



Nexus Between Women Empowerment and Financial Inclusion: Empirical Evidence from Developing Countries

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ABSTRACT

Women's freedom to make social, political and economic choices for their wellbeing regarded as women empowerment. Women have fewer opportunities to participate in social, political, and economic spheres in general, and developing economies in particular. Reducing gender inequality is the 5th United Nations Sustainable Development Goal (SDG). The study focuses on the ways to empower women through financial inclusion. Panel data for 33 developing countries was collected for the years 2004-2020. For the women empowerment, Gender inequality index (GII) was used as dependent variable. Financial inclusion (FI) has three main indicators i.e., number of commercial banks branches (BCB), number of ATMs (ATM) and outstanding loans (LOANS) which are used in the study. As control variables this study employed labor force participation rate female (LFPRF) and Gross domestic product per capita (GDPPC). The model includes cross sectional dependence, heteroskedasticity and autocorrelation. Hence, the Driscoll and Kraay (DK) technique was used. Financial inclusion has a visible impact on women empowerment as adequately determined by this study. The study recommended the governments and policy makers to create favorable environment for women which empower them and advance financial inclusion for equitable and sustainable development.

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1. Introduction

Women empowerment, encompassing the ability to independently make choices across social, political, and economic dimensions, is a pivotal aspect of global development. Despite progress, women in both general and developing economies face persistent disparities in their participation. The United Nations Sustainable Development Goal 5 underscores the imperative to reduce gender inequality. This study focuses on financial inclusion as a necessary tool to empower women in developing economies by examining it as a potential catalyst for enhancing women's agency and well-being (Chaudhary & Kumari, 2022; Roy, Banik, & Xiaoling, 2020). Women are often undereducated, underrepresented, and frequently relegated to low-paying and unskilled professions across all sectors in developing nations (Moswete & Lacey, 2015). Households led by women are among the most impoverished of all poor households in several developing countries (Mahwish, Bashir, Abbassi, & Khan, 2024). Significant hurdles hamper women from acquiring economic resources such as property, skills and credit. This lack of financial independence increases the vulnerability of females in case of separation from male working partner due to death or divorce. To achieve women empowerment and sustainable development goals, financial inclusion plays a significant role. It not only reduces poverty and hunger but also improves health, high quality education, gender equality, promotes employment opportunities equally for men and women, and foster economic development. By enabling women to participate in economic activities, financial inclusion can expedite a nation's economic and social development. Women

can start their own businesses, promote their local crafts and participate in entrepreneurial activities by using their own finances.

On one hand financial industry has seen substantial growth in terms of its operations, revenue, and efficiency, while on the other hand financial institutions and banks lag in provision of services to a huge segment of society, particularly to the poor. A large section of the populace lives in poverty, which is a contributing factor to these concerns (Bermeo, 2019). Financial inclusion could raise the standard of living for those who are low-income or otherwise deprived, yet the motivations and methods vary from country to country, therefore coordinated efforts are required (Assaf, 2024). To achieve successful and efficient financial inclusion, it is imperative to identify strategies for leveraging the unrealized potential of people and companies that are either not fully served by the current offerings or are not currently included in the formal financial system. To fully utilize this potential, there is a need to discover effective methods. This study is in pursuit of identification of avenues of financial inclusion which can help in empowering women in the developing countries. The study explores how financial elements support women economic agency, decision-making skills, and general well-being by examining the effects of increasing and improved access to financial services. The overarching objective of this study is to analyze the impact of financial inclusion on women empowerment in developing economies. Further to identify the barriers in financial inclusion of the women and finally to explore the strategies to overcome the challenges faced by women. Financial inclusion plays a significant role in empowering women and contributes actively to achieve sustainable development goals (SDG's) (George & Thomachan, 2018; Gumbo, Dube, & Ridwan, 2021; Nassani, Aldakhil, Abro, Islam, & Zaman, 2019). By expanding financial service accessibility to marginalized communities, policy makers, advocacy organizations, business entities and development organizations can effectively address longstanding inequalities, foster social development, and contribute to economic growth of developing economies. In nutshell this study pursues to identify the ways in which women can be empowered through financial inclusion by enhancing their economic agency, decision making tendencies and overall well-being.

