FINANCIAL INCLUSION STATUS IN NORTH EASTERN REGION: AN EVIDENCE OF COMMERCIAL BANKS

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Abstract
Without having a deposit or saving account in formal financial institution people will keep their saving money in informal financial institution which gave them return at higher rate initially but uncertain to get back their initial investment amount. A bank account is a primary requirement which enables access to any banking service or product. As per the national level data, a large percentage of the population in North-eastern Region still excluded from banking services. In this circumstance the present study looks into the disparity in financial inclusion among North-eastern Region and aggregate India in regard to the expansion of banking coverage and usage of banking services. The period of the study is from 2012-2013 to 2017-2018. The results corroborate the fact that there is significant difference between the aggregate India and North-eastern Region.

Keywords: Commercial Banks, Financial Inclusion, North-eastern Region.

JEL Classification: G20, G21

INTRODUCTION
Financial inclusion signifies opening of bank account in a bank, opening of post office saving account in a post office or post bank or deposit/ saving account in other formal financial institution for those that have never had one for allowing them to receive government subsidy, deposit own saving for future requirement etc. (Maity & Sahu, 2018). At an individual level, access to banking services can improve the standard of living and break the vicious circle of poverty (Dangi, 2013). Financial inclusion in terms of the number of deposit and loan accounts leads to better economic development and growth (Sharma, 2016).

The objective of financial inclusion is to mobilize deposit and disbursement of credit through opening of accounts (Maity & Sahu, 2019). The opening of banks accounts is not only essential for maintaining and improving their social and economic status of a person but also is essential for meeting all needs (Kodan & Chhikara, 2011). In developed countries, and in some developing countries like India, the government has used branch expansion policies to

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ensure that banks open branches where poor people dwell (Panagariya, 2006). An account in formal financial institution can stimulate saving and uncovered access to credit (Srinivasan, 2007). It also ensures access to formal credit for people who depend on informal means for their financial needs and also financial education to ensure that the poor and marginalized make the best use of their money (Chakravarty & Pal, 2013). Around the world, for most people having an account at a financial institution serves as an entry point into the formal financial sector (Kunt and Klapper, 2013). The present study investigates the status of financial inclusion in North-eastern Region (NER). The NER comprises of seven states with Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura. Before going in detail to other chapters researcher has present here the concept and definitions of financial inclusion to have a clear understanding of the present study.

**Financial Inclusion: Concept and Definitions**

Financial inclusion is defined differently by different academics and financial institutions time to time (Sen, A., 2000; Annan, K., UN Secretary-General, 2003; United Nations, 2006; Committee on Financial Inclusion, Indian government, 2008; etc.). Their concept and definitions of financial inclusion almost are in the same line of lack of financial access or full participation by the all population which can improve their income and living standard and contribute to the development.

From the concepts and definitions, in broad terms, the researcher may describe it as a provision of savings and loan services to poor in an inexpensive and easy to use form. It includes an opening of bank accounts for those that have never had one and allowing people to send and receive money easily with secured manner.

**REVIEW OF LITERATURE**

There exist a considerable number of research studies on different aspect of financial inclusion. Apex organizations, including International Monetary Fund (IMF), World Bank, G-20 nations and others, have undertaken financial inclusion as the key agenda item. The previous literature collected on recent studies have been summarised below:

Ansong et al. (2015) have conducted a study on availability of branch based banks in Ghana. They used branch location data in Ghana and demographic data on districts from Ghana’s 2010 census. According to Kumar & Mohanty (2011), the policy of financial inclusion, an important common goal of the SAARC countries, includes nationalization and regulation of banks, branch expansion, etc. Alama and Ausina (2012) in their analysis explored the determinants of bank branch location in Spain, with a special focus on their implications for financial exclusion. According to Beck et al. (2007), higher branch and higher Automated
Teller Machine (ATM) strengthen geographic and demographic terms as indicative of greater access to the use of financial services by households. Apart from that, Evanoff (1988) in his analysis test whether branching affects service accessibility. Kumar (2013) has examined the status of financial inclusion in Indian context and concludes that branch density is having strong positive impact on financial inclusion drive. Also Chakravarty and Pal (2013) have identified the geographic penetration of banks and credit availability as two policy targets to foster financial inclusion in India. Higher geographic and demographic penetration indicates easier access and smaller distance between the bank and customer (Beck et al., 2007). According to Mahadeva (2008), financial institutions play their own role in increasing access to households, especially in rural location. Without presence of bank offices, there can be no access to banking for people.

