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C O N T E N T S

Revisiting Financial Inclusion through Geographic and Demographic Penetration: A Cross Sectional District Level Study of Assam

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Abstract

This study examines the influence of banking service accessibility on financial inclusion in the state of Assam, focusing specifically on the geographical and demographic penetration of banking infrastructure across its 33 districts. Financial inclusion is a critical aspect of economic development, particularly in regions with diverse socio-economic characteristics. Assam, being the largest state in the North Eastern Region of India, presents a unique case for studying financial inclusion due to its geographic challenges and varying levels of economic development across districts. The study aims to estimate how the spatial distribution of banking services, in terms of branch and ATM density, impacts financial inclusion in the state. Using a cross-sectional analysis of data from the year 2021-22, the study employs OLS regression to assess the relationship between financial inclusion, measured as deposit accounts per capita, and the geographical and demographic spread of banking services. Geographic penetration is quantified using branch and ATM density per 1000 km2, while demographic penetration is represented by branch and ATM density per 1000 population. The study tests two hypotheses: (1) the geographical penetration of banking services across districts in Assam has a significant relationship with the state's financial inclusion levels, and (2) the demographic penetration of banking services is significantly associated with financial inclusion. The results reveal that geographical penetration has a statistically significant positive effect on financial inclusion, suggesting that the physical availability of banking services across different areas is crucial for promoting financial access. Districts with a higher density of branches and ATMs per km2, such as Kamrup Metro and Jorhat, consistently rank higher in terms of financial inclusion, indicating that a strong banking presence significantly enhances access to financial services. In contrast, demographic penetration does not show a statistically significant effect. This suggests that while the availability of banking infrastructure is essential, other demographic factors such as income levels, financial literacy, and digital banking access may also play a role in determining the actual utilization of banking services. The findings highlight the importance of enhancing the geographical spread of banking services to achieve greater financial inclusion in Assam. Policymakers should prioritize the expansion of physical banking infrastructure in underserved districts, particularly in areas like Goalpara and Dima Hasao, which rank low in both geographic penetration and financial inclusion. While the demographic dimension of banking penetration may not have a direct significant impact, it remains an area for further exploration, as improving financial literacy and promoting digital financial services could complement efforts to boost financial inclusion.

Keywords: Financial Inclusion, Assam, Geographic and Demographic Penetration, Branch and ATM Density

Introduction

Recently, the importance of addressing the banking needs of marginalised and economically disadvantaged populations has become more prominent (Ozili, 2021). Financial inclusion, which originated in 1993, contrasts with financial exclusion, which obstructs the access of vulnerable social groups to formal financial systems (Veena, 2022). Financial inclusion involves the provision of reasonable and timely banking products and services to both individuals and business concerns, playing a crucial role in economic growth, eradicating poverty, and maintaining financial stability. Achieving greater financial inclusion requires implementing measures, such as broadening digital financial services, creating tailored products or services for disadvantaged communities, and enhancing financial literacy through educational and awareness initiatives. Financial inclusion disparities between men and women are noteworthy on a global scale with significant discrepancies in access levels (Deléchat et al., 2018). Enhancing financial inclusion is a complex undertaking that necessitates considering the multiple changes occurring in the realms of economics, societal patterns, and politics (Siano et al., 2020). The current literature largely focuses on financial inclusion, which is mainly supported by institutions such as banks, rather than investigating alternative approaches (Khera et al., 2022). Financial inclusion encompasses not only its economic ramifications, but also serves as a socioeconomic principle that contributes to improved living standards through access to education, healthcare facilities, and overall security (Menon, 2019).

Research on financial inclusion has been conducted extensively in India to gain a deeper understanding of the concept. Although considerable progress has been made towards universal financial inclusion, India's diverse landscape necessitates the development of innovative models to accelerate this process and promote economic growth (Barik & Sharma, 2019). Policymakers have formulated diverse definitions for financial inclusion, and in the last ten years, they have put forth policy frameworks aimed at realising this objective (Sharma et al., 2020). Financial inclusion is a vital element for the financial industry's overall growth, especially in developing economies like India, where it is a crucial aspect of the broader financial sector's development (Lenka, 2021). Different methods of obtaining and utilising financial services can be used to evaluate the extent to which individuals have access to, and derive benefits from, these services (Geraldes et al., 2022). Moreover, progress in online financial services has greatly accelerated efforts towards achieving financial inclusion (Shen, 2022).

