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A STUDY ON FINANCIAL INCLUSION AND ECONOMIC DEVELOPMENT IN ODISHA

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Abstract

Financial Inclusion (FI) enables vulnerable populations, such as the elderly, disabled, and low-income individuals, to access social security schemes and government benefits easily. This ensures that they receive the support they need to meet their basic needs and lead dignified lives. FI is of utmost importance in Odisha, as it plays a vital role in promoting economic growth, reducing poverty, and ensuring the overall well-being of its residents. There exists much literature predominantly emphasizing the global implications of FI on economic development, but there is a noticeable gap in research specifically tailored to the Indian context. Furthermore, there is a scarcity of studies that have specifically examined the state of Odisha in relation to this topic. And so the study aims to provide an insight into the way FI helps the people of Odisha develop economically. The study's findings support the notion that FI entails endeavors to involve a significant portion of the population in the journey of economic advancement by providing diverse financial services. FI in Odisha can significantly contribute to poverty reduction, economic growth, and improved living standards for its residents. By providing access to formal financial services and fostering financial literacy, the state can empower its citizens and pave the way for a more inclusive and prosperous society.

Key words: Financial Inclusion, Economic Development, Outreach, Technology, Accessibility

Introduction

FI is a significant global development policy concern that garners considerable attention from policymakers. It generally refers to the accessibility and utilisation of formal financial products and services. However, the level of FI varies significantly, as evidenced by research studies (Ababio et al., 2020). FI plays a vital role in enabling individuals across various economic systems to acquire economic resources and secure their livelihoods. By enhancing the accessibility of financial infrastructure, FI empowers individuals economically. Unfortunately, in many developing regions, millions of people are excluded from the formal financial sector due to insufficient income (Findex data, 2021). In developing economies, there is a notable disparity in account ownership between rural and urban areas. Typically, account ownership rates are significantly lower in rural regions. Recent data from the Findex report in 2021 highlights that approximately half of the unbanked individuals are predominantly women from impoverished households residing in rural areas. This discrepancy in account access can have far-reaching consequences. Limited FI in rural areas restricts opportunities for economic growth and financial stability, hindering progress on poverty alleviation and sustainable development goals. Moreover, the gender disparity within this unbanked population underscores the need for targeted initiatives to empower women economically and ensure their access to financial services. FI endeavours to convert this unbanked population into a banking system by improving their access to formal financial services. The close relationship between FI (FI) and economic growth is noteworthy. King and Levine (1993) provided evidence of how FI plays a pivotal role in promoting job creation, mitigating vulnerability, and stimulating investment. Consequently, these factors lead to improved accessibility and affordability of financial products and services, ultimately contributing to the achievement of sustainable development goals within economies (World Bank, 2018). FI refers to the ongoing endeavour of providing equitable access to financial services for all individuals, especially those who belong to disadvantaged groups. This involves enabling a range of services, including deposits, withdrawals, savings, credit, and insurance, within a robustly regulated and institutional framework (Huang et al., 2021).

In this context, this study aims to investigate the role of FI in empowering the people of selected districts in Odisha economically. By examining various aspects of FI, the research seeks to understand how access to financial services can positively impact the economic empowerment of individuals and communities in the region. Odisha is a predominantly rural state with a large population living in remote and economically disadvantaged areas. And so, focusing on FI initiatives can lead to significant positive impacts on rural communities.

This article begins with an introductory overview, followed by an extensive literature review that examines the determinants of FI and its impact on the economic development of the people in selected districts of Odisha. Odisha is one of the states in India with a significant population living below the poverty line. FI can provide access to banking services, credit, and insurance to marginalised communities, empowering them to start businesses, invest in education, and lift themselves out of poverty. The following section delineates the study's objectives and offers an elaborate description of the framework that forms the basis of the proposed testing model. The research methodology is then presented, and the results are analyzed using structural equation modeling (SEM). In conclusion, the article thoroughly discusses the findings, acknowledges any limitations encountered during the study, and presents practical implications for managers to consider.

