

## POSITION OF FINANCIAL INCLUSION IN REALISING SUSTAINABLE DEVELOPMENT GOALS (SDGS)

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### ABSTRACT

This paper investigates the association between financial inclusion and sustainable development in a global context. The findings show that high levels of financial inclusion (in terms of higher commercial bank branches per 100,000 adults) is significantly associated with high levels of sustainable development (in terms of higher electricity production from renewable sources, higher industry productivity, higher adult literacy rate and higher renewable electricity output). Financial inclusion is critical for the achievement of the Sustainable Development Goals (SDGs). Therefore, as there is a lack of extant studies linking financial inclusion to the SDGs, this present study used a panel regression model to examine the individual and combined effects of financial inclusion on the SDGs in selected countries between 2017 to 2022. As most extant studies have only examined specific SDGs individually, this present study is the first to examine the correlation between financial inclusion and finance-related Sustainable Development Goals (SDGs). A significant and positive correlation was also identified between financial inclusion and sustainable development in its entirety (finance-related SDG index). As financial inclusion may not directly affect all the SDGs, the uniqueness of this present study is that it examines seven finance-related aspects of SDGs, as outlined by the World Bank. The findings could encourage policymakers to increase efforts to raise the extent of financial inclusion to enhance the finance-related SDGs

**Key words :** Financial Inclusion, Sustainable Development Goals

### INTRODUCTION

Globally, many improvements can be observed in financial systems alongside technological advancements and greater innovation. However, despite these developments, as many as 1.7 billion people are still excluded from formal financial systems (World Bank, Citation2017). This may be attributed to their participation in the informal sector (Achugamonu et al., Citation2020), which prevents them from accessing affordable and adequate financial services. Financial exclusion may hinder sustainable development by limiting access to financial resources and preventing excluded communities from fully engaging in economic activities, thereby perpetuating poverty and inequality as well as severely impacting their social and environmental well-being. Furthermore, the challenges in achieving financial inclusion, such as high levels of poverty and inequality, can make it harder for individuals and communities to save, invest, and build financial resilience, thus making it more difficult to meet the Sustainable Development Goals (SGDs) (World Bank, Citation 2022). As financial systems around the globe remain far from inclusive, addressing financial inclusion to realise the SDGs has increased in prominence.

International organisations, such as the World Bank and the United Nations (UN), play an important role in pushing the financial inclusion agenda. For the World Bank, one of the core pillars of its sustainable development agenda is to ensure universal financial access. Therefore, financial inclusion and sustainable development have become two development objectives with far-reaching beneficial consequences for society and the environment. As a result, the two agendas have recently received a lot of attention in the international development community. Recent studies on financial inclusion and sustainable development indicate that the two notions have been examined as separate and mutually exclusive views, without the possibility of a connection between the two (Ozili, Citation 2022). Meanwhile, in the 2030 Sustainable Development Agenda of the UN, financial inclusion and the resultant expansion of financial facilities are prominently positioned as a veritable tool towards achieving seven of the 17 SDGs. These seven SDGs are, more specifically, eradicating poverty (SGD1), ending hunger and

promoting sustainable agriculture (SDG2), promoting health and well-being (SDG3), achieving gender equality and the economic empowerment of women (SDG5), promoting economic growth and jobs (SDG8), supporting industry, innovation, and infrastructure (SDG9), and reducing inequality (SDG10). As such, this present study was motivated to examine the correlation between financial inclusion and the finance-related SDGs.

Several research have analyzed that Faster, equitable and sustainable growth can be achieved with a well-functioning and inclusive financial system Levine (2005) and Honohan (2004).

Sustainable development goals (SDGs) are positioned prominently as a goal every country shall achieve by 2030. It is a call for action by all countries, be it rich, poor, or middle-income country. The very inclusive nature of these goals suggest that these goals aim at promoting growth while protecting the planet. These 17 goals are covering every aspect that are necessary for development of a country. UNCDF believes that financial inclusion can achieve these goals. In fact, financial inclusion is being reflected as a target in seven of the seventeen goals, including “SDG1 (eradicating poverty), SDG2 (ending hunger), SDG 3 (Health and well-being), SDG5 (Achieving gender equality), SDG 8 (promoting economic growth), SDG 9 (Supporting industry, innovation, and infrastructure), SDG 10 (Reducing inequality)”.