2. Literature Review

2.1. Financial Inclusion

Financial inclusion means access and availability of financial goods and services at reasonable and low prices to the poor segment of society (Oshora, Tangl, Nathan, Maria, Nguse, & Desalegn, 2022). The provision and access of financial services and products available to individuals in their daily life refers to financial inclusion. These include several but are not limited to credit facilities, insurance, bank account, saving products and payment services (World Bank, 2021). The early part of this century saw a rise in the use of the term "financial inclusion," which came up as a direct consequence of research that showed a correlation between financial inclusion and low income. That is, low-income and disadvantaged people are unable to pay for the sophisticated financial services offered by the banking sector, subsequently, they are excluded from the provision of financial services. Despite challenges, financial inclusion continues to be a common priority for many central banks among developing countries (Sharma & Changkakati, 2022). Existing literature underscores significance of women empowerment for overall societal development. Socio-economic development of a country is highly dependent on the financial inclusion of females. The prime role of financial inclusion is to create a bridge so that individuals can have access to the commercial banking system to have substantial benefits. The availability of fiscal resources helps in generating equivalent chances. It permits the people who are not included economically and socially to participate well in the economy and guard themselves against fiscal blows. Economic growth and development are the major concerns for any government. The role of state is generally to establish a conducive environment for inclusive growth and economic development by promoting the economic and financial activities (F. Nawaz, Aysan, Kayani, & Nasserredine, 2024; M. Nawaz, Aslam, & Tariq, 2021; Siddik, 2017; Urooj, Bhatti, Ahmad, & Nawaz, 2023; Vu, Paramaiah, Tufail, Nawaz, Xuyen, & Huy, 2023).

Assaf (2024) investigated the impact of social entrepreneurship on women's financial empowerment in Saudi Arabia, focusing on the effectiveness of such initiatives in enhancing financial inclusion and empowerment opportunities for women. The study utilized Social Entrepreneurship Theory, Women's Empowerment Framework, and Financial Inclusion Models to explore the relationships among collaboration, creativity, diversity, scalability of initiatives, and financial inclusion strategies, and their outcomes on women's restructuring. Data was gathered from 210 female respondents in KSA via a structured survey covering demographics, attitudes

towards social entrepreneurship, and experiences with financial inclusion. The study revealed strong connections between collective action, creativity, diversity, scalability, financial inclusion strategies, and women's empowerment. The findings provided practical insights for policymakers and practitioners to better direct investments in social entrepreneurship, aiming to enhance women's access to financial resources, enable economic empowerment, and promote sustainable development in KSA. The research contributed empirically to the literature by demonstrating how social entrepreneurial practices can effectively promote gender equality, women's empowerment, and financial inclusion in KSA.

Mahwish et al. (2024) explained the role of financial inclusion and governance on women empowerment. The objective of the study was to find out the impact of financial inclusion and governance on women empowerment in 30 developing economies for the period of 2004-2020. Study found that women who have access to domestic loans are more likely to engage in business activities and consider starting their own businesses. Governance also helps women to involve in business activities. Authors concluded that increase in financial activities and government policies help women to empower themselves. Study also suggested policy makers to do planned and designed interventions to promote women empowerment. Furthermore, Chaudhary and Kumari (2022) investigated how financial inclusion affects women empowerment in Ranchi District. The study identified that women played a vital role in shaping not only the households but also for society. In the modern world, attaining sustainable economic development required the involvement of both men and women. The study aimed to find out the history of women's participation in banking and financial activities. The study examined how women's empowerment in society was influenced by financial inclusion. The findings showed that women exhibited a lot of interest in banking and financial services. Financial inclusion has small but significant impact on lives of women. Women empowerment continues to be hampered by issues including illiteracy, reliance, and lack of awareness.

In addition to this, Sharma and Changkakati (2022) investigated that financial inclusion is helpful for achieving sustainable development goals. It helps not only poor segment of society but also promote economic growth and stability of an economy. The study made an index of components of financial inclusion using principal component analysis. Feasible generalized least square method was employed for 153 economies over a three-year period (2011, 2014, and 2017). Key outcomes of the study revealed that students were able to get a good education due to different segments of financial inclusion. It also helped women to start their own businesses. Similarly, Nguese et. al., (2022) elaborated in their study which focused on Ethiopian small and medium sized (SMEs) that economic development of a country is directly related with the financial inclusion. It further explored the function of public policies and laws to empower women with the moderating effect of financial inclusion. Data from both primary and secondary sources were gathered. Findings showed that government laws and regulations have noticeably impacted women economic empowerment and financial inclusion also affected economic empowerment of women.