Review of Literatures

The concept of FI emerged towards the end of the twentieth century, acknowledging the need to connect development with various dimensions beyond just gross domestic product (Kabakova & Plaksenkov, 2018). As stated by Bongomin et al. (2018), FI serves as a fundamental tool that enables the economically disadvantaged to manage daily activities, navigate crises, and seize opportunities, ultimately contributing to individual well-being. Individuals can be considered financially included when they hold accounts with formal institutions, allowing them to engage in formal savings, borrowing, insurance contracts, and payment services (Zins & Weill, 2016). The G20 and World Bank have recognised the significance of increasing FI in developing countries as a means to alleviate poverty and foster greater economic inclusion, as emphasised by Rewilak (2017). These international bodies have taken steps to promote FI in developing nations. One of the key aspects of FI is its provision of affordable and accountable services to individuals who are typically excluded from the traditional banking system due to their low income. These vulnerable individuals can now access basic services within the formalised financial structure, as noted by Ozili (2018). FI plays a crucial role in ensuring that individuals have access to financial services, and outreach is a vital aspect of achieving this goal. It involves the efforts made by financial institutions to reach out and include consumers in their client base (Chakravarty & Pal, 2013). The financial institutions provide a wide array of financial products and services. The goal is to combat poverty and promote economic well-being. The origin of FI can be traced back to the early 2000s, as highlighted by Raza et al. (2019). Today, FI has gained popularity across countries, regardless of their economic development achievements. It offers accessibility and accountability, enabling individuals to meet their financial needs by accessing goods and services in non-financial sectors through sustainable practices.

In the literature, multiple definitions of FI can be found. However, Sarma (2012) provides a comprehensive definition that encompasses crucial aspects such as accessibility, availability, and usage of financial services by a significant portion of the population. One of the fundamental prerequisites for individuals to avail themselves of any financial service is the ease and availability of such services whenever needed (Shankar, 2013). This accessibility aspect encompasses factors like the proximity of bank branches, ATMs, required documentation, and other related elements (Paramasivan & Ganeshkumar, 2013). Access to banks is not only vital for sustaining and enhancing socio-economic status but also imperative for fulfilling various needs (Maity and Sahu, 2018). In a study by Bruhn and Love (2014), it was indicated that enhanced access to financial services resulted in improvements in income levels, increased investment in informal businesses, and a reduction in the unemployment rate. Mehrota and Yetman (2015) argued that when individuals, particularly those who are poor or disadvantaged, have access to proper financial services, they gain equal opportunities for investing in education and physical assets. This, in turn, leads to a reduction in income inequality and stimulates economic development. Sharma and Kukreja (2013) have projected the importance of technology to drive FI due to its potential for delivering financial services even to remote or rural areas. Chakravarty and Pal (2013) conducted research on various indicators of outreach that hold significance for achieving FI.

To summarize, these research studies underscore the positive impact of financial institutions, improved credit access, and appropriate financial services on economic growth and overall development. They emphasize the crucial role played by financial intermediaries in driving economic progress, reducing unemployment, encouraging investments, and promoting equal opportunities. The existing body of literature primarily concentrates on the global implications of FI on economic development, but there is a noticeable lack of research that specifically addresses the Indian context. Additionally, the state of Odisha has been subject to limited studies in this regard. As a result, there is an urgent requirement for further research to enhance the current knowledge. This study aims to bridge this research gap and provide valuable insights into the correlation between FI and the economic empowerment of individuals in the Indian context.

Through this investigation, the study endeavors to shed light on the potential advantages and challenges of FI in driving economic progress and uplifting the lives of people in India. By exploring this relationship, it seeks to contribute to a deeper understanding of the subject and uncover meaningful implications for policy and practice in the realm of FI.

Hypotheses development Accessibility and FI

Access to banking services fosters a better understanding of banking and its offerings. Especially in developing nations like India, banks serve as the foundation of FI (Iqbal and Sami, 2017; Goel and Sharma (2017)). In the context of a developing country, the availability of affordable banking services and innovative financial solutions can significantly contribute to achieving comprehensive FI (Shafi & Medabesh, 2012). According to Kelkar (2010), access to financial services not only promotes inclusion but also leads to economic development of individuals (Lal, 2017).