## REVIEW OF LITERATURE

Recent studies show that financial inclusion has become a top policy priority in many countries (Cull et al, 2021; Dabla-Norris et al, 2021; Vo et al, 2021; Ozili, 2021c). The priority given to financial inclusion by governments is hinged on substantial research that show evidence that financial inclusion promotes economic growth (Kim et al, 2018), greater financial stability (Neaime and Gaysset, 2018), poverty reduction (Koomson et al, 2020), reduction in income inequality (Huang and Zhang, 2020) and mitigating financial risk (Ozili, 2021b). Other studies identify some determinants of financial inclusion such as digital finance (Ozili, 2018), financial literacy (Grohmann et al, 2018), financial regulation (Anarfo and Abor, 2020) and economic policy uncertainty (Ozili, 2022).

Some studies examine financial inclusion along several dimensions of development. For instance, Bayar et al (2021) analyze how the use of primary energy is affected by financial sector development and access to finance. They analyse a sample of European Union transition countries from 1996 to 2017 using panel co-integration and causality tests that allow for cross-section dependence. They find that access to finance is negatively associated with primary energy usage. Dakhli et al (2021) examine the link between financial inclusion and ethnic development. They use a meso-level perspective, and analyse eleven ethnic groups in Nigeria and Senegal. They find a significant positive link between ethnic financial inclusion and local economic prosperity. Kandpal (2020) show that despite government intervention programmes for financial inclusion in India, some rural segments of the population are still unaware of financial institutions in their community. Rumbogo et al (2021) investigate the role of financial inclusion for inclusive development in Indonesia. They find that financial access is positively associated with the level of regional economic development in Indonesia. Zaidi et al (2021) analyze the linkages between financial inclusion, energy consumption and carbon emission using data of 23 OECD countries from 2004 to 2017. The results indicate a positive association between financial inclusion, energy consumption and carbon emission.

Cabeza-García et al (2019) investigate the effect of female financial inclusion on inclusive economic development. They argue that when women participate in the financial system, the inequality gap decreases which also increases both physical and social wellbeing thereby increasing women’s economic development. In their empirical analysis based on data from the Global Findex database and the World Bank DataBank, they find that greater financial inclusion of women, measured as access to a bank account and access to credit cards, has a positive effect on economic development. Huang et al (2021) investigate the impact of financial inclusion and trade openness on the economic development of 27 European Union (EU) nations from 1995 to 2015. They find that access, depth, efficiency, and the overall development of financial institutions have a significant positive impact on economic growth. They also find that the impact of financial inclusion on economic output is more

significant in low-income and new-EU member countries than in high-income and old-EU countries. Matekenya et al (2021) examine the effect of financial inclusion on human development in Sub-Saharan Africa (SSA). They argue that access to financial services and the use of financial services may encourage business start-ups, allow individuals to invest in health and education, manage risk and reduce income shock, and therefore, improve human development. They conduct a panel generalised method of moments regression analysis, and find that financial inclusion has a positive effect on human development. Cicchiello et al (2021) investigate the relationship between a financial inclusion index and development variables in 42 least developed countries in Asia and Africa from 2000 to 2019. They find that economic growth leads to financial inclusion. They also observe that unemployment and low literacy rates are among the factors contributing to low financial inclusion. They also observe that income inequality reduces financial inclusion rates and has a negative impact on development. Anarfo et al (2019) investigate the link between financial inclusion and financial sector development in Sub-Saharan Africa. They find a reverse causality between financial sector development and financial inclusion in Sub-Saharan Africa countries sample. Their findings suggest that financial inclusion is a driver of financial sector development and vice versa. Ade'Soyemi et al (2020) evaluate the impact of financial inclusion on sustainable development from 2001 to 2016. They use an error correction model (ECM) and a fully modified ordinary least square (FMOLS) analysis to determine the short-run relationship between the variables. The result of the analysis indicates that there is short-run causality running from commercial bank branches to human development index. Lenka (2021) investigates the linkages between financial inclusion and financial development in India from 1980 to 2017. The author used the principal component analysis methodology to construct a financial inclusion index and financial development index. The author finds that there is a unidirectional relationship between financial inclusion and financial development in India. The implication is that financial inclusion is an essential determinant of financial sector development in a developing country like India.