Moreover, Alaghbari, Othman, and Noor (2021) explored the difficulties and challenges that Islamic financial inclusion encountered through Islamic financial institutions (such as banks, microfinance, and insurance etc.) in promoting women economic empowerment in Yemen. The objective was to increase women's involvement in economic development. The study used qualitative methodology and conducted extensive interviews. The study also recommended policy makers to introduce such practice programs which enable women to play more active role in society. Another interesting study by Asongu, Nnanna, and Acha-Anyi (2020) posited that financial services can alleviate gender income disparities. The Sub-Saharan African countries were analyzed between 2004 to 2014. Generalized Methods of Moments and Fixed Effects method were employed. Conclusion of study revealed that financial inclusion negatively affected the Palma ratio of female labor force participation rate. Additionally, financial access exerted a positive influence on reducing the Gini Coefficient. In addition to this, Badullahewage (2019) also conducted a study that shed light on the lack of empowerment among women in developing nations. The management of their household finances was extremely difficult for these women who lived in these nations. Despite making major contributions to numerous industries around the world, they received disproportionately little compensation and recognition. As compared to males, women in developing economies are more deprived. Concept of women empowerment is different in each country depending upon the local dynamics. However, study found that women

empowerment is very important for economic progress. Similarly, Hendriks (2019) identified the role of Bill and Melinda Gates Foundation in empowering women with the help of financial inclusion. The study discussed the contribution of foundation towards mitigating the gender disparity faced by women and girls. The study concluded that women could achieve their economic empowerment with the increasing access to financial services. Financial inclusion has the capacity to increase economic opportunities for women, to start their own small businesses, and to promote economic development.

George and Thomachan (2018) explored the bond between financial inclusion and women empowerment. Financial inclusion means the provision of banking services and products such as insurance, savings accounts, bank accounts etc. at low cost to poor and disadvantaged groups of people. Data was collected from different primary and secondary sources. Information from 100 respondents was collected using random sampling technique. The study found that financial inclusion has a powerful impact on women social and economic empowerment. Similarly, Roy, Banik, and Xiaoling (2020) elaborated that for inclusive and sustainable growth women empowerment is a crucial step. The study examined the relationship between financial inclusion and women empowerment using panel generalized methods of moments. Data collected from 50 developing economies from 2005-2017. The study found that financial inclusion helps the women to gain gender equality and social welfare. Moreover, Priti (2014) has explained the role of financial inclusion in making women empowered in India. The author focused on the availability of funds and financial services to women for the development of society and country. Financial inclusion will provide them with access to funds and the opportunity to start their small businesses. They can get employment and support their families. It is one of SDGs of United Nations to make the women empower and remove gender inequality by providing them finance. India has 48.5% females out of the total population. By making them empowered sustainable economic development can be achieved. Likewise, Suresh and Dutta (2018) elaborated the concept that financial inclusion is the corner stone in economic development over the past ten years. Women have been excluded from this shift in policy approach, and their inclusion remains to the extent of entitlement not empowerment. The problems that women and other socially excluded groups faced, remain same. In India, financial inclusion has been driven by banks, and this strategy hasn't aided women's economic advancement. Women still receive very few business loans, and most of the modifications to the law are merely aesthetic.

According to the latest data from the World Bank Global Index (2021), although account ownership has generally increased, gender disparities have remained constant over the past six years and have not decreased. Despite developments in financial inclusion, women continue to exhibit lower account ownership rates compared to males. The gender disparity in developing nations, as shown by the Global Findex Database 2021, is at an average of 6 percentage points. While there has been a rise in the total number of women with bank accounts, it does not necessarily indicate that women are making significant advancements. Indeed, in several emerging economies like Argentina, the Philippines, and Indonesia, women now have a higher probability of possessing a bank account compared to males. Nevertheless, the disparity in account ownership between genders has deteriorated in some nations, such as Pakistan, Bangladesh, and Nigeria, within the last three years (United Nations, 2022). The financial inclusion of women will also give them a respectable position in the today's society which has a high value for the wealth and assets. Moreover, the vulnerability of being a female can also be minimized by pursuing the financial inclusion of women, as women can reduce their risks by having an insurance coverage. The economic and social development of developing nations can be expedited by enabling women to engage in growth opportunities (Bermeo, 2019; Habib Sultan & Yahaya, 2018; Swamy, 2014). Working women give back 90% of their income to their families, which improves their children's health and educational opportunities (Bello, Abubakar, Adamu, & Auwal, 2022; Siddik, 2017). Consequently, a cycle establishes that reduces poverty in a sustainable manner. The current research addresses a gap in existing literature by studying the interplay among financial inclusion and empowerment in developing economies. It explores crucial themes such as the role of financial services (number of commercial bank branches, number of ATMs, amount of loans) in promoting women economic independence and mitigating gender disparities, utilizing secondary data that has been overlooked in prior studies.