Kodan & Chhikara (2011) have attempted to analyze the status of financial inclusion in Haryana and also to compare it with aggregate India. Pathania et al. (2016) have investigated case of 4 banks i.e. SBI, J&K Bank, Punjab National Bank and Jammu Kashmir Grameen Bank in J&K to deliberate upon the current quality parameters undertaken by these banks for financial inclusion of rural population thereby finding the gaps that need to be addressed as part of innovative financial inclusion. Das & Guha (2015) have investigated the regional disparity of Scheduled Commercial Banks (SCBs) in India in terms of branch, deposits and credits. Kodan et al. (2011) have examined the status of financial inclusion in seven north-eastern Indian states and policy adopted by Reserve Bank of India (RBI). Ramji (2009) has reviewed how households and banks influence process of becoming ‘banked’. Maity & Sahu (2019) in their recent study have investigated the regional disparity on financial inclusion. Shafi & Medabesh (2012) have investigated the financial exclusion problem in J&K and impact of initiatives taken by RBI and what more needs to be done to achieve full and meaningful financial inclusion. Chakraborty & Barman (2013) have studied the challenges and opportunities of financial inclusion in Tripura with the primary data. Cnaan et al. (2012) have investigated whether financial inclusion has been successfully implemented in Andhra Pradesh, Kerala, Karnataka and Tamil Nadu of Southern India. According to them, without bank access monetary services will be far more expensive and that only beneficiaries are likely to be local money-lenders. Gupta (2014) has evaluated the scope of financial inclusion in India vis-à-vis other developing & developed nations.

Most of the previous studies concentrated on some micro concept rather macro concept. By considering the research gap present study looks for at macro concept and considers all the seven states of NER and aggregate India for analyzing the data to get valuable results.
Objectives of the study
The primary aim of this paper is to examine the financial inclusion status in North-eastern Region with respect to various financial inclusion dimensions and compared it with the aggregate status of India. The study sets the following research objectives:
1. To analyse the financial inclusion status in North-eastern Region.
2. To compare the financial inclusion status of North-eastern Region with aggregate India.
To study the above objectives researcher has sets the following hypotheses.
Hypothesis-I:
Null Hypothesis (H₀): There is no significant difference of branch per million of population between aggregate India and North-eastern Region.
Alternative Hypothesis (H₁): H₀ is not true.
Hypothesis-II:
Null Hypothesis (H₀): There is no significant difference of branch per 1,000 km² between aggregate India and North-eastern Region.
Alternative Hypothesis (H₁): H₀ is not true.
Hypothesis-III:
Null Hypothesis (H₀): There is no significant difference on number of deposit accounts per thousand of population between aggregate India and North-eastern Region.
Alternative Hypothesis (H₁): H₀ is not true.
Hypothesis-IV:
Null Hypothesis (H₀): There is no significant difference on number of credit accounts per thousand of population between aggregate India and North-eastern Region.
Alternative Hypothesis (H₁): H₀ is not true.

RESEARCH METHODOLOGY
The present study is primarily empirical in nature. The study is entirely based on secondary data for the study period from 2012-2013 to 2017-2018. The relevant bank related data has been collected from the various annual report of Reserve Bank of India. Data of region wise and overall population and land-area have been collected from Census of India. To make a suitable comparison between North-eastern Region and aggregate India in regard to expansion of banking coverage and usage of banking services t-test has been run. The study uses Excel and SPSS for processing the data and conducting the tests. Further, to capture the growth rate, researcher has used Compound Annual Growth Rate (CAGR). The CAGR is a useful measure of growth over multiple time periods.
Variables of the study
To investigate the present study researcher has considers various financial inclusion dimensions. Different previous studies consider different financial inclusion dimension to measure the financial inclusion of different regions. Among them most commonly used indicators are branch per million of population, branch per 1,000 km², number of deposit accounts per thousand of population and number of credit accounts per thousand of population. These four dimensions considered in the present study for analysing the data and for suitable comparison and drawing inferences.

ANALYSIS AND DISCUSSIONS
Number of bank branches express availability of banking services (Kumar, 2013). Table 1 reveals the availability of banking services in terms of branch per million of population and branch per 1,000 km² from March 2013 to March 2018. Availability of banking services is the major component of financial inclusion. It is evident from the table that the number of branch have continuous been increased in NER as well as aggregate India from 2,823 and 106,535 in March 2013 to 4,267 and 143,191 in March 2018 respectively. Due to increase of number of branches at a higher rate than the increase of population, number branch per million of population also increases. Further branch per 1,000 km² of India and NER also increases at 6.09 percent and 8.61 percent respectively. Branch per 1,000 km² in India increase from 32 to 44 and in NER it increase from 11 to 17 only. In India branch per million of population increase from 86 to 106 at a CAGR of 4.37 percent and in NER it increase from 62 to 86 at a CAGR of 6.90 percent. So availability of banking services in NER is much lower than the aggregate India. Due to low banking coverage in NER, researcher finds higher growth rate of bank branch which is higher than the aggregate India considering the yearly growth from March 2013 to March 2018. T-test has also been applied to check the significant difference between availability of banking services in NER and India from March 2013 to March 2018. The value of t-test, statistically significant at 1 percent level of significance, indicate that the there is significant difference of number of branch per million of population and branch per 1,000 km² between aggregate India and NER.
Table 1: Availability of Banking Service in India and North-eastern Region

