Investigating the Effects of Financial Inclusion: A Systematic Review

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Abstract

Background: Financial inclusion is a key enabler of Sustainable Development Goals (SDGs) for 2030, and it is said that inclusion through savings mobilisation for investment and consumption can boost growth and contribute to the SDGs. However, further evidence is required to claim that financial inclusion can help overall economic growth and achieve larger development goals as envisioned by SGDs.

Objective: This research aims to comprehensively review existing literature on the effects of financial inclusion, emphasising its role in supporting economic growth and contributing to broader development goals.

Methods: A systematic literature review was conducted using the Scopus database, covering papers published up to 2023. A total of 264 papers were extracted, and a refined selection of 103 papers was made based on pre-defined inclusion and exclusion criteria. The chosen papers were subjected to further analysis.

Results: The results reveal that the number of studies on the effects of financial inclusion has significantly affected each variable. The findings also underscore the multifaceted impact of financial inclusion, emphasising its role in fostering SMEs, influencing macroeconomic indicators, bolstering the stability of banks, and positively affecting the population’s socioeconomic status.

Conclusions: This study concludes that financial inclusion is a key driver for achieving sustainable development goals, particularly for emerging economies. This research synthesis contributes to a deeper understanding of the diverse implications of financial inclusion.

Keywords: Financial inclusion, Systematic review, Citation analysis, Co-occurrence, PRISMA, Development

JEL Classification: G20, F63, I30
Introduction

Financial Inclusion (FI) refers to providing various financial services, such as deposits, loans, remittances, insurance, and so forth, to all individuals in the economy easily and at an affordable price (Iqbal & Sami, 2017; Sarma, 2015). It provides access to different financial services and offers opportunities to invest in productive activities, enabling people to acquire the goods and services needed for their consumption, such as food, clothing, housing, education, leisure activities, and others, ultimately achieving an acceptable standard of living (Sethi & Acharya, 2018). Financial Inclusion is considered as key strategy for economic development of a country (Singh et al., 2021; Okunlola et al., 2020; Sethi & Sethy, 2019; Raza et al., 2019; Sharma, 2016), reduction of poverty and income inequality (Khan et al., 2021; Koomson et al., 2020), and socioeconomic well-being (Serrao et al., 2021; Pasricha & Kaur, 2019) of the people.

Financial inclusion is also essential in achieving the Sustainable Development Goals (SDGs) of the United Nations Agenda 2030 (Jones et al., 2017). According to Ofori-Abebrese et al. (2020), financial inclusion directly contributes to achieving eight of the seventeen SDGs and indirectly to other SDGs. Similarly, Ferrata (2019) mentioned that at least nine of the seventeen SDGs can only be achieved with the help of financial inclusion. Since financial inclusion plays a significant role at the micro and macro levels, it has become a policy agenda of central banks and governments of many countries worldwide (Ratnawati, 2020).

The increased importance of financial inclusion has motivated many researchers and academicians to study the impact of financial inclusion in different sectors using various tools and techniques. Some studies measured the impact of financial inclusion on economic development (Rastogi et al., 2021; Van & Linh, 2019), income disparity (Ibrahim & Aliero, 2020; Le et al., 2019; Kim, 2016; Bae et al., 2012) and poverty (Nsiah et al., 2021; Koomson et al., 2020; Lal, 2018; Bruhn & Love, 2014). Other studies were carried out to measure the impact of financial inclusion on banks’ performance (Shihadeh & Liu, 2019; Al-Chahadah et al., 2020), the stability of the financial sector (Pham & Doan, 2020; Banna & Alam, 2021). Buchdadi et al. (2020) conducted a study to measure the impact of financial inclusion on SMEs’ performance. Likewise, Nandru and Rentala (2020) measured the impact of financial inclusion on the socioeconomic status of households.

Though various research has been conducted on the impact of financial inclusion, a comprehensive review of the impact of financial inclusion is necessary to understand the up-to-date summary of previous literature (Paul et al., 2021). In this context, this study presents a comprehensive review of studies on the impact of financial inclusion, sourced from the Scopus database until 2023. The research aims to identify the characteristics of relevant studies, analyse the significance of selected articles, explore keywords and their interrelationships, and pinpoint critical areas influenced by financial inclusion. This systematic review is critical to understanding previous literature and deepening the knowledge of the related topics. It also contributes to future research by exploring the gap in existing literature. The rest of this paper is structured as a methodology in section 2, the result and discussion in section 3, and the conclusion in section 4.

