

# COMPARISON OF FINANCIAL INCLUSION STATUS: A RELIGION-BASED STUDY IN MALDA DISTRICT OF WEST BENGAL

**Md. Wakil Hossain**

Assistant Professor in Commerce

Goenka College of Commerce and Business Administration, Kolkata

*E-mail: mdwakhossain@gmail.com*

**Abhijit Sinha**

Associate Professor in Commerce

Vidyasagar University

*E-mail: abhijitsinha\_091279@rediffmail.com*

**Tagar Lal Khan**

Professor in Commerce

Vidyasagar University

*E-mail: tagarkhan@yahoo.com*

## **Abstract**

Financial inclusion is an important issue across the world. It is also very vital matter to the Reserve Bank of India (RIB) and government of India. To gear up financial inclusion performance at the every corner of our country so many initiatives have been taken by the RBI and govt. of India. In this connection, the researcher makes an investigation about the status of financial inclusion between Muslim community and other communities (Hindu, Buddhist, Christian and Sikh etc.) of Malda district, West Bengal. Multistage primary survey is conducted in the concern district for collecting data. Factor analysis technique is applied for analyzing the dataset with respect to three dimensions (Penetration, Availability and Usage) of financial inclusion. Under penetration dimension, opening of bank account and documentation for bank account are highly correlated with the faith on bank as per respondents of Muslim community and as per other communities, these two points are correlated with the banking services. Populations of Muslim community depend more on 'Banking Mitras' than other communities. People of Muslim community are more habituated with conventional banking systems and banking products than populations of other communities. On the other hand, respondents of Non-Muslim use more ICT based new system and banking products than Muslim community.

***Keywords: Financial Inclusion, Penetration, Availability, Usage, Religious communities***

## **1. Introduction**

Financial inclusion is an important issue across the world. It is also very vital matter to the Reserve Bank of India (RIB) and government of India. The financial inclusion is defined by the

Rangarajan Committee (2008) set up by the Reserve Bank of India (RBI) as “the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost” which indicates the ease of financial access for the common people at reasonable cost timely and adequately. Cast wise information of financial inclusion was explained in the study of Chattopadhyay (2011) and Kuri and Laha (2011). From the academic contributions of researchers like Sarma (2008 & 2010), Chattopadhyay (2011) and Kuri and Laha (2011), it is noted that the concept of financial inclusion has three dimensions viz. penetration, availability and usage. Penetration indicates the number of adults having bank accounts, availability means number of bank branches per square km. and usage mainly focuses on the banking transactions in mode of deposit, credit loan etc. The government of India and Central Bank regulator i.e., RBI has designed measures from time to time to ensure the spread of inclusiveness among the different communities and to different parts of the country. Some of the prominent milestones are referred liken nationalization of fourteen commercial banks in 1969 to provide public oriented banking services, formation of Regional Rural Banks (RRB) in 1975 for reaching the banking services to the rural people and remote areas, setting up of National Bank for Agriculture and Rural Development (NABARD) in 1982 to provide special focus on the agricultural sector and Self Help Group (SHG) bank linkage programme in 1992, issuing of Kisan Credit Card (KCC) and General Credit Card (GCC) in 1998, opening of no-frills bank account in 2005, simplification of know-your-customer norms and in 2010 designing the financial inclusion plan with its three phases being distributed over 2010-13, 2013-16 and 2016-19. Just after the commencement of the first phase of the financial inclusion plan in line with the need to fulfill the Universal Finance Access by 2020, in 2014, the Indian government launched the Pradhan Mantri Jan Dhan Yojana (PMJDY) to rapidly increase the spread of banking and performance level of financial inclusion.