<table>
<thead>
<tr>
<th>Year</th>
<th>India No. of Branch</th>
<th>Branch per million of population</th>
<th>Bank Branch per 1,000 km²</th>
<th>North-eastern Region No. of Branch</th>
<th>Branch per million of population</th>
<th>Bank Branch per 1,000 km²</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-2013</td>
<td>1,06,535</td>
<td>86</td>
<td>32</td>
<td>2,823</td>
<td>62</td>
<td>11</td>
</tr>
<tr>
<td>2013-2014</td>
<td>1,17,954</td>
<td>94</td>
<td>36</td>
<td>3,214</td>
<td>69</td>
<td>13</td>
</tr>
<tr>
<td>2014-2015</td>
<td>1,26,628</td>
<td>99</td>
<td>39</td>
<td>3,363</td>
<td>71</td>
<td>13</td>
</tr>
<tr>
<td>2015-2016</td>
<td>1,35,578</td>
<td>104</td>
<td>41</td>
<td>3,970</td>
<td>83</td>
<td>16</td>
</tr>
<tr>
<td>2016-2017</td>
<td>1,40,617</td>
<td>106</td>
<td>43</td>
<td>4,151</td>
<td>85</td>
<td>16</td>
</tr>
<tr>
<td>2017-2018</td>
<td>1,43,191</td>
<td>106</td>
<td>44</td>
<td>4,267</td>
<td>86</td>
<td>17</td>
</tr>
<tr>
<td>CAGR</td>
<td>6.09</td>
<td>4.37</td>
<td>6.09</td>
<td>8.61</td>
<td>6.90</td>
<td>8.61</td>
</tr>
</tbody>
</table>

Source: RBI Database and Researcher’s calculation

Table 2 expresses the status of financial inclusion of India along with NER in term of deposit accounts per thousand of population. It is evident from the table that the number of deposit accounts have continuous been increased in NER as well as aggregate India from 26 million and 1045 million in March 2013 to 59 million and 1912 million in March 2018 respectively. In India deposit accounts per thousand of population increase from 842 to 1419 at a CAGR of 11.00 percent and in NER it increase from 569 to 1190 at a CAGR of 15.88 percent. So availability of banking services in NER is much lower than the aggregate India. Due to low banking coverage in NER researcher finds 17.73 percent growth rate of deposits accounts which is higher than the aggregate India considering the yearly growth from March 2013 to March 2018. The value of t-test, statistically significant at 5 percent level of significance, indicate that the there is significant difference on deposit accounts per thousand of population between aggregate India and NER.

Table 3 explores the status of financial inclusion of NER along with aggregate India in term of credit accounts per thousand of population from March 2013 to March 2018. It is evident from the table that the number of credit accounts have continuous been increased in NER as well as aggregate India from 3 million and 128 million in March 2013 to 6 million and 197 million in March 2018 respectively. The table also depicts that number of credit accounts per thousands of population in NER have been only 62 and 116, while at aggregate India it has been 103 and 146 as on March 2013 and March 2018 respectively. Due to low banking coverage in NER researcher finds 15.13 percent and 13.31 percent growth rate of credit accounts and number of credit accounts per thousands of population respectively which is higher than the aggregate India considering the yearly growth from March 2013 to March 2018. The value of t-test, statistically significant at 1 percent level of significance, indicate that the there is significant difference on credit accounts per thousand of population between aggregate India and NER.
Table 2: Trends of Financial Inclusion (Deposit Accounts) in India and North-eastern Region

<table>
<thead>
<tr>
<th>Year</th>
<th>India</th>
<th>North-eastern Region</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of deposit accounts (in Million)</td>
<td>Number of deposit accounts per thousands of population</td>
</tr>
<tr>
<td>2012-2013</td>
<td>1045</td>
<td>842</td>
</tr>
<tr>
<td>2013-2014</td>
<td>1227</td>
<td>973</td>
</tr>
<tr>
<td>2014-2015</td>
<td>1440</td>
<td>1123</td>
</tr>
<tr>
<td>2015-2016</td>
<td>1646</td>
<td>1263</td>
</tr>
<tr>
<td>2016-2017</td>
<td>1827</td>
<td>1379</td>
</tr>
<tr>
<td>2017-2018</td>
<td>1912</td>
<td>1419</td>
</tr>
<tr>
<td>CAGR</td>
<td>12.83</td>
<td>11.00</td>
</tr>
</tbody>
</table>