Research Methods

This study adopted a systematic literature review approach to identify the significant areas influenced by financial inclusion. The data for this study was obtained from Scopus on December 19, 2023. The search retrieved English-language conference papers and articles categorised within economics, business, and social sciences, focusing on the period up to 2023.s This study used several interchangeable terms for “effect” (impact, influence, importance, significance) and “inclusion” (financial involvement, participation, access). It employed a comprehensive search string ((impact OR effect OR influence OR

This study followed the PRISMA framework related to inclusion and exclusion criteria, presented in Figure 1. Two-stage screening, evaluating abstracts, and full-text content review were conducted. In the first screening, 152 articles not related to the impact of financial inclusion were excluded, leaving 112 articles. A subsequent full-text review removed nine irrelevant articles, resulting in a final list of 103 articles deemed directly pertinent to financial inclusion’s impact analysis.

Figure 1. PRISMA Framework

Data analysis encompassed various dimensions to achieve the study objectives. The general characteristics of the papers were scrutinised through yearly distribution, journal distribution, country-wise distribution, and an examination of data sources and statistical tools employed in the studies. Citation analysis gauged the significance of retrieved articles, while a keyword co-occurrence map illustrated relationships between major keywords, both constructed using VOS viewer software. Furthermore, to discern key impact areas influenced by financial inclusion, papers were categorised into four main groups and subdivided, followed by a percentage analysis of different categories.

Data Analysis and Discussions

As mentioned earlier, for the systematic literature review, 103 articles on the impact of financial inclusion were finally selected by the end of 2023. This section shows the overall analysis of the retrieved articles.

Descriptive Analysis

To know the characteristics of selected studies, we have conducted different analyses in this section, such as yearly distribution, journal distribution, country-wise distribution, data sources, and statistical tools used in the selected studies.
Figure 2 exhibits the yearly publication of papers related to the impact of financial inclusion until December 2023. It is observed that the publications associated with the impact of financial inclusion started in 2011, and very few studies have been conducted till 2018. However, the number of studies has increased significantly since 2018. This shows that the number of publications in this field has experienced a notable increase, rising from a single article in 2011 to a substantial 27 articles by 2023.

Table 1. Publications per Journal

<table>
<thead>
<tr>
<th>Journal</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Journal of Social Economics</td>
<td>7</td>
<td>6.80</td>
</tr>
<tr>
<td>Sustainability (Switzerland)</td>
<td>7</td>
<td>6.80</td>
</tr>
<tr>
<td>Borsa Istanbul Review</td>
<td>3</td>
<td>2.91</td>
</tr>
<tr>
<td>Cogent Economics and Finance</td>
<td>3</td>
<td>2.91</td>
</tr>
<tr>
<td>Finance Research Letters</td>
<td>3</td>
<td>2.91</td>
</tr>
<tr>
<td>Social Indicators Research</td>
<td>3</td>
<td>2.91</td>
</tr>
<tr>
<td>Academy of Accounting and Financial Studies Journal</td>
<td>2</td>
<td>1.94</td>
</tr>
<tr>
<td>Applied Economics</td>
<td>2</td>
<td>1.94</td>
</tr>
<tr>
<td>Economies</td>
<td>2</td>
<td>1.94</td>
</tr>
<tr>
<td>International Journal of Economics and Business Research</td>
<td>2</td>
<td>1.94</td>
</tr>
<tr>
<td>International Journal of Scientific and Technology Research</td>
<td>2</td>
<td>1.94</td>
</tr>
<tr>
<td>Iranian Economic Review</td>
<td>2</td>
<td>1.94</td>
</tr>
<tr>
<td>Journal of Asian Finance, Economics and Business</td>
<td>2</td>
<td>1.94</td>
</tr>
<tr>
<td>Journal of Risk and Financial Management</td>
<td>2</td>
<td>1.94</td>
</tr>
<tr>
<td>Other journals (having 1-1 article each)</td>
<td>61</td>
<td>59.22</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>100</td>
</tr>
</tbody>
</table>
The study was conducted by taking 103 articles published in different journals around the globe. All the papers are selected from the Scopus database. Out of the 103 publications examined, they are distributed among 75 journals. Table 1 provides a compilation of the leading journals in financial inclusion. The top 14 journals contributed 40.78% of the total articles studied. The International Journal of Social Economics and Sustainability (Switzerland) emerges as the most productive platform, publishing seven articles each. The significant representation of articles related to the impact of financial inclusion in these journals underscores its relevance to researchers in the marketplace.