In recent years, Indian policymakers and financial regulators have rolled out a series of initiatives to enhance financial inclusion. For instance, Pradhan Mantri Jan Dhan Yojana was introduced in 2014 to provide comprehensive banking services, while Small Finance Banks were granted differentiated licences w.e.f. 2015. In 2019, the National Strategy for Financial Inclusion was launched, with a goal of achieving universal inclusion by 2024. Additionally, the Business Correspondent model was adopted to extend services to remote areas, and the Financial Inclusion Index was implemented in 2021 to measure the effectiveness of inclusion efforts. Moreover, technology, particularly UIDAI Aadhaar, has been integrated to improve the accessibility to financial services. These initiatives demonstrate a well-rounded strategy that leverages regulatory frameworks, targeted programs, and technological advancements to expand financial access and promote economic inclusivity.

Literature Review

The effects of financial inclusion on economic growth, poverty alleviation, and disparity have been extensively studied in India, with a multitude of factors and outcomes examined for the purpose of policy formulation. Some of these previous studies conducted on the phenomenon are reviewed as follows:

Saha and Alam (2022) revisited the idea of financial inclusion as it relates to human development, uncovering a volatile pattern that highlights the necessity for ongoing efforts to integrate financial inclusion with broader development goals. Nautiyal and Ismail (2022) concluded that solely augmenting literacy rates and investment awareness may not be adequate to propel financial inclusion and emphasised the role of branch density in shaping financial inclusion.

Sharma (2016) conducted a study that unveiled an exclusive financial inclusion index designed specifically for analysing the different states of India. This index offers a comprehensive perspective on the correlation between financial inclusion and economic development. Barik and Sharma (2019) investigated the development and possibilities of financial inclusion in India, highlighting the improvements that have been made in this area across various states in India between 2001 and 2014. According to Iqbal and Sami (2017), bank and government interventions are crucial for promoting financial inclusion in India, which is essential for achieving sustainable economic growth. They also emphasised the need for state-level policy measures to support this effort. Singh and Yadava (2021) assessed the level of technical efficiency related to financial inclusion, while also examining its association with human development indicators in various Indian states. Their study revealed that states with higher human development indices generally exhibit a more favourable standing when it comes to financial inclusion. Sethy (2015) formulated a Financial Inclusion Index, which classifies India's financial inclusion landscape into distinct time periods and dimensions.

Maity and Sahu (2021) found that Assam had a distinct financial inclusion landscape that differed significantly from that of the rest of India. In a similar vein, Dar and Ahmed (2020) investigated the factors that influence financial inclusion in remote regions, such as Assam, and offer significant insights into the determinants of financial inclusion in this particular area. Additionally, Das et al. (2021) further examined the lower Brahmaputra Valley of Assam, uncovering repayment determinants, offering insights into financial behaviours, and access to credit in this region.

Based on the aforesaid information, it is evident that there is a dearth of research at the district level in Assam. Additionally, there have been no investigations carried out thus far to analyze how geographic and demographic factors affect the accessibility of banking services across various districts within the state. Assam is the largest state in the North Eastern Region, with a population of 31,205,576 and an area of 78,438 km2, making it the second largest state in terms of size.

The northern part of the state is bordered by Bhutan and Arunachal Pradesh, whereas the eastern part is bordered by Nagaland, Arunachal Pradesh, and Manipur. Additionally, it shares its southern border with Meghalaya, Tripura, Mizoram, and Bangladesh, and its western border with West Bengal. The present study seeks to address the lack of information in the existing literature.