Source: RBI Database and Researcher’s calculation

Table 3: Trends of Financial Inclusion (Credit Accounts) in India and North-eastern Region

<table>
<thead>
<tr>
<th>Year</th>
<th>India</th>
<th>North-eastern Region</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of credit accounts (in Million)</td>
<td>Number of credit accounts per thousands of population</td>
</tr>
<tr>
<td>2012-2013</td>
<td>128</td>
<td>103</td>
</tr>
<tr>
<td>2013-2014</td>
<td>139</td>
<td>110</td>
</tr>
<tr>
<td>2014-2015</td>
<td>144</td>
<td>112</td>
</tr>
<tr>
<td>2015-2016</td>
<td>162</td>
<td>125</td>
</tr>
<tr>
<td>2016-2017</td>
<td>172</td>
<td>130</td>
</tr>
<tr>
<td>2017-2018</td>
<td>197</td>
<td>146</td>
</tr>
<tr>
<td>CAGR</td>
<td>8.95</td>
<td>7.18</td>
</tr>
</tbody>
</table>

Source: RBI Database and Researcher’s calculation

Table 4 explores the results of hypothesis test. The results corroborate the fact that there is significant difference in various financial inclusion dimensions between the aggregate India and North-eastern Region.

Table 4: Results Summary of 't' Test for unequal variance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Null Hypothesis (H₀)</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch per million of population</td>
<td>There is no significant difference of branch per million of population between aggregate India and North-eastern Region.</td>
<td>Null Hypothesis is rejected at 1% level of significance</td>
</tr>
<tr>
<td>t - Value</td>
<td>4.34</td>
<td></td>
</tr>
<tr>
<td>p - Value</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Bank Branch per 1,000 km²</td>
<td>There is no significant difference of branch per 1,000 km² between aggregate India and North-eastern Region.</td>
<td>Null Hypothesis is rejected at 1% level of significance</td>
</tr>
<tr>
<td>t - Value</td>
<td>12.45</td>
<td></td>
</tr>
<tr>
<td>p - Value</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>
**Findings of the Study**

1. Fisher’s T-test clearly indicates that there is significant difference of branch per million of population between aggregate India and NER. This result is significant at 1% level. The results further find that branch per million of population in NER is much lower than aggregate India. Though growth rate in NER is marginally higher than aggregate India.

2. There is significant difference of branch per 1,000 km² between aggregate India and NER. This result is significant at 1% level. The results further find that branch per 1,000 km² in NER is much lower than aggregate India. Though growth rate in NER is marginally higher than aggregate India.

3. There is significant difference on number of deposit accounts per thousand of population between aggregate India and NER. This result is significant at 5% level. The results further find that number of deposit accounts per thousand of population in aggregate India much higher than NER.

4. There is significant difference on number of credit accounts per thousand of population between aggregate India and NER. This result is significant at 1% level. The results further find that number of credit accounts per thousand of population in aggregate India much higher than NER.

**Interpretation of the Study**

The results is in line with the previous empirical studies by Goyal (2008), Mahadeva (2008), Kodan et al. (2011), Bhanot et al. (2012), Boro (2015); and Das & Guha (2015). In their study they found that position of financial inclusion in north-eastern states of India, was found to be poor in comparison to the all-India level.

**CONCLUSION**

To cover banking business in all unbanked areas, history says the RBI and Government have taken several initiatives from bank nationalization to new banking license for expanding of
bank branches all over India. Even after seventy one years of independence and almost fifty years of bank nationalization still a large percentage of population are excluded from formal financial services. The result of the present study also shows that the financial inclusion status of NER which is much lower than overall average in India. And there is significant difference between aggregate India and NER in respect of various financial inclusion dimensions considered in the present study. Lower inclusion in NER finds due to geographical location, economic factors, social factors etc. Maintaining a dense network of physical branches is a high-cost proposition. In this situation banks can think on implementing digital banking through internet, mobile etc. rather opening of bricks and mortar branches with huge investment.

In conclusion, researcher is of the opinion that the cherished goal of Universal Financial Inclusion can be achieved only through synergistic efforts between the mainstream financial entities and fringe players like rural co-operatives, MFI's, NBFCs, NGOs, credit societies, etc. All of them have to play a complementary role in championing the cause of financial inclusion (Shah, 2018).

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