**Country-Wise Distribution**

The distribution of articles across different countries reveals a significant presence of cross-country studies, constituting 36.89% of the total. China follows closely at 18.45% and India at 16.50%, emerging as major contributors with a collective share of 34.95%. This underscores the growing interest and importance of financial inclusion research in these populous nations. Ghana, Nigeria, and Vietnam individually contribute a modest number of articles, each at 3.88%. However, collectively, they represent a noteworthy regional presence. Several countries, including Indonesia, South Africa, and Bangladesh, contribute around 2-3%, showcasing a diverse geographic spread of research interests. Countries such as Colombia, Iraq, Jordan, Kosovo, Liberia, Malawi, Mexico, Nepal, Sri Lanka, and the United States contribute 0.97% or less. These contributions underscore a broad international engagement in financial inclusion research.

**Sources of Data and Data Analysis Tools Used**

The sources of data used are primary, secondary, and both. It was found that most of the studies (74%) were based on secondary data published by different organisations such as the World Bank, IMF, and others. Similarly, 24 per cent of studies are based on primary data collected by researchers, and only two per cent of studies are based on both primary and secondary data.

The analysis of statistical tools employed in the studies reveals a diverse and sophisticated methodological landscape within financial inclusion research. Structural Equation Modeling (SEM), utilised 16 times, signifies a prevalent choice for researchers seeking a comprehensive understanding of complex relationships among multiple variables simultaneously. Ordinary Least Square (OLS) regression, with 15 applications, represents a fundamental yet robust approach to estimating the relationships between dependent and independent variables. Fixed Effects Regression, also employed 15 times, indicates a recognition of the significance of accounting for individual-specific effects that remain constant over time, particularly crucial in the context of panel data analysis. The Generalized Method of Moments (GMM), with 14 applications, reflects a methodological flexibility that addresses endogeneity concerns effectively. Additionally, various regression models, such as Probit, Logit, and Quantile, among others, underscore the nuanced exploration of diverse research questions related to financial inclusion.

**Citation Analysis**

Citation analysis shows the number of citations a document, an author, a journal or others has received during a certain period. This paper includes citations by documents, citations by journals, and citations by country.

Regarding document-wise citations, an article by (Bruhn & Love, 2014) leads with 285 citations, focusing on the impact of access to finance on poverty. Following in this list is (Le et al., 2020), with 252 citations, exploring the role of financial inclusion on CO2 emissions in 31 Asian countries, and (Swamy, 2014), with 191 citations, which investigated the impact of financial inclusion programs on poor households. Other noteworthy documents with over 100 citations in this field include (Le et al., 2019) with 140 citations, (Koomson et al., 2020) with 129 citations, and (Kim, 2016) with 127 citations. These papers offer a comprehensive overview of financial inclusion and its impact on various areas, laying the foundation for subsequent research endeavours in financial inclusion.
Similarly, the citation analysis by the journal sheds light on the scholarly impact and concentration of financial inclusion research in different journals. The “Journal of Finance” stands out with one document but a remarkable 285 citations, emphasising this publication’s significant influence. “Finance Research Letters” follows closely with three documents and 259 citations, underscoring its consistent contribution to the field. “World Development” and “Social Indicators Research” each have one document, accumulating 191 and 151 citations, respectively, showcasing their impact on literature. Journals such as “Borsa Istanbul Review,” “International Journal of Social Economics,” and “Sustainability (Switzerland)” demonstrate consistent engagement with seven documents each, contributing 147, 109, and 83 citations, respectively. The diversity in sources reflects the interdisciplinary nature of financial inclusion research. This distribution highlights the varied platforms that researchers can utilise to disseminate their findings.

