

THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

Impeding Factors in Banking Services: a Study of Manipur, India

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Abstract:

In recent times, Indian Banking Industry has endured significant pressures in terms of development in products and services delivery. Many areas in banking industry have changed and continued to modify their landscape. But challenges still remain in the outreach of their services. The purpose of this paper to find out the factors impeding the delivery of banking services in Manipur. From all the Public and Private Scheduled Commercial Bank of the state, 47 bank branches from six district of the state were selected as sample size using stratified purposive sampling techniques. Primary data were collected using structured questionnaires using five-point scale for official and conduct informal discussion with the local people. The results of the study reveal that from both methods, 'Customer Financial Knowledge Factor' was most challenges factor face by banking institution while trying to delivered their banking service, next is 'Geographical Physical Infrastructure Factor'. For opening new branch in unreached area, the most influencing factors is the population size of the area. In terms of cost factors, the study found that recurring cost are the most influencing factors.

Keywords: Financial services, banking services, delivery, factors

1. Introduction

Banking services are important for growth and development in many economic activities. Access of financial from the service providers raise per capita income, consumption as well as household net worth. (Khandker, 2001). Measurement of financial sector outreach, assessing its determinants and the economic impact of financial sector depth is enforced. Wide financial services outreach is important in different reasons. And lack of wide access of credit results in difficulties to poor households or small entrepreneurs to finance their needs, also reduces the efficiency in resources allocation. Both outreach and depth are associated with the level of development, the level of credit sharing, and the quality of the institutional environment (Beck, A. Demirguc-Kunt, & Peria, 2007).

2. Literature Review

Financial institutions have a very critical and a broader role to play in fostering financial inclusion. Lack of financial literacy is the foremost hindrance in spreading financial inclusion. This has resulted in the more than 50 percent of savings of the household sector and of the financially illiterate getting drained in non-financial investments (Joseph Massey, 2010). According to Srinivasan (2009) studies explained that financial literacy means great awareness, impart knowledge and upgrade skills to make financial decisions about savings, investments, borrowings and expenditure in an informed manner. Financial literacy is a primary step for financial inclusion since introspection changes behavior which in turn makes people seek and receive financial services and products.

Only 20 per cent has access to formal financial services in India. The consumer international explain that lending of credit to poor involve more risk so it creates a barrier to access. They also articulate that new technological development in the banking sector can be helpful to clients for many purposes. They express that because of technology, providers offering various financial services on behalf of banks improved and their outreach was 5.8 million poor clients within two year. So, they conclude that with new technology one can reach to our target consumer ("Our money, our rights: The evolution of financial services in Asia" 2010).

According to Roy & Dastidar (2011) analyses, they found that North East India was the lowest economic growth compare to other India. The result of low economic growth is related to low infrastructure, low industrialization, and lack of both public and private investment. They also found that state government was not utilizing the government funds in proper and productive ways.

Each state of the NE Region possesses a distinct physical, cultural and socio-economic identity. The region as a whole has a population of nearly 4 crores of which Assam accounts for nearly 3 crores. The region is blessed with plenty of natural resources which is very scarce now in most part of India. Women in NER enjoy a better social status vis-a-vis the rest of India. The Women's Market of Manipur is very famous. "In 2005, Bank credit per capita in the NER was only 21% of the national average (Rs. 2,280 compared to Rs.10, 752). In Manipur where the demand is high and formal suppliers are almost non-existent informal financial intermediation has acquired the status of banks. This has led to a growth of these entities which govern everyday life in Manipur (Sadhan, 2008c)".

From many studies, Manipur state was found least banked with population per bank branch in thousands that is approximately thirty-one thousand against all India level of eighteen thousand (Kaparna, 2011).

In order to improve the condition of banking services, RBI has already undertaking special initiative to extend the outreach of the banking sector in North East region to overcome difficulties (Mohanty, 2011). And financial regulators, governments and the banking industry also take serious step for 100% financial inclusion. However, challenges still remain in the outreach of their services in India especially in North East. So, this necessitates the study of the factors that foster the penetration and delivery of banking services.

3. Objective of the Study

1. To identify the most influencing factors that the banking institution see for opening new bank branch in unreached area.
2. To identify the most influencing Cost Factors that banking institution see while opening a new bank branch.
3. To find out the most influencing factors that impeding the delivery of banking services in Manipur.

4. Research Methodology

The type of study was descriptive and analytical in nature. The respondents are the higher officials from banking sector of Manipur.