3. Data Collection and Techniques

The aim of the current study is to find out the effect of financial inclusion to empower women in developing countries. For this purpose, the study used panel data for 33 developing

economies. The data has been retrieved for the years 2004-2020 from World Development Indicators (World Bank, 2021), United Nations Development Program (UNDP) 2022 and Financial Access Survey IMF 2022. ¹The following economies are considered because data is readily available.

3.1. Model Estimation

The current study specifies the following model:

$$GII_{it} = \beta_0 + \beta_1 BCB_{it} + \beta_2 ATMS_{it} + \beta_3 LOANS_{it} + \beta_4 GDPPC_{it} + \beta_5 LFPRF_{it} + \mu_{it} \quad (1)$$

Where GII= Gender inequality index, BCB= Branches of commercial bank, ATMs= Total number of ATMs, LOANS= Outstanding loans from commercial banks, LFPRF= Labor force participation rate female, GDPPC= Gross domestic product per capita, μ =error term. The variables are described in table 3.1.

Table 1: Description of Variables

| Variables | Measurement of Variables | Expected Relationships | Data Source |
|-----------|--------------------------------------------------------------------|------------------------|-------------|
| GII | Gender inequality index | Dependent variable | UNDP |
| BCB | Number of commercial bank branches per 100,000 Adults | Negative | FAS_IMF |
| ATMS | Number of ATMs per 1,000 km ² | Negative | FAS_IMF |
| LOANS | Outstanding loans from commercial banks (% of GDP) | Negative | FAS_IMF |
| GDPPC | Gross domestic product per capita (constant 2015 US\$) | Negative | WDI |
| LFPRF | Labor force participation rate female (% of population ages 15-64) | Negative | WDI |

Source: Authors' compilations

In the present study, the dependent variable is defined as the Gender Inequality Index (GII), which served as a proxy for women empowerment. Gender inequality index measures the potential inequality between men and women in three areas: reproductive health, political and educational empowerment, and labor force participation (United Nations, 2022). Data on GII taken from the dataset of the United Nations Development Program (UNDP). The GII indexed from 0 to 1. The greater the index, the greater the gender gaps, which reflects a poorer level of women empowerment (United Nations, 2022). The study converts the scale of GII from 0-1 to 0-100 for empirical analysis (Roy, Banik, & Xiaoling, 2020). Further, the information on financial inclusion gathered from The Financial Access Survey (FAS) dataset of the International Monetary Fund (IMF). Nine metrics from the IMF FAS survey are explicitly recognized as financial inclusion indicators by the G20 Financial Inclusion metrics. The study uses three significant financial inclusion indicators as their key explanatory variables of interest. The first proxy for FI is commercial banks branches. This is used because, based on the number of bank branches, we may determine the extent to which financial institutions are prevalent throughout each country. The density of bank branches directly correlates with the accessibility of financial services for the individuals, including women, making it a practical measure to assess financial inclusion residing in different regions. The second proxy used for FI is a total outstanding loan. By focusing on access to loans from commercial banks significantly impact women empowerment. The third proxy used for FI is the number of automated teller machines (ATMs). Women are in need to gain financial means to pursue entrepreneurship, education, and other revenue-generating endeavors by expanding their access to loans, number of commercial bank branches and number of ATMs. In turn, this breaks the cycle of financial dependence for women, promoting their

Source: Authors' compilations

¹ Argentina, Algeria, Brazil, Bangladesh, Cote d'Ivoire, Chile, Cameroon, Costa Rica, Ecuador, Guatemala, Egypt, Ghana, Guinea, Kenya, Kuwait, Honduras, Israel, Mali, Malaysia, Mexico, Mongolia, Morocco, Panama, Peru, Pakistan, Romania, South Africa, Philippines, Sri Lanka, Thailand, Togo, Tunisia, Uruguay.

economic freedom and contributing to their overall empowerment. Additionally, the study utilized the Gross Domestic Product (GDPPC) and Labor Force Participation Rate for Females (LFPRF) as control variables. Hypothesis of the study is that FI significantly affects women empowerment in developing countries.

4. Results and Discussion

4.1. Descriptive Statistics

Results of descriptive statistics described below in table 1. The total number of observations is 663. Descriptive analysis is an important part of quantitative research as it allows the researchers to summarize the primary characteristics of a dataset. It entails organizing, presenting, and analyzing data to provide a clear and meaningful summary of the data gathered.