## **SDGs and financial Inclusion**

On September 25, 2015, the 2030 agenda for sustainable development was approved by the United Nations. The new set of goals formally came to be known as “The Sustainable Development Goals” (SDGs). The goals were endorsed by 193 member countries of the General Assembly and the goals appertain to all developed and developing nations. “Ban Ki-Moon, jotted down the new agenda is a promise by leaders to all people everywhere”. Although, SDGs do not directly target financial inclusion academic evidence suggest that financial inclusion spur the rate of achievement of these goals.

Increased level of financial inclusion contributes to economic growth of a country as it is characterized by increased savings, higher credits, and improved payment services. Typically, financial services are measured based on how many individuals use and own formal financial services. This exaggerates the growth capacity of an economy.

Measuring reduction in poverty through Gross domestic product will portray blur picture as it lacks inclusive growth (Sharma et al., 2011).

Financial inclusion can promote Inclusive growth thus, supporting Sustainable Development Goals. Inclusive growth is achieved when capital reaches every individual irrespective of geographical region, caste, gender (Rojas-Suarez and Gonzales, 2010; Karlan et al., 2014; Allen et al., 2016; Park and Mercado 2015). Suggest factors like income per capita, quality of institutions, good governance and the regulatory environment influence an economy's level of financial inclusion.

## **Financial inclusion and SDG 1**

Banks help poor people to manage their unexpected expenses and provide them with emerging investment opportunities. This facilitates the achievement of SGD1. Demirguc-kunt et al. 2015 opinions that only 43 per cent of adults in the weaker section of the economy have an account (Global Findex database). This evidence the income gap that reflects market inadequacies with information discrepancy and poor access to financial facilities. This force people to remain poor and create poverty trap (Beck et al., 2007; Galor and Zeira, 1993; Banerjee &

Newman 1994). According to world bank, millions of adults are residing below poverty line. CGAP (2016) reports that 17 per cent reduction have addressed in poverty owned to availability of banks in Indian rural area. Ashraf et al. (2010); Aportela (1999) believes that when individuals are given access to saving instruments, country's net savings increases that leads to an increase in consumption and investment.

Additionally, researchers believe that savings help individuals increase their consumption, spur investment in health and education and absorb financial shocks (Pande et al. 2012; Dupas & Robinson 2013a). In fact, digital payments help an individual borrow from far-flung relatives at the time of crises. This reduces the likelihood of individuals to fall into poverty. Greater fund deposits spur the mobilization process and results in more lending to businesses by banks (Honohan 2004). Beck et al. (2007) and Park & Mercado (2015) believes that a healthy financial system reduces income inequality that is highly related to poverty. Beck et al. (2007) correlates financial inclusion, poverty, and income inequality. As per their study financial development reduces absolute poverty. Additionally, Muralidharan et al. (2014) studied the effects of digitizing government transfer and found that this reduced middleman and increased payments received by beneficiaries.

This research explores affirmative connection between SDG1 and financial inclusion. Through a tested questionnaire, the researcher identifies this relation, specifically discussing target 1.4 of SDG1- "By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance". The research evidence that by being financially inclusive, individuals have witnessed increase in their income and consumption, and it has also led them to easily arrange cash at the time of crises from formal sector.

## **Financial Inclusion and SDG 5**

World bank (2015) reports that more than 50 per cent of Women worldwide are unemployed. They are not even looking for jobs. This reflects the income inequality between genders. Reports suggest that women are not financially inclusive and even if they are, they are not financially active (inactive users of financial services). This results in income loss for a country (Cuberes and Teignier, 2015). Demirguc-Kunt et al. (2013) adds that 7 per cent gender gap still exist. IFC (2011) reports that Women are likely to end up paying higher rate of interest on their loans than men. And manifold times due to absence of collateral bank repudiate the loan application.

Researchers like Ashraf et al. (2010) and Aker et al. (2016) believes that financially inclusive Women have better control over their finances and thus contribute more to the economy. (sdg5 to sdg8). World Bank (2012) report supports the conviction that households with equal or greater say of Women in financial matters have spending better arranged and in favor of Women. Additionally, savings account provides women with safe and formal platform to store their savings and build better credit history (Dupas and Robinson, 3013a; Slama, 2014; Karlan and Morduch, 2010). Malhotra et al. (2012) advocated that usage of mobile phones can improve market imperfections and augment consumption of financial facilities.