Objectives of the Study

- To analyse the financial inclusion, geographic, and demographic penetration of banking services across the districts of Assam.
- To estimate the effects of the geographic and demographic spread of banking services on financial inclusion within the state of Assam.

Hypotheses of the Study

The study proposes that extent to which banking services are accessible across the districts of Assam in terms of their geographical and demographic penetration has a significant impact on the state's financial inclusion. Based on this proposition, the study aims to test the following hypotheses:

H1:The geographical penetration of banking services across districts in Assam has a significant relationship with the state's financial inclusion levels.

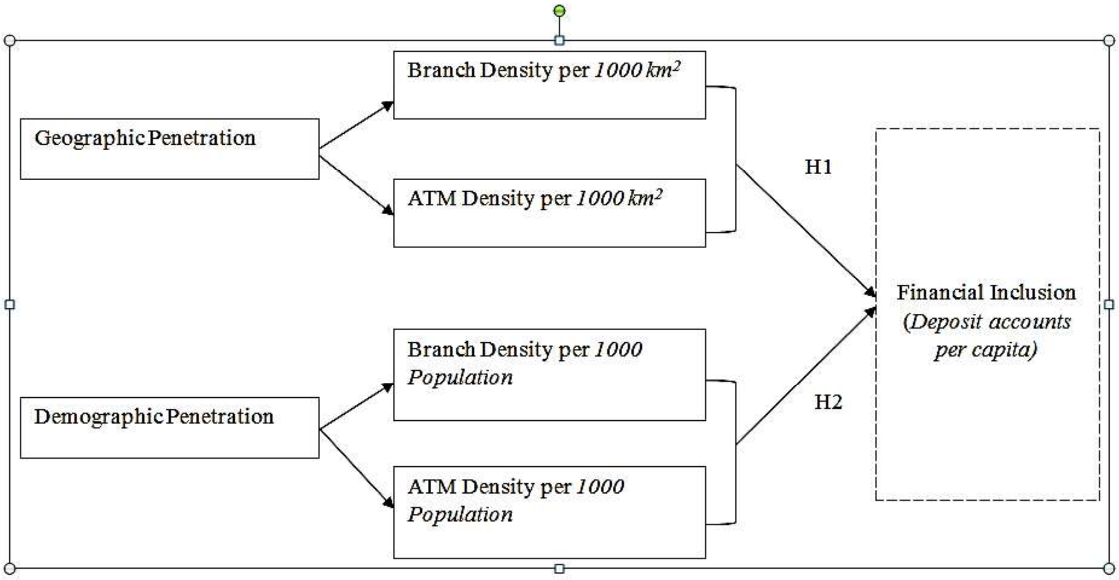
H2: The demographic penetration of banking services across districts in Assam is significantly associated with the state's financial inclusion levels.

Conceptual Framework

The study is built around the idea that financial inclusion is driven by the accessibility of formal banking services. In this context, the penetration of banking infrastructure, which is both geographically and demographically, plays a crucial role. Thus, the conceptual framework underpinning the role of banking infrastructure penetration in enhancing financial inclusion is grounded in access theory, which posits that availability and accessibility of financial services are critical determinants of inclusive growth. For example, according to Beck and Demirgüç-Kunt (2008), financial inclusion is essential for poverty reduction and economic growth, particularly in low- and middle-income countries. Increased access to financial services empowers individuals to save, invest, and manage risks, which in turn fosters economic development and reduces inequality. Furthermore, the theory of spatial economics (Krugman, 1991) suggests that the physical distribution of services, such as banking infrastructure, is a critical determinant of service accessibility. In regions where the geographical spread of services is limited, people face greater obstacles in accessing these services, leading to lower levels of financial inclusion. Concisely, it can be stated that geographical and demographic penetration serve as twin pillars that directly influence how well financial services are distributed and utilized across different regions and population groups. Geographic penetration refers to the number of bank branches relative to land area, whereas demographic penetration measures the number of branches relative to the population size (Maity & Sahu, 2021; Maity, 2019).