Table 1: Descriptive Statistics

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|----------|-----|-----------|-----------|---------|-----------|
| GII | 663 | 45.914 | 12.675 | 10.2 | 72.8 |
| BCB | 663 | 3074.572 | 5138.266 | 25 | 33089 |
| ATMS | 663 | 10318.37 | 27872.221 | 4 | 184446 |
| LOANS | 663 | 4827993.6 | 19551326 | 1277.5 | 2.030e+08 |
| GDPPC | 663 | 2.067 | 3.773 | -19.244 | 15.155 |
| LFPRF | 663 | 31636170 | 1.380e+08 | 13.5 | 1.306e+09 |

Table 1 shows the descriptive statistics of variables. Mean, standard deviation, minimum and maximum values of variables described above.

4.2. Cross-Sectional Dependence Test

The Pesaran’s test measures cross-sectional dependence in panel data in Table 2. It is recommended that the null hypothesis be rejected due to the existence of cross-sectional dependency and the remarkably low p-value of 0.000. This dependence must be taken into consideration in the analysis because it implies that observations made in various nations are not independent.

Table 2: Cross Sectional Dependence Test

| Pesaran’s Test | Prob. Value |
|------------------------|-------------|
| 29.363 | 0.0000 |
| Average absolute value | 0.502 |

4.3. CIPS & CADF Unit Root Test

The second-generation unit root tests are used in the model as the data had cross-sectional dependence. The study includes both cross-sectional IPS test (CIPS) and cross-sectional Dickey Fuller test (CADF). The findings of table 3 show that the panels are not level stationary, and that no variable has a unit root.

Table 3: Unit Root Test (CIPS & CADF)

| Variables | CIPS | | CADF | |
|-----------|-----------|-----------|----------|----------|
| | I (0) | I (1) | I (0) | I (1) |
| GII | -2.134* | ----- | -1.625 | -2.053* |
| BCB | -1.581 | -2.923*** | | |
| ATMS | -1.712 | -2.759*** | -1.585 | -2.576** |
| LOANS | -1.421 | -2.415 | -2.026** | ----- |
| GDPPC | -2.328*** | -2.328*** | -1.432 | -2.613** |
| LFPRF | -3.227*** | -3.227*** | -1.340 | -2.741* |

***, **, * denotes significance at 10%, 5% & 1% level of significance.

4.4. Serial Correlation

Autocorrelation, often known as serial correlation, is the process by which an error term changes from one instance to the next. With a p-value below 0.05 and 0.01 in Table 4, the results indicate that H0 is rejected. In summary, a serial correlation issue has been identified.

Table 4: Serial Correlation Test

| F Statistics | Prob. Value |
|--------------|-------------|
| 125.573 | 0.000 |

4.5. Heteroskedasticity

Heteroskedasticity is an issue when the variance's error term is not constant. The Wald test is used to find out the heteroskedasticity problem. Table 5 displays the findings of heteroskedasticity. The null hypothesis is rejected in this case because the p-value is smaller than 0.01 and 0.05, indicating that heteroskedasticity in the model is an issue.

Table 5: Test for Heteroskedasticity

| Chi Square test | Prob. Value |
|-----------------|-------------|
| 3147.98 | 0.000 |

4.6. Driscoll Kraay Technique

The model exhibits serial correlation and heteroskedasticity, as indicated by the data presented in Tables 3 and 4 above. The present study uses the Driscoll Kraay standard error technique since the model includes cross-sectional dependency, heteroskedasticity, and serial correlation. The cross-section dependence and heteroskedasticity problem do not affect the robustness of Driscoll-Kraay standard errors. The result of the Hausman specification test is also presented in Table 6. The Hausman test is used to specify whether fixed model is appropriate or random effect model. Results in the following table showed that a fixed model is more appropriate as the p-value is less than 0.01. Results are reported below in table 6.