This increases the remote access of banking services to women who are working from their homes. This will also help women to be active users of financial services who are otherwise hesitant to go to formal banks. Banerjee et al. (2009) stated that women spending is likely to be more centered to necessities thus, avoiding wasteful household expenses.

The triumph of financial inclusion campaign highly depends on the determinants such as financial education, socio-economic, cultural, and environmental factors (Bhanot et al., 2012; Chakravarty and Pal, 2013). As Kumar (2005) specified women having low participation in the financial decisions of the family is one of the reasons for their financial exclusion and lack of job opportunities restrain them to become a productive member in an economy.

This research finds a positive correlation between SDG5 and financial inclusion. As the above evidence suggest that although women worldwide are increasing joining the formal financial system, but still significant population are deprived of this necessity. If they are brought into the main streams of the financial sector, the gender gap will

be reduced thus, increasing the growth rate of the economy. This research specifically identified target 5A, 5B, and 5C of SDG5.

5A- “Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws”

5B- “Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women”

5C- “Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels”

## **Financial inclusion and SDG 8**

Past decades have witnessed increase in income for majority of world’s population. However, income inequalities have also been at pace. Beck, T., Demirgüç- Kunt, A., & Levine, R. (2007) states that financial development ameliorate growth and reduce income inequality, Significant gap exists between access to health care, education, and finances. Evidence supports the fact that 70 per cent of the poorest lives in just ten countries: china, Bangladesh, Ethiopia, Congo, India, Tanzania, Nigeria, Indonesia, Pakistan, and Madagascar (World Bank and IMF, 2015).

Strong financial system helps mobilize savings that helps in financing productive ventures and innovations. On the contrary, financial exclusion reducing economic growth by reducing savings mobilization and increasing income gaps (Banerjee & Newman, 1994; World Bank, 2014; Greenwood & Jovanovic, 1990). Evidence also states that expansion of bank branches in rural India resulted in economic growth (Burgess & Pande, 2005). Studies by Bruhn & Love (2014); Andrianaivo & Kpodar (2011); and Townsend & Ueda (2003) explained in the study that financial inclusion contributes to economic development and welfare efficient utilization of financial resources. This research supports the findings of Townsend & Ueda (2003) and specifically supports target 8.

Sustainable development goal Eight targets economic growth and decent working environment for all. SDG 8 has twelve targets but to be more precise this paper mainly focuses on 8.3 and 8.10 target of SDG 8 which are as:

8.3 “Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all”

Schumpeter in his theory emphasized the role financial sector as fostering agent for accessibility of capital formation, innovation and investment in an economy with result in growth output, Goldsmith, McKinnon also supported the approach and highlighted that efficient financial system foster growth.

Few researchers Keating, Rasmussen & Rishi, 2010 point out that predatory practices of financial institution of leading under-resourced people have increased the inequalities and focusing on micro – entrepreneurialism as tool for poverty eradication (target 8.3) has not witnessed any success.

To increase the utilization of financial services ICT infrastructure development and integrated policy formation have shown the impact on variables. As adoption of internet banking and mobile banking have intensified the access to financial services and shown strong endogenous relation between sustainable economic growth through sustainable financial services. On the other hand, difference in Indian states in terms of financial inclusion level persist due to low literacy level, poor ICT infrastructure, low women participation in labour force and lack of proper identification proof are the major reason for unequal financial development among states have noticed (Ravi, 2019).

As Buğra (2014, p. 149) highlighted that in neoliberal world women face more severe problem due to unregulated labour market and weak social policy institutions (see Altan-Olcay, 2014; Kabeer, 2005).

The researchers such as Cumming and finch (2001) have signified that encouraging entrepreneur to take risk and increase investment by financial accessibility will augment growth.

Swamy (2010); Mohan (2006); Arora (2010); Chattopadhyay (2011); Gupte et al. (2012); Dixit and Ghosh (2011); in their peace of study proven that easy accessibility of financial services at affordable cost to weak and desired group has seen a positive relation between financial inclusion and economic growth.