4.1. Sample Selection:

To identify the factors which are fostering and impeding the delivery of banking services in Manipur, Banking Institutions which are running in Manipur of six district (Imphal West district, Imphal East district, Thoubal district, Bishnupur district, Chandel district and Churachandpur district) were selected. Using stratified purposive sampling techniques, a sample size of 47 bank branches were surveyed from the total population of 128 scheduled commercial bank branches available in six districts. Only one higher official was interviewed from each sample.

4.2. Data Collection

Primary data were collected by administering structured questionnaires in selected bank official. And the secondary data were collected from state lead bank of Manipur report and census of Manipur 2011.

4.3. Data Analysis Tools and Methods

For this purpose, researcher used structured questionnaires for collecting primary data from institutional official branches. To analyses this, the researcher adopted various statistical tools like Mean score, Rank and discriminant function analysis.

Question for finding out the most to least influencing factors while trying to delivery of banking Services, the researcher used six factor with 25 statement. Each factor for this question having either four or five statement. Then transform all the 25 statement which are in positive statement to negative statement since the structured questionnaire statement comprised both positive and negative statement. This is done to make all the statement in one form. Then the researcher compute mean score for each factor by using their respective variables. This score is calculated by using formula:

$$\rightarrow \text{Mean Score for factor } i = \text{Total Score} / \text{Number of Sample variable in Factor } i$$

Where i = Institutional Infrastructure Availability factor, Institutional Operational Effective factor, geographical Physical Infrastructure factor, Information and technological factor, socioeconomic factor and customer financial knowledge factor.

The generated average mean score is considered as independent variables of this study. Then, to find out the most to least influencing factors. The study use in two way. The first one calculate the average mean score for each independent variable and their rank them to find out the most to least influencing factors. And the second method used discriminant function analysis. The dependent variable for discriminant analysis are calculated using secondary data. So, the six generated independent variables and calculated index level of banking penetration were used to find the discriminant function which determine the maximum likelihood factor affecting the delivery of banking services in the state. And for other questions like the banking institution see for opening new bank branch and cost factor adopted Mean score value was used.

5. Analysis and Results

The table 1 represent the rank of the factors that the banking institution see for opening new bank branch or any point of services in any area. The factor 'the population size of the area' places 1st rank which indicate that this factor is the most factor considered by the banking institution when they want to open a new bank branch in any area. The 2nd rank was given to variable 'Free from extortion threats'. The 3rd rank was given to variable 'Safety for institution branch and official staff'. The 4th rank is 'Direct from higher official'. The 5th rank was given to variable 'Transportation factor'. The 6th rank was given to variable 'Quantum business of the institution'. The 7th rank was given to 'Request from local area /region'. The last rank is given to variable 'Unreached area first'.

Variables	Mean Score	Rank
The population size of the area	0.902929	1
Transportation factor	-0.23549	5
Quantum business of the institution	-0.00861	6
Direct from higher official	0.01081	4
Request from local area /region	-0.41644	7
Unreached area first	-0.56124	8
Safety for institution branch and official staff	0.223266	3
Free from extortion threats	0.404655	2

Table 1: Factors that the banking institution see for opening new bank Branch
Source: Primary Data

The below table 2 shows the mean score of variables and their respective rank. It's about the variable which has the highest rank are more influencing factor for hindering in open a new bank branch in the state. The first rank was given to variable that the cost of employee is very high.

Variables	Mean Score	Rank
The one-time payment cost for premises of a branch is very high	0.105915	4
The cost of fixed asset, furniture, fixture is very high	0.204857	3
The cost of electricity, stationary items , transportation and communication is high	0.307002	2
The cost of employee is very high	0.316387	1
The number of customer are very less	-0.68315	7
Strict norms by regulating authority	0.105915	4
Afraid of opening branch because safety of problem money demand (extortion)	-0.19398	6

Table 2: Cost Factors that Banking institution see while opening a new bank branch
Source: Primary Data

This is the most influencing factor for hampering in opening new insurance branch in the state. The second rank was given to variable that the cost of electricity, stationary items, transportation and communication is high. The third rank was given to variable - the cost of fixed asset, furniture, and fixture is very high. The fourth rank was given to two variable –the one-time payment cost for premises of a branch is very high and strict norms by regulating authority. The six rank was given to variable - Afraid of opening branch because safety of problem money demand (extortion) which is the least influencing factor for opening new branch in unreached area. Hence the study observed that the cost of penetration for providing banking services to unreached area in the state mostly matter in recurring cost involve place in high rank. The study concludes that safety from extortion and less customer is not the problem.