Moreover, Geographical penetration refers to the spatial distribution of financial infrastructure, such as bank branches, ATMs, and digital banking facilities, relative to the population's location. According to the spatial mismatch hypothesis, physical distance between financial service providers and potential users acts as a key barrier to inclusion, particularly in underserved and remote regions. The greater the concentration of banking infrastructure across districts, the more likely individuals are to access and utilize formal financial services, reducing the reliance on informal lending systems. Studies have shown that regions with higher geographical penetration tend to have better access to financial services, driving deeper integration into the formal economy (Beck et al., 2007). On the other hand, demographic penetration focuses on ensuring that banking services are equitably accessible to various population segments, especially marginalized groups such as women, rural households, and low-income populations. Demographic penetration addresses the socio-economic barriers that inhibit access, even in regions with a strong geographic banking presence. For example, women and rural populations often face cultural, informational, and economic barriers that prevent them from fully engaging with formal financial institutions (Demirgüç-Kunt & Klapper, 2012). By designing banking services that are tailored to the needs of these groups—through initiatives like mobile banking, microfinance, and simplified account opening processes—demographic penetration ensures that financial services reach beyond the urban, male-dominated segments, thus promoting a more inclusive financial system. Together, geographical and demographic penetration synergistically enhance financial inclusion. While geographical infrastructure expands physical access, demographic-oriented strategies help overcome socio-cultural and economic impediments. This dual approach increases both the reach and usage of banking services, driving financial inclusion, which in turn fosters economic participation, poverty reduction, and social equity (Cull et al., 2014). Having this backdrop, the present study is based on the following conceptual model (Figure 1):

Figure 1: Conceptual Model



Source : Author's Own Conceptualistion

Database and Methodology

The study relies on quantitative data sourced from the Statistical Handbook of Assam and the RBI database. For the cross-sectional analysis of 2021-22, data has been collected from all 33 districts in Assam. To accomplish the initial objective, rankings are utilized to facilitate comparisons between the districts. For attaining the second objective, OLS regression is used, contingent upon satisfying the assumptions of the estimation model. To assess heteroskedasticity, autocorrelation, and multicollinearity, the study has used the Breusch-Pagan-Godfrey Heteroskedasticity Test, Durbin Watson Statistic, and Variance Inflation Index (VIF), respectively.

In addition, the study uses deposit accounts per capita as a proxy for defining financial inclusion. The extent of geographic and demographic coverage is assessed using branch and ATM density. To assess the geographic penetration of banking services, the study uses branch density per 1000 km2 and ATM density per 1000 km2 as proxies, while demographic penetration is assessed using branch density per 1000 population and ATM density per 1000 population. Financial inclusion is regarded as the dependent variable in the estimation model, which is regressed against independent variables, including geographic and demographic banking service penetration, in terms of branch and ATM density parameters.

The relationship between financial inclusion and the penetration of banking services can initially be modelled as:

$$Financial\ Inclusion_i = \beta_0 + \beta_1 Geographic\ Penetration_{\ i} + \beta_2 Demographic\ Penetration_{\ i} + \varepsilon_i \dots\dots\dots\dots\dots\dots Eq.1$$

Where, $Financial\ Inclusion_i$ indicates the extent of financial inclusion in the i[th] district; $Geographic\ Penetration_{\ i}$ and $Demographic\ Penetration_{\ i}$ are the independent variables in the i[th] district; β_0 indicates the intercept term; $\beta_1$and $\beta_2$are the coefficients associated with the respective independent variables, reflecting the influence of geographic and demographic penetration on financial inclusion; ε_i is the error term.