Outreach and FI

In the realm of FI, outreach pertains to the capacity of financial institution to provide vital guidance and assistance, attending to consumers' inquiries and integrating them into the sphere of financial services (Paramasivan & Ganeshkumar, 2013). Indian policymakers have consistently implemented numerous measures to establish and consolidate the financial framework. As a result, extensive research studies have been conducted involving policymakers, researchers, and various stakeholders. The introduction of ATMs has played a crucial role in granting bank customers greater autonomy and independence to access their accounts (Chatterjee, 2020). Garg and Agarwal (2014) arrived at the conclusion that insufficient outreach presents a major challenge in the lending models adopted by banks.

Technology and FI

The potential of digital financial technology to drive FI in developing markets has been widely recognized. Extensive research has already demonstrated the positive impact of advancing FI on economies. By incorporating various digital technologies, including Artificial Intelligence, we can create a potent solution that empowers individuals in these markets to access financial institutions and avail themselves of their essential services (Telukdarie, & Mungar, 2023; Kabakova, & Plaksenkov, 2018). In separate studies has identified Rastogi and Ragabiruntha (2018) have identified technology as a crucial and positively impactful factor in driving FI.

Economic development and FI

FI is recognized as a crucial responsibility for promoting economic growth, reducing poverty, and addressing income inequalities (Lal, 2017). It has been established as a significant tool for development, utilized by governments, and non-governmental organizations to overcome the challenges faced by underprivileged communities worldwide (Bhat and Mohan, 2020; Lal, 2018). FI encompasses efforts to integrate a significant portion of the population into economic advancement by providing them with various modes of financial services (Ababio et al., 2020). By providing access to financial services, FI empowers low-income households, enabling them to actively participate in economic development and seize entrepreneurial opportunities. This empowerment manifests through their ability to establish new businesses or diversify existing ones, fostering economic growth and progress within their communities (Mawa, 2008; Salameh, 2021). Offering basic financial services to disadvantaged individuals enables them to break free from the constraints of poverty (Beck et al., 2005), bridges the gap in income disparities and gives the opportunity of economic development. Drawing from both theoretical and empirical evidence, it is justifiable to put forward the following hypotheses.

H1: Accessibility has significant effect on FI H2: Outreach has significant effect on FI H3: **Technology has significant effect on FI**

H4: FI significantly affects economic development of people of Odisha

Research Methodology

The primary focus of this study is to comprehend the correlation between FI and economic development in Odisha, a region distinguished by its significant and diverse population. Due to the impracticality of including all individuals in the research, a strategic approach was employed. Four districts (Cuttack, Khordha, Kendrapara, Jagatsinghpur) with a literacy rate higher than 85% were carefully selected for inclusion in the study. These districts were chosen because of their higher literacy rates, ensuring the involvement of more educated demographic capable of comprehending the significance of the study. To gather primary data for the study, the researcher utilized a purposive sampling technique. The researcher devised a comprehensive questionnaire comprising 25 items, which were derived from previous research studies. The selection of these items was based on a meticulous review of pertinent literature in the field. Key constructs and variables were identified from existing empirical studies and presented to academic experts for their feedback and input to finalize the measurement scale. Prior to conducting the main survey, a pilot test involving 50 respondents was carried out. Feedback from the pilot test prompted minor adjustments in the survey instrument, ensuring its appropriateness and effectiveness for the subsequent survey. To further enhance the questionnaire's validity, a series of informal interviews were conducted with randomly selected individuals from the sample districts. These interviews aimed to gather feedback on imprecise language or unfamiliar terms present in the questionnaire and to seek suggestions for improvement. Respondents were encouraged to highlight any unclear or confusing aspects and provide their insights to enhance the questionnaire's readability and relevance. The researchers incorporated these valuable insights to refine the questionnaire. The adequacy of the study's sample size was evaluated based on guidance from prominent researchers in the field. Bollen (1989) emphasized the importance of having a sufficient number of cases per free parameter, while Bentler (1989) recommended a sample size of at least 5 times the number of free parameters. Moreover, Nunnally (1967) proposed a minimum of 10 observations for each item or parameter being tested. Considering these recommendations, the sample of size minimum of 200 was deemed appropriate for this study. To accommodate the large geographical area and the high number of required responses, it was decided to collect the data from 750 to 800 people with the help of volunteers. A total of 800 questionnaires were randomly distributed to individuals in the four selected districts to gather primary data on how the people of Odisha achieve economic development through FI. Out of the 800 distributed questionnaires, 760 were returned, and after thorough screening, 734 were considered valid for the final analysis. The sample size and response rate met the acceptable standards established by previous studies (Cochran, 1977), ensuring the research's robustness and reliability.