## **2. Literature Review**

There are numerous studies that have looked into the issue of financial inclusion in India and abroad. Some of the previous studies are reviewed. These are as follows

Altarawneh (2020) investigates the level of financial inclusion in Latin America and Europe on the basis of the Global Findex Database. The two key determinants that are found to affect financial inclusion are income and education. Lanie (2017) mentions that financial inclusion / access to finance was among the key prioritized issues in West African Economic and Monetary Union. Olaniye and Babatunde (2016) in their study on Africa for the period 2005 to 2014 identify the determinants of financial inclusion using the dynamic panel data approach. It finds that the key factors are per capita income, presence of Islamic banking, financial literacy and internet access. The following literatures note the basic conceptions about financial inclusion like definition, progress, initiatives, role of commercial bank for financial inclusion and challenges Trivedi (2015), Salvakumar et al. (2015), Aggarwal (2014), Hamidu (2014), Kolloju (2014) Kaur and Tanghi (2014) and MP and Pavithran (2014). Banerjee and Francis (2014) in their inter-state assessment find the dominating position of Kerala, Maharashtra and Karnataka. Nahar and

Bhatia (2014) in their investigation look at the relationship between GDP and financial inclusion. They derive a positive relationship between GDP and penetration of bank account. The researchers also point to the demand and supply side barriers. Chakrabarti (2013) observes that inclusive growth and sustainable economic development mainly depends on the formation of capital through adequate credit and necessary financial services. Shankar (2013) states the encouraging role of microfinance institutions in financial inclusion. Kuri and Laha (2011) look into the financial inclusion in some selected districts of West Bengal. Kolkata occupies the highest position in the inter-district comparison of Index of Financial Inclusion. Chattopadhyay (2011) in the measurement study of the level of financial inclusion in the Indian states and selected districts of West Bengal finds huge disparity within the states. Sarma (2010) elaborates the importance of inclusive financial system for equitable in any economy. Sarma (2008) mentions the gap in research in financial inclusion in terms of index method for comparing inclusion levels. The researcher prepares the index for different states and countries.

### **Research Gap**

On the basis of previous literature studied, it is clear that financial inclusion is a vital issue and very favorite to researchers. Many studies have been done from time to time touching on different aspects ranging from role and importance, impact of regulatory changes on inclusion, the changing role of banks and moving to country-level inclusion level. Thus, it is clear that there have been some researches covering the supply side of financial inclusion. Some of the studies have focused on measuring the financial inclusion index at different levels, be it the state or district level. The investigators did not find any study which considers religion to be factor in inclusiveness. With this background, it is therefore very logical to take up a study with focus on religion as an indicator and more so with respect to West Bengal where 27.01% of the population is Muslim ([Population by religious community: West Bengal](#), 2011 Census of India). The research is relevant as it will help to not only identify the position of the communities but also contribute to remove the obstacles that come in the way of inclusion.

### **3. Objectives of the study:**

There is an important objective of the research which is as follows:

- To make a comparison of financial inclusion status between Muslim community and other communities (Hindu, Christian, Buddhist, Jain etc.)

### **4. Research Design**

The vigour of results depends on the research design adopted for doing the research. The details are given below.

**4.1 Data Type and Data Source:** The present study is dependent on primary data which is collected from five blocks (Kaliachak-II, Kaliachak-III, Manichak, Chanchal-I and English Bazar) of Malda district in West Bengal.

**4.2 Sample size:** For collecting the primary data, five hundred respondents are chosen from the purposively selected five blocks to cover all the areas of Malda district in West Bengal.

**4.3 Sampling Design:** The survey is based on a structured questionnaire. For the purpose of collecting data, multi-stage sampling method is followed. Malda District is considered as first level, block is treated as second level and the third level is village. Initially five blocks are purposively chosen from the district after which from each block, ten villages are randomly selected and finally ten respondents are considered from each village. In determining the ratio of Muslims and non-Muslims in the respondent list, religion wise population ratio of the respective blocks is followed of people between the religions is considered block-wise and accordingly respondents are chosen.

#### **4.4 Research method applied**

The empirical research gives focus on the comparison of financial inclusion status between Muslim community and Non-Muslim communities. The questions of questionnaire are divided into three dimensions, one is penetration and other two are availability and usage. Concern variable names under these three dimensions are mentioned in the following table.