The above equation can further be refined by incorporating branch and ATM density as specific measures of geographic and demographic penetration, leading to the following two formulations:

$$Financial\ Inclusion_i = \beta_0 + \beta_1 Branch\ Density\ per\ 1000\ km2_{\ i} + \beta_2 Branch\ Density\ per\ 1000\ population_{\ i} + \varepsilon_i \ldots Eq. 1.1$$

Eq. 1.1 evaluates the impact of branch density on financial inclusion in the ith district; β_1 represents the influence of the number of bank branches per 1000 km2 (a measure of geographical penetration), while β_2 represents the effect of the number of branches per 1000 population (a measure of demographic penetration).

$$Financial\ Inclusion_i = \beta_0 + \beta_1 ATM\ Density\ per\ 1000\ km2_{\ i} + \beta_2\ ATM\ Density\ per\ 1000\ population_{\ i} + \varepsilon_i \ldots \ldots Eq. 1.2$$

Eq. 1.2 assesses how ATM density influences financial inclusion in the i^{th} district; β_1 measures the effect of the number of ATMs per 1000 km^2 (geographic penetration), while β_2 captures the effect of ATMs per 1000 population (demographic penetration).

Results and Discussion

Financial Inclusion through Geographic and Demographic Penetration: Comparison across the Districts of Assam

When analysing the rankings of the districts based on the variables such as deposit account per capita, branch density per 1000 km² and per 1000 population, and ATM density per 1000 km² and per 1000 population, it is observed that certain districts consistently performed well, while others show varied performance across these metrics (as depicted in Table 1).

Kamrup Metro is found to be the most prominent district in terms of banking infrastructure and financial access, consistently achieving the 1st rank in respect of all the variables. This suggests that residents of the district have the highest level of access to banking services, both in terms of physical banking locations and availability of banking accounts relative to the population. Jorhat follows closely behind, securing the 2nd rank in all the parameters, indicating a strong financial infrastructure that supports its residents' banking needs. This high ranking of the district points to its comprehensive banking coverage and availability of financial services to its population. Nagaon, while securing the 3rd rank in deposit account per capita and branch density per 1000 km², shows a lower ranking in ATM density per 1000 km², where it falls to the 6th position. This result may suggest a relative imbalance in the distribution of ATMs compared to branches, which could affect the convenience of residents' cash access. Sivasagar and Dibrugarh also demonstrate strong banking networks, with Sivasagar consistently ranking in the top four and Dibrugarh achieving high ranks, particularly in deposit account per capita and branch density per 1000 km². These rankings reflect the well-established banking presence in these districts, which likely contributes to higher levels of financial inclusion. Golaghat, while not leading, still performs well, securing ranks within the top 10 for deposit account per capita and branch density per 1000 km², but it ranks lower in ATM density per 1000 km² in the 21st position. This indicates that, while the district has a good number of bank accounts and branches relative to its population, the availability of ATMs may not be as widespread. Conversely, districts such as Goalpara, Dima Hasao, and West Karbi Anglong rank at the bottom, suggesting that these areas have less access to banking services and could be the focus of financial inclusion efforts to improve banking infrastructure and access.

Thus, it can be stated from above that the above rankings provide a comprehensive view of the financial inclusion across the districts of Assam. This highlights the clear divergence in banking infrastructure and access to financial services among the districts. Kamrup Metro, as a leading district, exemplifies the ideal scenario with a high density of branches and ATMs, both per km² and per capita, which aligns with its top rank in deposit accounts per capita. This indicates not only a strong physical banking presence but also a high level of financial engagement among its residents. Jorhat's consistently high rankings across multiple parameters suggest that it has a similarly robust banking infrastructure, ensuring that a majority of its population has reasonable access to financial services. This is indicative of a well-developed banking sector capable of meeting the needs of its residents. By contrast, districts such as Goalpara, Dima Hasao, and West Karbi Anglong, which rank lower in these categories, face significant challenges in terms of financial inclusion. The lower rankings in both physical banking infrastructure and deposit accounts per capita indicate the need for targeted interventions to enhance the availability and accessibility of financial services in these regions. The disparities revealed by the rankings highlight the importance of a targeted approach to financial development, ensuring that all regions, especially those currently underserved, can benefit from improved access to banking. This could involve the expansion of physical banking outlets, introduction of mobile banking units, or promotion of digital banking services to bridge the gap in areas with less banking infrastructure.