In this study, we aim to explore the proposed relationships by utilizing previously validated and empirically tested scales from existing research. A total of 25 measurement variables have been selected from the literature to be used in the investigation. Specifically, we have incorporated measurement items related to "accessibility" and "FI" from the studies conducted by Bongomin et al. (2016) and Nandru and Rentala (2019). Furthermore, the measurement scale items for "outreach" and "technology" have been adopted from the work of Vaid, Y. K., et.al. (2020).

Additionally, the measurement scale items pertaining to "economic development" have been sourced from the studies by Lakshami and Visalakashami (2013) and Lal (2019). To ensure the relevance and alignment of these measurement items with the main theme of our study, the researcher meticulously revised and rephrased each item. This process aimed to maintain the content validity of the scale items within the context of our investigation. For data collection, we employed a five-point scale, allowing participants to rate each of the 25 measurement items based on their level of agreement, ranging from "strongly agree" (5) to "strongly disagree" (1). This rating system facilitates the effective capture of respondents' perspectives and responses. By focusing on well-educated districts and employing a carefully developed questionnaire, the research seeks to shed light on the economic progress of the people in the region and contribute to a broader understanding of FI's impact on the economic development of the people of Odisha. Data-analysis procedures

This study utilized structural equation modeling (SEM) to explore the intricate relationships between variables and derive comprehensive results for analyzing theoretical models. SEM offers researchers the ability to simultaneously assess multiple complex hypotheses by examining the influence of various independent and dependent elements within a well-structured model (Anderson and Gerbing, 1988; Byrne, 2010). Through SEM, researchers can gain a deeper understanding of the interplay among these variables, providing valuable insights into the underlying mechanisms and contributing to a more robust analysis of the research framework.

Scale Reliability

The coefficient alpha method is utilized to assess the internal consistency of a scale to ascertain the extent to which the scale's items measure the same underlying constructs (Sekaran, 2010). In this study, the reliability of the scales is presumed to be satisfactory if the Cronbach's coefficient alpha value (Table 1) for each tool surpasses the recommended threshold of 0.60, which has been suggested by researchers (Hair et al., 2010).

Table No- 1: Reliability

Constructs	**N**	**Alpha**
Bank accessibility	5	0.980
Technology	5	0.913
Outreach	5	0.946
Financial Inclusion	5	0.884
Economic Development	5	0.963

Source: Authors' Calculation

Convergent validity

Validity is confirmed using three measures: Composite reliability (CR), Factor loadings, and Average Variance Explained (AVE). The calculated values for AVE and CR are presented in Table No. 2, and they surpass the recommended thresholds of 0.7 for CR, 0.5 for AVE, CR > AVE, and significant factor loadings (C.R. > 1.96) exceeding 0.50 (Hair, et al., 2010).

Table No- 2: Convergent validity

Variables	**Estimate**	**AVE**	**CR**
B5	0.964		

B4	0.963		
B3	0.964		
B2	0.976		
B1	0.888	0.90	0.97
T5	0.71		
T4	0.884		
T3	0.91		
T2	0.846		
T1	0.751	0.67	0.90
O5	0.677		
O4	0.913		
O3	0.901		
O2	0.937		
O1	0.981	0.79	0.90
F1	0.634		
F2	0.752		
F3	0.798		
F4	0.84		
F5	0.82	0.59	0.85
E5	0.932	0.83	0.95
E4	0.878		
E3	0.965		
E2	0.929		
E1	0.866		

Source: Authors' Calculation

Discriminant Validity

The analysis of the sample data confirms discriminant validity, as indicated in Table No. 3, where the square root of AVE (√AVE) is greater than the correlation coefficients between different constructs (Hair et al., 2011).

