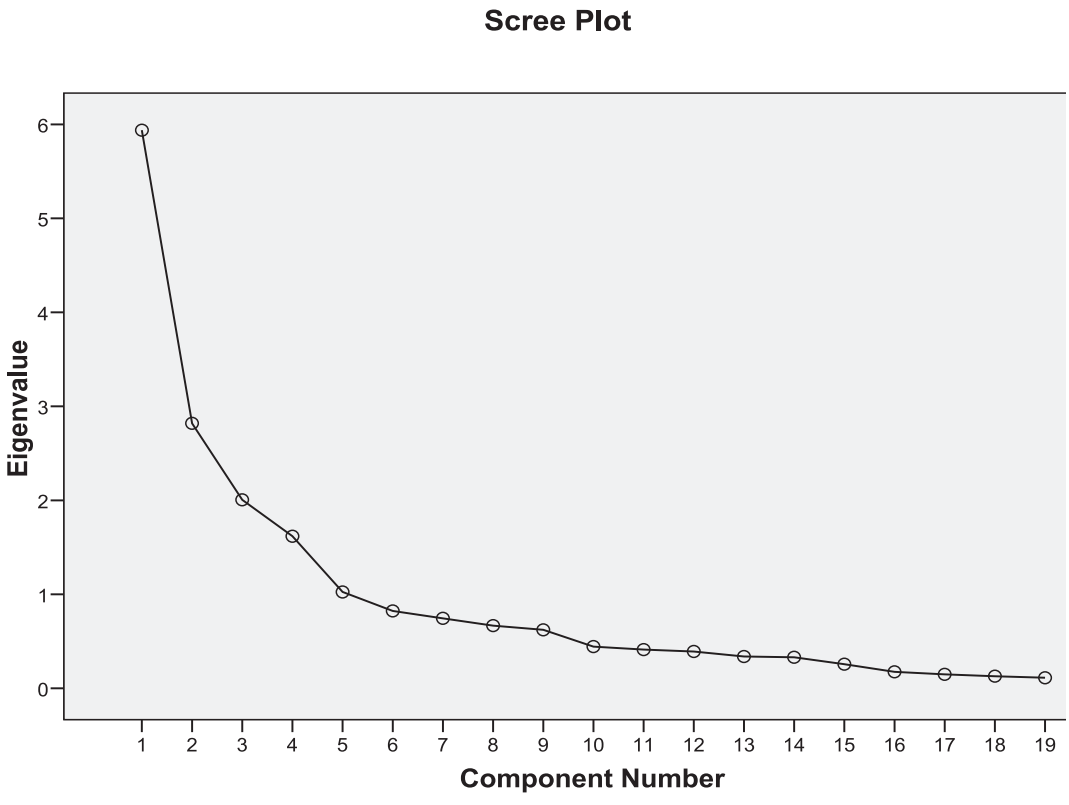
4.1.2 Principal Component Analysis (PCA)

The major component analysis of all 19 variables identified five components that adhered to Kaiser's requirement of maintaining Eigenvalues larger than 1.0. (Field, 2005). The explained total variance, the scree map, and the Patterns matrix are shown below.

4.2.3 Eigen Values

Eigenvalues are the value assigned to the feature of data that demonstrates the shared nature of all data and that piece. Initially, the total of primary Eigenvalues in nature equals the number of indicators we have (19 items at factor analysis). Nonetheless, we must exclude the critical and appropriate indicators for factor loading and classify signs into significant components. Scree plots and commonly agreed-upon procedures for extracting Eigenvalues could be utilized to do this. According to the Kaiser Criterion, suitable Eigenvalues should have a variance of at least one. Assuming this condition is adopted for this analysis, figure 2 depicts the scree plot for the 19 primary Eigenvalues used in this study. Since we adopted five agent banking variables in this research (and the fact that the primary Eigenvalues of all five first four components are more than one), and given that the primary Eigenvalues of all five first four components are bigger than one. The first five have been selected as load factors.

Figure 2: Scree Plot for Initial Eigen Values.



4.2.4 Extracted and Rotated Eigenvalues

We eliminate the top five components that exceed 1 using Kaiser Normalization for Eigenvalues. As illustrated in Table 3, the total of Eigenvalues for five components did not have to represent the same amount of variation. This part, which uses a rotating number of squares to represent extracted variance data, will more closely match each variable, ensuring that the variance percentages are comparable. This is advantageous when integrating agent banking indicators, as the data for the next move will be loaded into these five components.