The table 3 shows the first method for finding the most influence factors for delivery. It shows the Z score of independent variables and their rank. It's about the variable which has the highest rank are more influencing factor for hindering in delivery of banking service in the state. The 1st rank was given to variable to 'Customer Financial Knowledge Factor'. The 2nd rank was given to variable to 'Geographical Physical Infrastructure Factor'. The 3rd rank was given to variable to 'Information and Technology Factor'. The 4th rank was given to variable to 'Institutional Operational Efficiency Factor'. The 5th rank is 'Socio-Economic Factor'. The least influencing factor for delivery of financial services was 'Institutional Infrastructure Availability Factor' since this variable took the last rank.

Factors	Mean Score	Rank
Customer Financial Knowledge Factor	1.310046	1
Institutional Infrastructure Availability Factor	-0.51375	6
Institutional Operational Efficiency Factor	-0.20492	4
Geographical Physical Infrastructure Factor	0.310695	2
Socio-Economic Factor	-0.32765	5
Information and Technology Factor	-0.19228	3

Table 3: Ranks assigned to challenging factors face by the institution while trying to provide banking Services
Source: Primary Data

5.1. Discriminant Analysis

Discriminant analysis estimate the relationship between a dependent variable and independent variables. This analysis will predict an independent variable which best separate and do better between two or more groups in a classification. Institutional Infrastructure Availability factor, Institutional Operational Effective factor, geographical Physical Infrastructure factor, Information and technological factor, socioeconomic factor and customer financial knowledge factor are six independent variables for discriminant analysis. And the dependent variable that is the level of banking penetration are calculated using similar methodology used by the United Nation Development Programmed (UNDP's computation of Human Development Index, Human Poverty Index) for the computation Index of Financial Inclusion (IFI). Banking penetration is computed by first calculating a dimension index value for the *ith* dimension d_i

$$d_i = \frac{(A_i - m_i)}{(M_i - m_i)}$$

Equation (1)

Where,

d_i = Value of *ith* dimension index

A_i = Actual value of dimension *i*.

m_i = minimum value dimension *i*.

M_i = maximum value dimension *i*.

Equation (1) confirms that $0 \leq$ Higher the value of d_i , the higher is the region's achievement in dimension *i*. If *n* dimension of banking penetration is considered, then a region *i* will be represented by a point $D_i = (d_1, d_2, d_3, d_4 \dots d_n)$ on the *n*-dimensional Cartesian space. Here the calculation of dimension index equation (1) is almost similar to the HDI computation. The only difference is we use

empirically observed minimum and observed maximum values instead of pre-fix values for maximum and minimum in HDI. Then, we calculated index level of banking penetration using the following formulas.

$$A_1 = \frac{\sqrt{((d_1^2 + d_2^2 + \dots + d_r^2))}}{\sqrt{r}} \text{Equation (2)}$$

$$A_2 = 1 - \frac{\sqrt{((1-d_1)^2 + (1-d_2)^2 + \dots + (1-d_r)^2)}}{\sqrt{r}} \text{Equation (3)}$$

$$BP_i = \frac{1(A_1 + A_2)}{2} \text{Equation (4)}$$

Where

BP_i = Index of Financial Inclusion of district i

A₁ = Normal Euclidian distance of from the worst point

A₂ = Normal Euclidian distance of from the ideal point

The equation (2) for A₁ represent the normalized Euclidean distance of A from the worst point W, normalized by the distance between the worst point W and the ideal point I. To make the value of A₁ lie between 0 and 1, normalization is applied. Higher value of A₁ implies more financial inclusion. A₂ equation (3) for represent the inverse normalized Euclidean distance of A from the ideal point I. In this, the numerator of the second component is the Euclidean distance of A from the ideal point I, normalizing it by the denominator and subtracting value 1 provides the inverse normalized distance. So, the value of A₂ also lie between 0 and 1. In this inverse distance also higher value of A₂ corresponds to higher financial inclusion. The BP_i formula (4) is an average of A₁ and A₂ by combining distances from both the worst point and the ideal point.

So, the proposed banking penetration takes values between 0 and 1. Zero indicating complete low banking penetration and 1 indicating very high banking penetration.

→ Positions for Banking Penetration

Value of Banking Penetration Index

Banking Penetration Position

0.5 < BP ≤ 1 High level banking penetration

0.3 ≤ BP < 0.5 Medium level banking penetration

0 ≤ BP < 0.3 Low level banking penetration

This index considered two dimensions such as available, and access of banking services to measure the BP_i. The dimension available of services measure by using bank branches per 1 lakh population, bank branches per 1000 square km, ATMs per 1 lakh population, ATMs per 1000 square km. The second-dimension access of services are measured by per capita deposit and per capita advance. The calculated results of index of financial inclusion for consecutive four years for each district are given below.