The country-wise citations of the documents with the numbers cited offer insights into the global impact of financial inclusion research presented in Table 2. Japan leads the list with three documents, gathering 409 citations highlighting its significant scholarly contribution. France and India follow closely with two and twenty documents, respectively, accumulating 392 and 352 citations each. The United States, with four documents, also garnered 352 citations, emphasising its influential role in the academic discourse. Despite having only one document, Singapore stands out with 252 citations, indicating the high impact of the research originating from this country. Vietnam, Ghana, and China are notable, contributing 251, 242, and 143 citations, respectively. The distribution reflects a global engagement in financial inclusion research, with countries such as Japan, France, India, and the United States prominently influencing the scholarly discourse on financial inclusion.

Table 2. Citations by Country

<table>
<thead>
<tr>
<th>SN</th>
<th>Country</th>
<th>No. of Documents</th>
<th>No. of Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Japan</td>
<td>3</td>
<td>409</td>
</tr>
<tr>
<td>2</td>
<td>France</td>
<td>2</td>
<td>392</td>
</tr>
<tr>
<td>3</td>
<td>India</td>
<td>20</td>
<td>352</td>
</tr>
<tr>
<td>4</td>
<td>United States</td>
<td>4</td>
<td>352</td>
</tr>
<tr>
<td>5</td>
<td>Singapore</td>
<td>1</td>
<td>252</td>
</tr>
<tr>
<td>6</td>
<td>Vietnam</td>
<td>11</td>
<td>251</td>
</tr>
<tr>
<td>7</td>
<td>Ghana</td>
<td>5</td>
<td>242</td>
</tr>
<tr>
<td>8</td>
<td>South Korea</td>
<td>2</td>
<td>164</td>
</tr>
<tr>
<td>9</td>
<td>Australia</td>
<td>3</td>
<td>157</td>
</tr>
<tr>
<td>10</td>
<td>China</td>
<td>20</td>
<td>143</td>
</tr>
<tr>
<td>11</td>
<td>United Kingdom</td>
<td>3</td>
<td>107</td>
</tr>
<tr>
<td>12</td>
<td>Nigeria</td>
<td>5</td>
<td>70</td>
</tr>
<tr>
<td>13</td>
<td>South Africa</td>
<td>7</td>
<td>58</td>
</tr>
</tbody>
</table>

**Keyword Co-occurrence**

Major keywords related to the impact of financial inclusion and their relationship have been analysed using keyword co-occurrence, as shown in Figure 3.
The keyword co-occurrence map of the main keywords used in the selected papers is presented in Figure 3, which was created using VOS viewer. For this purpose, we have used only those keywords which have occurred at least four times. There are which major occur a minimum of 4 times. The main keyword used is “financial inclusion”, which has occurred 69 times and it is co-occurred with 98 other different keywords used in the selected papers. The next main keywords are poverty (14 times), digital financial inclusion (14 times), financial services (12 times), finance (10 times), China (nine times) and economic development (nine times). These keywords co-occurred with other 39 keywords, 25 keywords, 42 keywords, 31 keywords, 28 keywords, and 25 keywords, respectively. This shows that most of the studies related to the impact of financial inclusion are conducted in China, focusing on the impact of financial services on poverty reduction and economic development.

In Figure 3, the circle size represents the keyword’s strength based on the total link. The higher the size, the higher the total link strength will be. Similarly, the four different colours in the keyword co-occurrence map represent four different clusters of keywords. The first cluster in red includes poverty, poverty alleviation, financial services, access to finance, financial literacy, and social inclusion in India and Ghana. The second cluster in green colour includes finance, digital financial inclusion, China, economic development, panel data, financial market, financial inclusions, and sustainable development. The third cluster in blue includes the financial system, income inequality, Asia, the developing world, and household income. The fourth cluster in yellow includes financial inclusion, economic growth, principal component analysis, and Sub-Saharan Africa.