The cumulative Squared Loading Extraction Summaries indicate the average explanatory power of these factors. The factors chosen in this present study area of 70.56% of explanatory power, which is acceptable because it is greater than 50% thumb rules.

Table 3: Total Variance Explained.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5.938	31.254	31.254	5.938	31.254	31.254	4.336
2	2.819	14.837	46.091	2.819	14.837	46.091	3.146
3	2.005	10.555	56.646	2.005	10.555	56.646	3.722
4	1.618	8.516	65.163	1.618	8.516	65.163	3.203
5	1.025	5.395	70.557	1.025	5.395	70.557	3.387
6	.823	4.331	74.888				
7	.745	3.920	78.808				
8	.667	3.510	82.318				
9	.622	3.273	85.592				
10	.443	2.334	87.925				
11	.412	2.169	90.095				
12	.392	2.061	92.155				
13	.338	1.780	93.935				
14	.331	1.740	95.674				
15	.257	1.351	97.026				
16	.175	.922	97.948				
17	.149	.783	98.731				
18	.129	.678	99.409				
19	.112	.591	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

4.2.5 Factor Loading

A key part of exploratory factor analysis is comparing loaded indicators to standard components after removing them and rotating them to normalize them. Table 4 shows the number of entries in the pattern matrix, as seen in the following figure. The data is ordered by scale for each section. According to the sample-gathered statistics, the variable would have been sorted into one of five columns. Oblique rotation is used to tailor each indicator to a single part (factor). Our SPSS parameters remove numbers in a matrix that are smaller than 0.5.

As indicated by the pattern matrix In Table 4, loaded numbers are ordered by size according to the pattern matrix, not by query order. Section 1 is devoted to concerns of Perceived Trust. Unit 2 completely loads all items associated with the attribute Perceived risk. Part 3 contains awareness artifacts. Unit 4 initializes the Relative advantage variable's elements. Finally, all information about perceived ease of use is placed into unit 5.

We may infer from the loaded components in Table 4 that the model used for this study is adequately focused on five adoptions of agent banking metrics because practically every item has a substantial coefficient value in its area. As a result, the author can utilize the preserved effects of these loading factors as regression scores to evaluate the influence of each and the acceptance of agent bank as a dependent variable on the regression study.

Table 4: Rotated component matrix and loaded factor

Pattern Matrix

Items	Component				
	Perceived trust	Perceived risk	Awareness	Relative advantage	Perceived ease of use
Familiar with AB service			.877		
Aware of AB			.776		
Know the place to get information			.552		
Security concern		.527			
AB is risky		.756			
Concern about leaking personal info		.888			
Fear of losing money		.821			
Chance of fraudulent activities		.716			
The cheapest way of transaction				.739	
Costs are affordable				.870	
Helps to reduce overcrowding in banks				.767	
AB is trustworthy	.782				
Keeps promises and commitments	.864				
Serves present/future customer interest	.918				
Providing services efficiently	.680				
Convenient to use					.661
Easiest to use					.762
Outlets are easily accessible					.731

Extraction Method: Principal Component Analysis.Rotation Method: Promax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

4.3 Convergent Validity

Table 5 illustrates the relationship between each variable. Correlation values are less than 0.8, indicating that there is no evidence of multicollinearity across variables and that the factors are truly convergent. In this investigation, no factor was determined to be more than 0.80, indicating that there is no multicollinearity.

Table 5: Component Correlation Matrix

Component	1	2	3	4	5
1	1.000	-.132	.283	.194	.402
2	-.132	1.000	-.106	-.275	-.060
3	.283	-.106	1.000	.326	.330
4	.194	-.275	.326	1.000	.330
5	.402	-.060	.330	.330	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

4.4 Data Validity and Reliability

Cronbach's Alpha is a frequently used internal consistency test (Saunders et al. 2012) that was used to determine the internal consistency of the scale. Cronbach's alpha reliability coefficient increases as the intercorrelations between test items increase; it typically ranges between 0 and 1. (Bajpai and Bajpai 2014). A test dependability grade of 0.6 or below is considered inadequate. While grades 0.7 to 0.9 are considered to be of acceptable dependability, those grades greater than 0.8 to 0.9 are considered to be of acceptable reliability. The closer the Cronbach's alpha grade is near one, the more internal coordination there is. The scales used in this study were influenced by the scales used and checked by other writers. The results of these tests are summarized in Table 6. The results demonstrate the dependability of all scales.