Table No- 3: Discriminant validity

	√AVE	Bank accessibility	Technolog y	Outreach	Financial Inclusion	Economic Development

Bank accessibility	0.94	1	0.103	0.057	0.178	0.047
Technology	0.81	0.103	1	0.085	0.139	0.09
Outreach	0.88	0.057	0.085	1	0.571	0.331
Financial Inclusion	0.76	0.178	0.139	0.571	1	0.445
Economic Development	0.91	0.047	0.09	0.331	0.445	1

Source: Authors' Calculation

Measurement Model

The goodness-of-fit indices for each latent construct were estimated as separate models, adhering to the guidelines proposed by Schreiber et al. (2006). The results indicate satisfactory model fit indices, as shown in Table-4.

Table No-4: Model fit

Fit Index	Value
CMIN/DF	2.608
GFI	.931
AGFI	.915
CFI	.979
RMSEA	.047
P-CLOSE	.886

Source: Authors' Calculation

Results of Hypothesis Testing

The developed hypotheses were tested using path analysis (Figure 1). Table No. 5 presents the regression weights and critical ratio, providing insight into the strength of the associations between variables. It was found that- Bank Accessibility ($p < 0.05$), Technology ($p < 0.05$) and Outreach ($p < 0.05$) have positive & significant impact on FI. Similarly, FI (***$p < 0.05$) exhibits a strong association with economic development. Thus, hypothesis H1, H2, H3 and H4 are accepted (Table no-5).