**Table 4.a Name of the Variables under Penetration, Availability and Usage Dimensions**

<b>Variable No.</b>	<b>Penetration</b>	<b>Variable No.</b>	<b>Availability</b>	<b>Variable No.</b>	<b>Usage</b>
1	Whether documentation easy for opening account	1	Proximity of the bank to your home	1	Knowledge about Traditional Products
2	Whether useful services are provided by banks	2	Going to Bank is costly for you	2	Knowledge about Non-Traditional Products
3	Opening bank account is easy	3	The ATM is near your home	3	Bank office staffs are helpful and well behaved
4	Banking Mitras are useful	4	I access traditional services quite frequently	4	Completing banking transactions take time
5	Banks help to build wealth	5	I access non-traditional services quite frequently	5	The banking services are satisfactory
6	You have trust on banks and their staff	6	Distance is a problem in my banking	6	You are satisfied with banking products
7	Banks offers security by keeping	7	Branch office timings are okay		

	the money safe				
8	Banks make you aware about different government schemes				

Source: Prepared by researchers

In order to first understand whether the data is fit for the method, the KMO Test and Bartlett’s test of Sphericity are applied. As the results are found to be favorable, the other results of factor analysis are considered which include communalities, total variance explained and the component matrices. The application of factor analysis gives an idea about the key factors that explain the variability in extending the financial inclusion. For testing whether there is any significant difference in status of financial inclusion between Muslims and non-Muslims, the non-parametric Wilcoxon ranked sum test is applied.

Firstly weighted dimensional score is calculated of every respondent using the weight of respective variables under these three dimensions and weights are derived from the component matrix of the respective dimensions (penetration, availability and usage). In the second stage factor analysis, weights of each dimension are gotten and using these weights, weighted index of financial inclusion (IFI) is computed for all the respondents. Then the respondents’ IFI are divided into two groups as per their religion, one is IFI of Muslim community and other is IFI of non-Muslim communities.

## 5. Analysis and findings

In this section researcher focuses on the results of factor analysis of Muslim community and other communities.

### 5.1 Analysis of Penetration Dimension for Muslim and Non-Muslim Respondents

In order to apply factor analysis, it is needed to test for the suitability of data. For this reason, the researcher performs separately KMO and Bartlett’s Test of Sphericity on the database of two groups (Muslim and Non-Muslim communities) under the dimension of penetration. The result of KMO gives the value 0.723 and 0.727 for the two groups and Bartlett’s test of sphericity is found highly significant at .01% level for the both communities which indicate that factor analysis is an appropriate method for analysis.

#### 5.1.1 Total Variance Explained:

The results of variance explained extract three components out of eight components which are significant and fulfill the Kaiser criterion. The significant extracted components together explain 61.39% of variance out of the total variation for Muslim community and for Non-Muslim communities 61.16 % of variance out of total variance.

#### 5.1.2 Rotated Component Matrix

For better understanding of the structure of underlying data and their loading on any specific factor, Varimax rotation is applied. The results after rotation are depicted in the table 5.a below. In case of Muslim community, it is observed that the variables 2, 4, 6 and 7 have loading on the first extracted component (banking service), variables 1, 2 and 3 have loading on the second extracted component (faith on bank) and variables 2, 5 and 8 on the third extracted component (awareness). It is observed that even after rotation, variable 2 still shows close relationship with all the three extracted factors, which may be considered as a complex variable in principal component analysis. In respect of Non-Muslim communities, it is found that the variables 1, 2, and 3 have loading on the first extracted component, variables 4, 6 and 7 have loading on the second extracted component and variables 2, 5 and 8 have loading on the third extracted component. The rotated component matrix shows that only variable 2 belongs to two extracted components. Based on the arrangement of the variables under the three extracted factors, we have named the following three factors as ‘Banking services’, ‘Faith on bank and ‘Awareness’ respectively. The first component is highly correlated with the variables 3, 1 and 2. The second extracted component, ‘Faith on bank’ is highly correlated with variables 4, 6 and 7. The third component, ‘Awareness’ is highly correlated with variable 5 and moderately with 8 and 2.

**Table 5.a: Rotated Component Matrix**

	Muslim			Non-Muslim		
	Comp. 1	Comp. 2	Comp .3	Comp. 1	Comp. 2	Comp .3
	Banking Service	Faith on Bank	Awareness	Banking Service	Faith on Bank	Awareness
Whether documentation easy for opening account	--	.843	--	.827	--	--
Whether useful services are provided by banks	.384	.565	.331	.599	--	.441
Opening bank account is easy	--	.839	--	.831	--	--
Banking Mitras are useful	.703	--	--	--	.607	--
Banks help to build wealth	--	--	.822	--	--	.815
You have trust on banks and their staff	.787	--	--	--	.804	--
Banks offers security by keeping the money safe	.748	--	--	--	.750	--
Banks make you aware about different government schemes	--	--	.661	--	--	.620

Source: Computed by researchers

Rotation Method: Varimax with Kaiser Normalization.