The different clusters revealed by the keyword analysis indicate that studies in India and Ghana primarily focus on enhancing financial accessibility and literacy to mitigate poverty. In contrast, the research on China is more concentrated on digital financial inclusion and its role in sustainable and economic development. Studies about the developing world and Asia are oriented towards exploring the impact of financial inclusion on income equality. On the other hand, research on Sub-Saharan Africa is more focused on fostering economic growth through financial inclusion.
Impact of Financial Inclusion

This study focuses on a systematic literature review of the impact of financial inclusion. In this study, we have classified the impact of financial inclusion into four main categories: Impact on SMEs and entrepreneurship, Impact on macro-economic indicators, Impact on performance and stability of Banks, and Impact on the socioeconomic status of people, which is presented in Figure 4.

Figure 4. Impact of Financial Inclusion

Among the 103 papers selected for this study, more than half (50.49%) are related to the impact on macroeconomic indicators. This category includes topics such as the impact of financial inclusion on climate change, economic development, inclusive growth, income and consumption inequality, monetary policy, poverty reduction, SDGs (Sustainable Development Goals), and employment. The high frequency in this category is notable, with studies particularly concentrating on income and consumption inequality (11 papers) and poverty reduction (12 papers).

Another significant category, comprising 26.21% of the selected papers, is the impact on socioeconomic factors. This category encompasses various aspects, including socioeconomic welfare, agriculture-related impact, vulnerability, and empowerment, with frequencies 11, 5, 5, and 6, respectively. The prominence of socioeconomic impact underscores the comprehensive examination of how financial inclusion initiatives affect individuals’ overall well-being and status of individuals, including those of vulnerable groups.

The remaining two categories, each comprising 11.65% of the papers, focus on the impact on SMEs and entrepreneurship and the impact on the performance and stability of banks. Papers related to SMEs and entrepreneurship explore how financial inclusion promotes small and medium-sized enterprises and their performance and the role of financial inclusion in entrepreneurship development. Similarly, papers related to the impact on the performance and stability of banks concentrate on evaluating how financial inclusion measures influence the stability and overall functioning of banking institutions.

Discussions

This study is conducted to analyse the studies related to the impact of financial inclusion based on a systematic literature review. In this study, 103 articles extracted from the Scopus database are used for analysis. The number of studies related to the impact of financial inclusion has increased since 2018, reflecting the study’s increasing importance. Based on sources of data most of the studies are based
on secondary data conducted by different worldwide organisations such as the World Bank, IMF, and others. Most studies have used Structural Equation Modeling (SEM), Ordinary Least Square (OLS) regression, and fixed effects regression as statistical tools for data analysis. Considering the number of citations by documents, the paper by Bruhn (2014) entitled “The Real Impact of Improved Access to Finance: Evidence from Mexico” was the most important article during that period. This paper has 285 citations and was published in the Journal of Finance. The keywords analysis showed that many studies related to the impact of financial inclusion are done on poverty and economic development.

The researcher has divided all selected studies into four categories based on the impact of financial inclusion- SMEs and entrepreneurship, macro-economic indicators, performance and stability of Banks, and people’s socioeconomic status. Different studies measured the relationship between access to finance and the performance of small-medium enterprises (SMEs). These studies found a significant positive relationship between access to finance and SME performance (Zylfijaj & Nikoloski, 2021; Buchdadi et al., 2020) as access to finance helps to start a new business as well as continue the existing one (Fatoki, 2021), provides sufficient funding for investment in company’s fixed assets required for business growth (Ratnawati, 2020b), and directly increase the productivity of the firm (Giang et al., 2019). A study by Elizabeth et al. (2020) shows that access to finance positively influences youth entrepreneurship, while another study by Nguyen (2020) shows that only access to finance is insufficient for entrepreneurial intention. Furthermore, Zheng (2023) mentioned that digital financial inclusion increases the productivity of enterprises through enterprise innovation, and financial inclusion significantly affects the efficiency of women-owned enterprises (Rani & Sundaram, 2023).