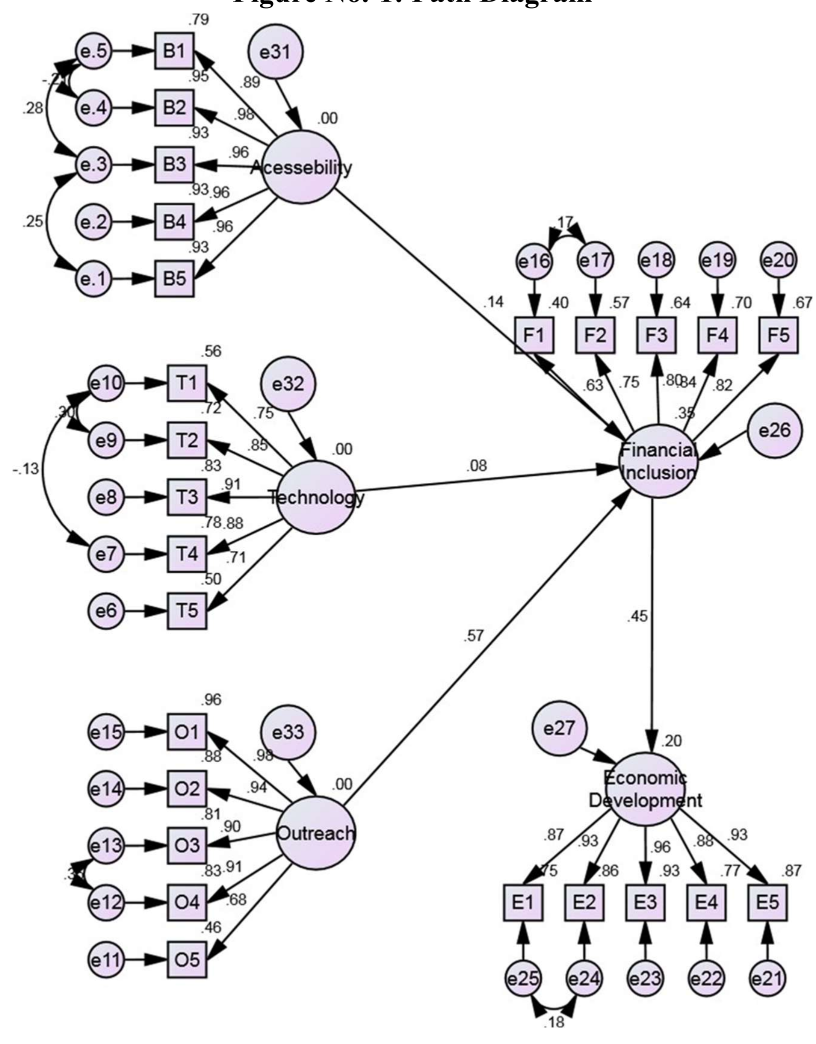
Table No- 5: Regression Weights

Variable		Variable	Estimate	S.E.	C.R.	P
Financial_Inclusion	<---	Acessebility	.102	.025	4.114	***
Financial_Inclusion	<---	Technology	.074	.032	2.354	.019
Financial_Inclusion	<---	Outreach	.546	.046	11.791	***
Economic_Development	<---	Financial_Inclusion	.662	.062	10.645	***
B5	<---	Bank_Acessebility	1.000			

B4	<---	Bank_Acessebility	.989	.015	67.818	***
B3	<---	Bank_Acessebility	.999	.013	79.028	***
B2	<---	Bank_Acessebility	1.007	.014	73.820	***
B1	<---	Bank_Acessebility	.962	.021	45.007	***
T5	<---	Technology	1.000			
T4	<---	Technology	1.259	.055	22.760	***
T3	<---	Technology	1.265	.054	23.391	***
T2	<---	Technology	1.195	.055	21.869	***
T1	<---	Technology	1.033	.054	19.046	***
O5	<---	Outreach	1.000			
O4	<---	Outreach	1.357	.060	22.711	***

Source: Authors' Calculation

Figure No.-1: Path Diagram



Findings and Discussion

The empirical results of the study have provided validation for the proposed theoretical model/framework. The impact of outreach, accessibility, and technology on FI is evident from the research findings. Among these factors, "Outreach" has the most significant influence on FI. It is found as a crucial determinant contributing to FI, aligning with previous studies by Chatterjee (2020), Garg and Agarwal (2014), Nandru and Rentala (2019), and Sarma (2008). These studies emphasize the importance of easy access, convenient installment payments, and swift loan application processes in encouraging participation in the formal banking system. Another essential dimension of FI is "Accessibility," which is supported by research conducted by Iqbal and Sami (2017), Goel and Sharma (2017), and Lal (2017). These studies suggest that the availability of affordable banking services and innovative financial solutions plays a significant role in achieving comprehensive FI. Similarly, "Technology" emerges as the third critical factor, corroborating the findings of studies conducted by Telukdarie and Mungar (2023), Kabakova and Plaksenkov (2018) and Rastogi and Ragabiruntha (2018). These studies highlight technology's crucial and positive impact in driving FI, recognizing its transformative potential in expanding access to financial services. The positive and significant impact of FI on economic development is well-established, and supported by various studies such as those conducted by Bhat and Mohan (2020), Lal (2018), and Ababio et al. (2020). These studies concur that FI encompasses efforts to integrate a majority of the population into the process of economic progress through diverse financial services. By recognizing and leveraging these factors, policymakers and financial institutions can enhance efforts to include more individuals in the formal financial system, ultimately contributing to economic growth and poverty reduction.

In the context of developing countries, ensuring satisfactory economic growth is a fundamental challenge that underpins various aspects of citizens' well-being. It encompasses the ability of individuals to meet their basic needs, access education and social opportunities, and enjoy the economic freedom necessary for survival and prosperity. As such, fostering sound economic health and its development becomes an important objective for any emerging economy. A key factor in achieving economic development is FI, which involves providing access to formal financial services for all segments of the population. FI is essential for both individuals and businesses in the economy. For individuals, having access to financial services means they can securely deposit their savings, earn fixed or regular interest income on their savings, and build a foundation for their financial future. It empowers them to plan for emergencies, invest in their education and skills, and participate in economic activities with confidence. One of the vital ways to promote FI is through the establishment of banking and financial institutions accessible to people across urban and rural areas. These institutions play a pivotal role in providing basic financial services to underserved and marginalized communities. Additionally, technological advancements have further revolutionized FI, allowing for the widespread use of digital financial services, mobile banking, and innovative fintech solutions. These technologies bridge geographical barriers, making it easier for people in remote areas to access financial services and participate in the formal financial system.