Table 6: Driscoll Kraay Standard Error

| GII | Coeff. | Driscoll kraay standard error | T | Prob. Value |
|-----------------------------------------------------------------|--------|-------------------------------|--------|-------------|
| BCB | -0.083 | 0.013 | -6.470 | 0.000 |
| ATMs | -0.048 | 0.045 | -1.070 | 0.302 |
| LOANS | -0.058 | 0.012 | -4.870 | 0.000 |
| GDPPC | -0.042 | 0.013 | -3.230 | 0.007 |
| LFPRF | -0.003 | 0.0008 | -3.660 | 0.002 |
| _cons | 0.672 | 0.044 | 15.110 | 0.000 |
| F (5, 16) = 47.70 Prob > F = 0.000 R-squared = 0.3142 | | | | |
| Hausman Test: Chi-square= 25.84, Prob. Value= 0.000 | | | | |

Results of the above table validate the main hypothesis that increase in financial inclusion enhances the women empowerment by reducing Gender inequality index (GII). 1 unit increase in commercial bank branches reduces gender inequality by 0.083 %. Similarly, the 1 unit increase in ATMs and amount of loans reduces GII by 0.048 % and 0.058% respectively. These findings are in line with Roy 2020, Kim 2016. To promote higher savings, there should be increased access to bank accounts for both official and informal financial transactions via ATMs, bank offices, deposit boxes, or mobile banking channels. Similarly, investment and domestic spending give women more empowerment. Additionally, access to formal banking services facilitates easier access to credit and loans, which can be instrumental in funding entrepreneurial ventures, education, healthcare expenses, and home ownership, among other endeavors. Reducing the gender gap in developing nations requires addressing structural barriers that limit women's economic participation. Banks loans and credits can assist women to start their own businesses and enterprises, invest in their skills and education and improve their livelihood. By supporting women entrepreneurs and small business owners, financial institutions and policymakers can contribute to job creation, economic growth, and poverty reduction. Moreover, access to formal financial services can positively influence women's spending habits, enabling them to make more informed decisions about household finances and investments in education, healthcare, and nutrition. Mainstreaming women into the decision making and including and empowering them financially within families and communities tend them to become agents of change within their families and communities, driving social and economic progress. Control variables GDPPC and LFPRF also have negative coefficients which showed that increase in female labor force participation rate and gross domestic product per capita reduces gender inequality and helps to improve women empowerment.

5. Conclusion and Policy Recommendations

This study significantly highlighted the value of financial inclusion to empower women and lessening gender inequality in developing nations. Panel data of 33 developing economies was selected. Driscoll Kraay standard error technique was employed which observed a strong correlation between the Gender Inequality Index (GII) and important financial variables (commercial bank branches, number of ATMs and outstanding loans). Financial inclusion

significantly influencing the women participation in economic activities and help to achieve the sustainable development goals. The inverse link between financial inclusion and the gender inequality index demonstrates the transformative impact of inclusive financial systems in fostering gender equality and women empowerment. Women can break away from traditional gender norms, increase their economic independence, and gain more control over their life if they have better access to formal banking, microcredit, and other financial services. The study recommended substantial policy implications to enhance provision of financial inclusion for developing economies to promote women empowerment and gender equality. Governments ought to put laws into place that guarantee women to access financial services that are suited to their requirements. This includes programs like providing savings accounts, insurance policies, and microloans exclusively to female small business owners and entrepreneurs. Additionally, funding programs for women's financial education can provide them an opportunity to make their choices independently. These courses ought to address financial management, investing, saving, and credit availability.

Governments should also provide support for women entrepreneurs by offering training, mentorship, and networking opportunities. This includes facilitating access to business development resources, market information, and funding sources to help women start and grow their businesses. Policies should aim to eliminate gender bias and discrimination within financial systems. This may involve implementing regulations that ensure fair treatment of women in accessing credit, securing loans, and participating in financial markets. Governments should work to increase women's participation in formal financial systems by promoting the use of bank accounts, digital payment platforms, and other financial services. This includes initiatives to improve access to banking facilities and technology infrastructure in rural and underserved areas. Policymakers should prioritize the collection and analysis of gender-disaggregated data on financial inclusion and women empowerment. This data can help identify gaps, track progress, and inform evidence-based policy decisions aimed at promoting gender equality and financial inclusion. Aligning financial inclusion policies with the SDGs, particularly Goal 5 on gender equality, can help prioritize efforts to advance women's empowerment through access to financial services. This integration ensures that financial inclusion initiatives contribute to broader development objectives. By employing these policy recommendations, governments can foster an enabling environment for women empowerment and promote greater financial inclusion, ultimately contributing to more equitable and sustainable development.

5.1. Future Research Directions

This study opens several avenues for future research work which can enhance the understanding of the role of financial inclusion in women empowerment in depth. Future researcher should investigate the role of digital financial service such as mobile banking and digital wallets in enhancing financial inclusion of women. Additionally, the role of digital financial literacy can be studied for the financial inclusion of females.

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