District	2015	Level of penetration
Chandel	0.05757	Low
Churachandpur	0.14844	Low
Bishnupur	0.06749	Low
Thoubal	0.14178	Low
ImphalWest	0.89528	High
ImphalEast	0.18761	Low

Table 4: Manipur district wise level of penetration of banks in 2015

Source: Calculate by the author based on SLBC report 2015 and Manipur Census 2011

The results show that out of the six district, there is only one district which have high level of banking penetration that is Imphal west district. Other remaining districts are showing low level of penetration. This variable has two group: low and high.

5.2. Discriminant Analysis Result

Now the discriminant function analysis was run using above dependent variables and six independent variables. The below analysis shows that the predictive accuracy of original group case classified correctly is 85.1% and 76.6% the cross validation grouped cases (see Tables 5 and table 6).

		Predicted group membership	
Actual Group	No. of cases	High	Low
High	37	35(94.6 %)	2(5.4%)
Low	10	5(50%)	5(50%)

Table 5: Hit ratio for cases selected in the analysis

Actual Group	No. of cases	Predicted group membership	
		High	Low
High	37	33(89.2%)	4(10.8%)
Low	10	7(70%)	3(30%)

Table 6: Hit ratio for cross validation*

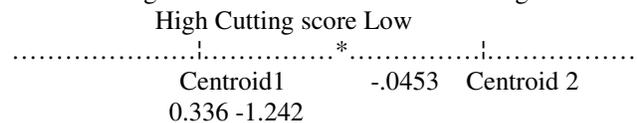
Cross validation is done only for those cases in the analysis. In cross validation, each case is classified by the functions derived from all cases other than that case.

Now to classify two group uniquely in a discriminant function, the cutting score was calculated. The cutting score is the score used for making the classification matrix. Formula for cutting score (unequal group case) is given below:

$$Z_{cs} = \frac{Z_a + Z_b}{2}$$

Where, Z_{cs} = Optimal cutting score for equal group size, Z_a = Centroid for Group A, Z_b = Centroid for Group B.

So, the calculated cutting score is -.0453. It is shown in diagram.



From Canonical Discriminant functions, it is states that 30.36% (square of Canonical correlation value 0.551) of the variance in the dependent variable was accounted. The most to least influencing factors to delivery of banking services are given in summary of the discriminant analysis.

Independent Variable	Standardized	Unstandardized	Discriminant Loading(Rank)
Cusfact	0.829	2.217	0.76(1)
InformTechFact	0.12	0.132	0.261(3)
SocioFact	-0.337	-0.576	-0.95(6)
InsInfraAvaiFact	0.09	0.23	0.248(4)
InsOpEffFact	-0.476	-0.972	-0.130(5)
GeoFact	0.554	1.423	0.402(2)

Table 7: Summary of the discriminant analysis

The table 7 shows that, if higher the value of the reciprocal relationship observed, the more will be the influencing factors for low delivery of banking services. In this analysis, four variables are having positive value. That means it is the highest influencing factors while delivering banking services and negative value indicate the low influencing factors. Here, Lack of customer financial knowledges is the most influencing factor in delivery of banking services in Manipur. So, the customer who have good financial knowledge will have high possibility of using more banking services. Second most influencing factor is Geographic factor. The least influencing factor was 'Institutional operational efficiency Factor' since this variable took the last rank.

6. Suggestion to Improve the Delivery of Banking Services

Even though, the state educated people are aware and use some of the available financial services, technology, the many of the people still not aware of different financial products and services. For those who aware also feel difficult to use because of fear if something goes wrong. So, financial institutional regulatory body should give more financial literacy programmed about their services and products.

From many studies, it is shown that an innovative and new technology were very valuable tool for delivering banking products and services in remote areas as well as both. Therefore, Banks or any others financial providers should give wide publicity on new technologies available and their uses. These can be published at grocery stores, bigger shops, super markets, community hall etc. So, that everyone can see easily from that places.

As the spreading of banks access point, innovative and new technology services were related to the infrastructure. The state government and higher official social worker need to give more effort on the development of physical infrastructure especially electricity, telecommunication and roads to increase the confidence of the many financial players who are looking for potential customer in the state. Hence the expansion as well as accessibility of services will enhance.

7. Conclusion

This study estimates the probable factors responsible for hindering the delivery of banking services. For opening a new bank branch, the institutions see population size of the area first and their safeness. The banks do not much consider about their quantum of business. In terms of cost factors, recurring cost is important since it is costly. And banking institution most influencing factor while

delivering banking services is lack of 'Customer Financial Knowledge Factor', followed by 'Geographical Physical Infrastructure Factor'. If the above given factors improve, the level of delivery of banking services will be enhanced.

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