Table 1: District Wise Rank Based on Variables Used in the Estimation

District	Financial Inclusion	Geographic Penetration		Demographic Penetration	
	Deposit Account per capita	Branch Density per 1000 km2	ATM Density per 1000 km2	Branch Density per 1000 population	ATM Density per 1000 population
Baksa	27	26	28	29	30
Barpeta	12	10	11	22	22
Biswanath	25	23	20	17	14
Bongaigaon	19	7	3	16	7
Cachar	18	12	10	10	10
Charaideo	26	22	25	23	27
Chirang	20	27	27	25	21
Darrang	10	14	12	19	17
Dhemaji	7	29	24	26	6
Dhuburi	16	8	14	30	28
Dibrugarh	5	6	7	3	3
Dima Hasao	30	33	32	5	15
Goalpara	33	18	19	27	25
Golaghat	6	19	21	7	11
Hailakandi	22	20	13	24	12
Hojai	28	21	17	32	26
Jorhat	2	2	2	2	2
Kamrup	9	9	8	8	9
Kamrup Metro	1	1	1	1	1
Karbi Anglong	31	31	31	12	29
Karimganj	23	11	15	21	24
Kokrajhar	21	28	26	28	20
Lakhimpur	15	16	18	15	18
Majuli	24	30	29	14	19
Morigaon	8	13	23	20	31
Nagaon	3	4	6	13	16
Nalbari	11	3	5	9	13
Sivasagar	4	5	4	4	4
Sonitpur	14	17	9	11	5
South Salmara	29	25	30	33	33
Tinsukia	13	15	16	6	8
Udalguri	17	24	22	31	23
West Karbi Anglong	32	32	33	18	32

Source: Author's Analysis

Estimation Result of the Effects of the Geographic and Demographic Spread of Banking Services on Financial Inclusion within the State of Assam

The Breusch-Pagan-Godfrey test, as reported in Table 2, which is conducted on the models assessing the branch and ATM density functions, yields F-statistic values of 0.249723 (R^2= 0.016376) and 0.261155 (R^2 = 0.017112), respectively. Both F-values are found to be statistically significant at the 5% significance level (α = 0.05). The coefficients of the independent variables in both the models are also examined. For the first model, the coefficient values of Geographic Penetration (β = 0.018521, standard error = 0.203619) and Demographic Penetration (β = -0.256571, standard error = 0.378782) are both deemed insignificant at α = 0.05. Similarly, for the second model, the coefficient values of Geographic Penetration (β = 0.098377, standard error= 0.208115) and Demographic Penetration (β = -0.230753, standard error =0.308868) are also found to be insignificant. These test results indicate that heteroscedasticity is absent in either model. Thus, both the models exhibit homoscedasticity. Furthermore, assessments for multicollinearity and autocorrelation reveal that the models are free from these issues, as the mean VIF for the proxies of Geographic and Demographic Penetration is 1.36 for Mode1.1 and 2.26 for Model 1.2. The values for both models are significantly lower than the commonly employed cutoff of 10, suggesting that multicollinearity is not a concern for these models. Moreover, the Durbin-Watson statistic values for both models are approximately equal to 2. This result suggests that autocorrelation is not an issue because values close to 2 indicate no autocorrelation. Thus, the diagnostic tests performed on the two models assessing the branch and ATM density functions indicate that the models are well specified. The results of the tests for heteroscedasticity, multicollinearity, and autocorrelation indicate that the models are not affected by these common problems, which further validates the suitability of the estimation models.

Table 2: Diagnostic Result of Estimation Models

	Variable/Statistic	Model 1.1_Branch Density	Model 1.2_ATM Density
Heteroskedasticity Test: Breusch-Pagan-Godfrey	Constant	-0.507055	-0.720164
		(1.454077)	(1.395826)
	Geographic Penetration	0.018521	0.098377
		(0.203619)	(0.208115)
	Demographic Penetration	-0.256571	-0.230753
		(0.378782)	(0.308868)
	R^2	0.016376	0.017112
	F-statistic	0.249723*	0.261155*
Autocorrelation	Durbin-Watson	1.995617	2.074433
Multicollinearity	Mean VIF	1.36	2.26

*Note:** indicates significant at 0.05 level *Source*: Author's Analysis

Table 3 provides OLS estimation results and shows that the F-statistic values for Model 1.1 (Branch Density) and Model 1.2 (ATM Density) are 6.342657 and 8.141710, respectively, with R-squared values of 0.297182 and 0.351820, respectively. These values are significant at the 5% level, suggesting that the models have a good fit, and that the independent variables explain a reasonable proportion of the variance in financial inclusion.