Note: Values < | 0.3 | are ignored

## 5.2 Analysis of Availability Dimension for Muslim and Non-Muslim Respondents

In this part of the analysis, the researcher highlights on the status of financial inclusion of these two groups in respect of availability dimension.

In order to apply factor analysis, firstly test of data suitability for factor analysis is an important matter. For this, the researcher performs separately KMO and Bartlett's Test of Sphericity on the database of two groups (Muslim and Non-Muslim communities) under the dimension of availability. The KMO test gives a value of 0.702 for Muslim community and 0.682 for Non-Muslim communities and Bartlett's test of sphericity rejects the null hypothesis at 1% level for both cases which means that the considered variables are fit for running factor analysis.

### 5.2.1 Total variance Explained

It is found that two components out of total seven components are significant and thus the other extracted components are dropped from further analysis. In case of Muslim community the two significant extracted components explain 59% of the variation and 59.82% for Non-Muslim communities present in the dataset

### 5.2.2 Rotated Component Matrix

In the result, the component matrix for Muslim community is presented in Table 5.b which shows that the variables under the 'availability' dimension are well distributed between the two extracted components. It is clear from the table that the variables are distributed in such a way that each variable is associated with a particular component. Considering the nature of the variables, the two components are named as 'availability of banking institutions' and 'access to banking services' respectively. The components (or extracted factors) show that variables 1, 2, 3 and 6 are closely related with the first extracted component (named as 'availability of banking institutions') and the other three variables are associated with component 2 (named 'access to banking services'). If any variable has a correlation of less than 0.30 with either of the components, then that relationship is ignored.

In case of Non-Muslim communities, the rotated component matrix, it is found that variable nos. 1, 2, 3 and 6 are highly correlated with component 1 (named 'availability of banking institutions') and the other three variables are associated with component 2. Considering the nature of the variables and their information content, the extracted components are named as 'Availability of banking Institutions' and 'access to banking services' respectively.

**Table 5.b: Rotated Component Matrix**

	Muslim		Non-Muslim	
	Comp 1	Comp 2	Comp 1	Comp 2
	Availability of Banking Institutions	Access to Banking Services	Availability of Banking Institutions	Access to Banking Services
Proximity of the bank to your home	.916	--	.922	--
Going to Bank is costly for you	-.800	--	-.810	--
The ATM is near your home	.854	--	.747	--

I access traditional services quite frequently	--	.809	--	.780
I access non-traditional services quite frequently	--	.673	--	.624
Distance is a problem in my banking	-.575	--	-.694	--
Branch office timings are okay	--	.561	--	.728

Source: Computed by researchers

Rotation Method: Varimax with Kaiser Normalization

Note: Values < | 0.3 | are ignored

### 5.3 Analysis of Usage Dimension for Muslim and Non-Muslim Respondents

In this part of analysis, the researcher highlights on the status of financial inclusion of these two groups in respect of usage dimension.

In order to apply factor analysis, test of data suitability for factor analysis is an important matter. For this purpose, the researcher does separately KMO and Bartlett's Test of Sphericity on the database of two groups (Muslim and Non-Muslim communities) under the dimension of usage. The KMO test gives a value of 0.621 for Muslim community and 0.614 for Non-Muslim communities and Bartlett's test of sphericity rejects the null hypothesis at 1% level for both cases which means that the considered variables are fit for running factor analysis.

#### 5.3.1 Total variance Explained

It is found that two components out of total six components are significant and thus the other extracted components are dropped from further analysis. In case of Muslim community the two significant extracted components explain 59% of the variation and 59.82% for Non-Muslim communities present in the dataset

#### 5.3.2 Rotated Component Matrix

In the rotated component matrix, obtained from Varimax rotation, it is observed that except variable 3, others are well distributed under one specific extracted latent. Variables 1 and 2 are highly correlated with first extracted component and variable 3 is moderately correlated with the first component. Variable 5 and 6 are highly correlated with the second extracted component and for variable 3 such relation is moderate. Depending upon the aspects of the variables concentrating under the extracted components, the researcher has named the components as 'Banking Products' and 'Banking Satisfaction' respectively.