Financial inclusion also significantly impacts macroeconomic indicators such as economic development, inclusive growth, poverty reduction, income inequality, monetary policy, employment, and climate change. The study conducted by (Ozili et al., 2023); (Ifediora et al., 2022), Rastogi et al. (2021), and Van & Linh (2019) found a significant impact of financial inclusion on economic development. Likewise, financial inclusion also helps promote inclusive growth as it directly impacts rural development (Lal, 2019) and promotes female inclusive growth (Cabeza-García et al., 2019), improving women’s quality of life. Other studies show the positive effect of financial inclusion on reducing income disparity (Pham & Luu, 2023; Ibrahim & Aliero, 2020; Le et al., 2019; Kim, 2016; Bae et al., 2012), consumption inequality (Luo & Li, 2022) and poverty (Hasan & Hassan AL-Azzawi, 2023; Tran et al., 2022; Nsiah et al., 2021; Koomson et al., 2020; Lal, 2018; Bruhn & Love, 2014). The study conducted by (Saraswati et al., 2020; Lapukeni, 2015) shows a significant relationship between financial inclusion and inflation as an indicator of monetary policy. Similarly, it is found that the flexibility, accessibility, and adequacy of microcredit positively impact employment generation. In contrast, microcredit costs have been found to hurt employment generation (Atiase et al., 2019). Financial inclusion harms climate change by increasing CO2 emissions (Le et al., 2020) with increased manufacturing and industrial activities (Arshad & Parveen, 2023).

Studies conducted on the impact of financial inclusion on the performance and stability of banks find a significant positive impact of financial inclusion on banks’ performance (Shihadeh & Liu, 2019; Al-Chahadah et al., 2020), stability of the financial sector (Nguyen & Du, 2022; Pham & Doan, 2020; Banna & Alam, 2021), and negative impact on the risk of banks (Shihadeh & Liu, 2019), and non-performing loans (Chen et al., 2018).

Financial inclusion has a significant positive impact on the socioeconomic status of households (Nandru & Rentala, 2020). Financial inclusion positively affects welfare (Ofori-Abebrese et al., 2020), health expenditure of households (I Koomson et al., 2021), schooling level of children (Mandira Sarma & Pais, 2015), social and economic empowerment of the people (Lal, 2021; Pasricha & Kaur, 2019), and well-being of the people as it significantly influences the financial security, education of children, living standards and health status of the people (Nandru et al., 2021). It is considered a catalyst for promoting household welfare (Mulbah et al., 2023). Similarly, financial inclusion also promotes sustainable
development (Tejasmayee et al., 2023; Gautam et al., 2022), reduces the vulnerability of households by improving mental health (Ajefu et al., 2020), and reduces the probability of food insecurity (Baborska et al., 2020) and provides food security in difficult situations (Arshad, 2022) by providing access to saving and credit.

**Conclusion**

This study analyses existing academic literature related to the impact of financial inclusion up to the end of 2023, responding to the increasing importance of financial inclusion around the globe. Under systematic review, the researcher classified the articles by year, journal-wise, country-wise, data source, and statistical tools applied in the studies. Likewise, the researcher did a citation analysis and categorised the papers into different categories based on the impact of financial inclusion. The study concludes that the substantial increase in the number of papers on the impact of financial inclusion, particularly after 2018, underscores this topic’s ongoing relevance and significance in the scholarly landscape. The distribution of articles across countries reflects a global perspective considering diverse regions and economic contexts. This international engagement enhances the richness and applicability of findings to various settings. Furthermore, the observed methodological diversity in the selected papers highlights the absence of a universal approach in employing statistical tools for research on the impact of financial inclusion. The variety of statistical methods used emphasises the need for researchers to tailor their methodology based on specific research questions and the available data.

Furthermore, this study concludes that the impact of financial inclusion is a multifaceted phenomenon, as evidenced by a comprehensive analysis of related studies. Financial inclusion contributes to different areas, including the Sustainable Development Goals (SDGs) by improving the quality of life of the poor, increasing the well-being of people, reducing poverty and inequality, financing SMEs and entrepreneurship, empowering women, and through infrastructure development as well as helps in achieving other developmental goals. This study provides a comprehensive understanding of the literature on the impact of financial inclusion and finds some gaps in the existing literature. It was found that most of the studies are based on secondary data published by different organisations, and there is a need to do more primary studies that provide individuals’ experience of using financial inclusion services and their effect on their quality of life.

**References**