In the first model, the coefficient associated with geographic penetration is 0.286249, accompanied by a standard error of 0.110303. Similarly, the coefficient pertaining to demographic penetration is 0.198252, with a standard error of 0.205192. The positive coefficients indicate that increases in both geographic and demographic penetration are associated with increases in financial inclusion. The impact of geographic penetration is significant, but the impact of demographic penetration is not significant at the 5% level (α=0.05). The second model reinforces the positive relationship between geographic and demographic penetration, and financial inclusion. The coefficient of geographic penetration in this model is also significant at the 5% level, further supporting the notion that geographic factors play a role in financial inclusion. These results provide evidence to accept H1, which states that the geographical penetration of banking services across districts in Assam has a significant relationship with the state's financial inclusion levels. However, the results lead to the rejection of H2, which posited that the demographic penetration of banking services across districts in Assam is significantly associated with the state's financial inclusion levels.

Table 3: OLS Estimation Result

Variable	Model 1.1_Branch Density		Model 1.2_ATM Density	
	Coefficient	Standard Error	Coefficient	Standard Error
Constant	-0.190285	0.787695	-0.291722	0.714475
Geographic Penetration	0.286249*	0.110303	0.239791*	0.106527
Demographic Penetration	0.198252	0.205192	0.111149	0.158098
R^2	0.297182		0.351820	
F-statistic	6.342657*		8.141710*	

Note: * indicates significant at 0.05 level *Source*: Author's Analysis

Thus, the findings from the OLS regression models indicate that both geographic and demographic penetrations are positively associated with financial inclusion in Assam. Further, the outcomes imply that any initiatives aimed at increasing financial inclusion in Assam should consider both geographic and demographic factors, with a focus on improving the ease of access to financial services and addressing demographic factors that may impact financial inclusion.

Conclusion

The study finds that while some districts in Assam enjoy a high level of banking access and financial inclusion, others lag behind, indicating the need for continued efforts to promote equitable financial access and foster economic growth and stability across all districts of the state during the study period 2021-22. Further, the estimation results show that geographic penetration, as measured by branch density per 1000 km² and ATM density per 1000 km², has had a notable impact on the progress of financial inclusivity at the state level. This finding indicates that the physical presence of banking services is a key contributor to financial accessibility. However, the study also reveals that demographic penetration, represented by branch density per 1000 population and ATM density per 1000 population, has a positive but not statistically significant impact. This implies that despite the availability of banking services, there remains an underserved segment of the population across the various districts in Assam. The conclusion that can be drawn from the research hypothesis on the accessibility of banking services across the districts of Assam in terms of their geographical and demographic penetration is that it has a significant effect on financial inclusion in the state. Thus, it can be inferred that the hypothesis of the study is accepted concerning the geographic penetration of banking services, but not about the demographic penetration of banking services.

Recommendation and Future Scope of Study

Based on the above insights, it is suggested that policymakers need to focus on enhancing demographic penetration to ensure that financial inclusion efforts reach all sections of the population. This could involve targeted strategies to address the specific needs of underserved communities, thereby promoting equitable access to financial services across the state.

The objective of this research is to concentrate exclusively on the issue of accessibility in the context of financial inclusion. Further studies may expand the scope by delving into other dimensions, namely availability and usage. Further research can be conducted by considering a wider perspective that encompasses all districts across the country, which would offer a complete understanding of financial inclusion, extending beyond just access. This holistic approach would enable a more comprehension of the various facets of financial inclusion.

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