In order to better understand the structure of underlying data and their loading on any specific factor, the researcher applies varimax rotation and from the rotated component matrix, it is observed that variables 1, 2, 3 and 4 have loading on the second extracted component. Variables 3, 4, 5, 6 are correlated with the first extracted component. Variables 3 and 4 are found to be the complex variables which in spite of factor rotation carry relation with both the extracted components.

**Table 5.c: Rotated Component Matrix**

	Muslim		Non-Muslim	
	Comp. 1	Comp. 2	Comp. 1	Comp. 2
	Banking products	Banking Satisfaction	Banking products	Banking Satisfaction
Knowledge about Traditional Products	.762	--	--	.723
Knowledge about Non-Traditional Products	.789	--	--	.809
Bank office staffs are helpful and well behaved	.569	.361	.600	.389
Completing banking transactions take time	--	.387	.545	-.301
The banking services are satisfactory	--	.769	.711	
You are satisfied with banking products	--	.772	.677	

Source: Computed by researchers

Rotation Method: Varimax with Kaiser Normalization

Note: Values < | 0.3 | are ignored

#### 5.4 Difference in Financial Inclusion Score between Muslim and non-Muslim Communities

In order to find out whether there is any significant difference between the Muslim and non-Muslim communities in respect of financial inclusion, Mann-Whitney U-test is applied and the results are given in Table 5.d.i and 5.d.ii below.

**Table No. 5.d.i: Mean Rank and Rank Sums of Two Groups**

	Code	N	Mean Rank	Sum of Ranks
Religion	0	212	274.57	58208.50
	1	288	232.78	67041.50
	Total	500		

Source: Computed by researchers; Code: 0 = Non-Muslims and 1 = Muslims

**Table 5.d.ii: Mean Difference Test**

	Test Statistic
Mann-Whitney U	25425.50
Wilcoxon W	67041.50
Z	-3.196
Asymp. Sig. (2-tailed)	.001

Source: Computed by researchers

Grouping variable: Religion

The p-value of less than 1% indicates a significant difference in the financial inclusion score between the Muslim and non-Muslim communities. A further look at the result shows that the mean inclusion score among the Muslims is lower than those of the other communities (majority of which is covered by the Hindu respondents). So, the backwardness among this minority community is seen in terms of financial inclusiveness level.

## **6. Concluding remarks**

The study is an important one and considers an area which is in the agenda of policy-makers at the national and international level. In respect of penetration dimension, documentation for opening an account and opening of bank account are highly correlated with the faith of bank for Muslim community and in case of the other communities, these two points are highly correlated with banking services. Populations of Muslim community give more importance to the 'Banking Mitras' than the populations of non-Muslim communities. Both groups consent in the equivalent level regarding the security and safety providing by the bank for their deposited money and in case of useful services. In respect of availability dimension, populations of Muslim and Non-Muslim communities opine in the same level regarding proximity of the bank to your home, going to bank is costly for you and the ATM is near your home. People of Muslim community use traditional banking services more frequently than the people of other communities and in case of using non-traditional banking services, respondents of other communities uses more frequently than the respondents of Muslim community. Distance of bank branch is highlighted as a problem by the respondents of both groups more or less in the same level. In respect of usage dimension, populations of Muslim community are more habituated with the traditional banking products in comparison with the populations of other communities on the other hand reverse result is found in case of knowledge about non-traditional banking products. Respondents of both groups express their opinion in the same level for 'bank office staffs are helpful and well behaved' and the banking services are satisfactory. People of Muslim community opine high level satisfaction for banking products in comparison of non-Muslim communities' people. Significant difference in the financial inclusion score between the Muslim and non-Muslim communities is found. Mean inclusion score among the Muslims is lower than those of the other communities (majority of which is covered by the Hindu respondents). So, the backwardness among this minority community is seen in terms of financial inclusiveness level.

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