Table 6: Cronbach's Alpha Reliability of Scale

Scale	Cronbach's Alpha
Perceived ease of use	.744
Perceived risk	.800
Perceived trust	.881
Relative advantage	.792
Awareness	.851

5.0 Summary of the Findings and Conclusion

The purpose of this study was to determine the factors influencing agent banking adoption in Bangladesh. The use of agent banking products and services is examined in this study, with a particular emphasis on respondents from the Dhaka Division. A hundred questions were created to elicit information from responders. The first reliability test is conducted to validate the findings, and the Cronbach alpha value is between 0.744 and 0.881. This value indicates the outcome's legitimacy. Numerous variables contribute to this increase. All factor loadings were proposed to be 0.50 to evaluate the SPSS model's measurement process. Additionally, an internal quality reliability analysis was conducted, and the results indicate that the alpha and composite reliabilities for all Cronbach scales are greater than 0.70, indicating that all scales are correct. Following that, convergent validity results indicated that AVE was acceptable at 0.50 for each build. It described the latent variables that more accurately characterize the indicator variance than the variance itself. The results indicated that the model is fairly selective in its accuracy.

The study grouped and sorted out suitable items under the factors through the factor analysis. The factor awareness includes three items such as familiarity and awareness about AB services and knowing the place to get information. The construct relative advantages comprise of items like the cheapest way of transaction, costs are

affordable and help reduce overcrowding in banks. The perceived trust factors consist of items like trustworthiness, keeping promises, serving present and prospective customer interest, and providing efficient services. Agent Banking is convenient, easy, and accessible are the items that constitute the construct's perceived ease of use. Finally, the exploratory investigation identified five items under the factor perceived risks such as security concern, risk, concern about leaking personal information, losing money, and the chance of fraudulent activities. Thus, based on the factor analysis and reliability assessment of the constructs, this model is fit for further or advanced assessment of confirmatory factor analysis and the structural modeling with an in-depth survey with a larger sample survey.

6.0 Recommendations of the Study

Banks are becoming increasingly competitive on many fronts, including product diversification, service offers, service quality, and technology. Clients select banks based on a variety of service-related characteristics. While the agent banking system is rapidly changing and expanding in global economies, they will need to focus more on the quality of products they deliver to their consumers to survive in the long run. Thus, following an overall study, specific recommendations for the survival and advancement of agent banking are made. The following recommendations are made:

- ❖ The study proposes putting a bit more effort into minimizing the carrying money risk associated with agency banking by providing ATM cards, checkbooks, and other services, particularly given the industry's high level of competition from other banks. This will significantly increase agent banking's acceptance.
- ❖ Agent banking has to focus more on implementing its expansion strategy, as it is not producing optimal outcomes in terms of the bank's adoption of agent banking.
- ❖ Agents should conduct awareness workshops to educate clients about agent banking services, the differences between them and traditional banking services, as well as their long-term benefits. Additionally, agents should be concerned with advertising, marketing, and other methods of educating their targeted consumers about the agent banking system.
- ❖ Agent banking management must ensure a vibrant and effective product diversification plan; benchmarking against other organizational actors is necessary. This will also increase agent banking usage, enabling the bank to assert a logical market share. The author proposes that agent banking continue to develop and expand its information and communication technology infrastructure to best anticipate market needs and establish the bank on the market alongside a slew of other participants. This will increase agent banking's acceptance.

7.0 Limitation of the Study:

The study is limited in terms of the scope of the study. First, this is an outcome of a pilot study to fix the scales and questionnaire for the final study. The advanced study could further testimony and refine the proven factors for generalization. Second, the study only used only 100 sample sizes only in Dhaka city, which could be extended and diversified with more coverage of cities and districts in Bangladesh. Third, the future study could incorporate other stakeholders than the consumers' perception to get a 360-degree level view of the problems and solutions.

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