Bakar & Sulong, 2018 suggested that multidimensional variable will be more effective to observe growth via financial inclusion and economic sustainability through sturdy financial system.

(Allen et al., 2018; Ruiz, 2018; World Bank, 2017; Onaolapo, 2015; Schumpeter, 1934 presented the contribution of financial institution for increasing return on investment and dissemination of financial initiatives in an economy. The world bank (2017) in their research stated that essay access to finance for both individual and firm enabling them to make financial payments avail credit and insurance facilities and augment saving in sustainable manner.

To increase the utilization of financial services ICT infrastructure development and integrated policy formation have shown the impact on variables (Pradhan et al.2021). As adoption of internet banking and mobile banking have intensified the access to financial services and shown strong endogenous relation between sustainable economic growth through sustainable financial services. On the other hand, difference in Indian states in terms of financial inclusion level persist due to low literacy level, poor ICT infrastructure, low women participation in labour force and lack of proper identification proof are the major reason for unequal financial development among states have noticed (Ravi, 2019).

### **Financial inclusion and SDG 10**

A large literature finds that financial development produces faster average growth (Levine, 1997, 2005). Other researchers such as Forbes (2005); Lundberg and Squire (2003) worked and finds out that growth is negatively affected by income inequality. To reduce income inequality few researchers have focused on redistributive policies with positive repercussion for economic growth ((Demirgüç-Kunt and Levine, 2007). Adding to this Aghion et al. (1999) mentioned in theory study that redistribution of income from rich to poor may reduce the inequality but at the same time adverse incentive approach may hinder growth in long run which will defeat the purpose in long run. In solution to this (Demirgüç- Kunt and Levine, 2007) emphasized on financial sector reforms which ameliorate the economic growth and reduce income equalities eliminating the potential incentive problems related to redistributed policies.

A model developed by Greenwood and Jovanovic (1990) showed a nonlinear nexus between economic growth, Financial Development, and Income disparity. At different stages of economic development efficient capital allocation effective aggregate growth can be seen because of financial development but at initial stages rich section of the society access and benefited from the financial market but on later stages the accessibility increases and large section of the society get benefitted.

Some of the problems associated with lack of access to credit has discussed in the study of Jacoby and Skoufias (1997) where he highlighted that poor households stop their children schooling at the time of transitory shocks like that Dehejia and Gatti (2003) showcased that higher child labour rates in underdeveloped financial system economies (Beegle et al., 2003).

Alesina and Perotti (2008) sampled 71 countries from 1960 to 1985 and find positive correlation between inequality and social discontent that ultimately causes instability. Inequality further slows economic growth. Financial services support poor to become self-dependent and thus, reduces inequality. In fact, financial development increases income of the poor faster than average per capita GDP which leads to income equality (Beck et al., 2007). Jack and suri (2014) supports mobile banking and conclude that it helps in money transfer during crises thus, reducing the chances of poor becoming poorer. Additionally, Shams and Kaufmann (2016) believes that money transfer through mobile is easier to deliver and monitor.

This research thus, proves that financial inclusion helps achieve SDG10 by stimulating the rate of growth and reducing income disparities among individuals, within country and among countries.

Here, targets 10.2 and 10.3 are specifically focused upon.

10.1 “By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status”.

10.2 “Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard”

The literature discussed above creates a strong base that financial inclusion supports the success of Sustainable Development. In fact, online financial services help reduce the income and gender inequality. Digitalization of financial services helps in wider coverage and ease of use of these services.

## CONCLUSION

The findings were credible as the variables of interest were consistent throughout the robustness analyses. Future studies may extend this present study in many ways. For instance, the role of financial inclusion in sustainable development could be examined by embedding institutional qualities from political, economic, and legal perspectives. Furthermore, other mediating factors; such as financial literacy and infrastructure development; are keys in deciding the path towards sustainable development. This is because, to achieve the interlinked goals, access to finance is simply the beginning. The more enhanced phase will be society’s reaction and behaviour towards the use of the financial tools to achieve the SDGs. Lastly, other types of financial services should be taken into consideration as different types of financial services could have different effects on the studied countries. The problems pertaining to financial inclusion and the related literature is discussed in depth. The paper ends with an analysis of the relationship between financial inclusion and the Sustainable Development Goals in particular.

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