Conclusion

Economic development serves as the bedrock for progress across various societal dimensions, offering resources and opportunities to tackle pressing issues like poverty. In the context of any developing nation, ensuring substantial economic growth becomes pivotal in empowering citizens to meet their basic needs and achieve economic autonomy and prosperity. Consequently, striving for robust economic health and maintaining a stable growth rate are crucial for emerging economies, with FI representing the golden outcome of these efforts. Over the past two decades, research on FI has gained significant momentum. Technological advancements have revolutionized the way people access banking services, with electronic modes of banking becoming increasingly popular and supplementing traditional bank branches. The concept of outreach holds significant importance in FI, encompassing the measures and efforts undertaken by financial institutions to expand their client base. The more extensive these efforts, the higher the level of inclusion achieved. It is important to acknowledge that FI is an ongoing process, with continuous efforts being made to enhance the scope and effectiveness of such initiatives. The progress of FI is influenced by various factors, including infrastructure development, economic growth, and the level of awareness among the population. In essence, FI serves as a cornerstone of economic development in any developing country. By providing access to formal financial services for all citizens, it empowers individuals, supports businesses, and enables efficient government service delivery. Achieving FI requires collaborative efforts between governments, financial institutions, and other stakeholders to effectively promote it. This concerted approach contributes to sustained economic growth, poverty reduction, and overall prosperity within the country. As FI continues to advance, its impact on society is expected to be transformative, uplifting lives and paving the way for a more inclusive and prosperous future.

Managerial Implications

The issue of FI has gained considerable importance in India, particularly in the state of Odisha. The state government and various stakeholders have placed significant emphasis on extending financial services to all sections of society. Odisha's population is predominantly rural, and ensuring that financial services reach every individual is crucial for fostering inclusive growth and reducing poverty in the region. Nonetheless, achieving the desired success for FI and establishing a strong connection between economic development and FI present complex challenges. Ongoing research is diligently addressing the pivotal role of FI in driving the economic growth and prosperity of the people of Odisha. The state recognizes that enabling access to financial resources can pave the way for remarkable social transformation, elevating the standard of living for its citizens. Over the years, considerable efforts have been made to expand the banking infrastructure in the state, reaching even the remotest rural areas. The pursuit of FI in Odisha is a multi-dimensional challenge that holds the potential for transformative social change. By aligning education and FI efforts, the state can bolster its path towards inclusive growth, where every citizen can partake in and benefit from the state's economic progress. The ongoing research on this subject will play a critical role in shaping effective policies and interventions, ultimately leading to a more equitable and prosperous Odisha.

Scope for further research and Limitations

While this research offers valuable insights with theoretical and managerial implications, it is equally important to recognize and address its limitations. The research could be expanded to include the role of microfinance institutions in uplifting FI in the state. Microfinance institutions, often operating at the grassroots level, have been heralded for their efforts to expand FI by offering tailored financial products and services to underserved populations. They have been instrumental in providing microcredit and other financial services to individuals who may not have qualified for traditional banking services. Similarly, other determinants of FI like "usage" and "Financial literacy" could also be included in the research to help understand FI more clearly. The variables used in this study were based on relevant literature. Nonetheless, in future research, there is an opportunity to explore other variables with different dimensions to measure the suggested associations, thus enhancing the study's validity and expanding its scope. It is vital to exercise prudence when extrapolating the findings of this study to other states, as the analysis focused exclusively on individuals from Odisha. To address this limitation and validate the proposed relationships, conducting additional studies in diverse states while incorporating different constructs would be beneficial. This approach would allow for a more comprehensive understanding of the subject matter and broaden the applicability of the study's results.

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