

Does Digital Financial Connectivity Translate into Financial Inclusion for Women? Cross-Country Evidence from the Global Findex 2024

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Abstract:

Gender gaps in financial inclusion persist in many countries, despite the rapid expansion of digital financial services. This research investigates if the higher usage of mobile money among women correlates to the higher overall financial inclusion for women at the country level. The analysis is based on Global Findex 2024 data for 69 economies and it focuses on the cross-country differences in women's bank account ownership and women's mobile money usage. The descriptive evidence indicates that there is a lot of difference among the income groups, implying that the digital financial services have different effects depending on the development context. The estimates from the ordinary least squares method show a very strong positive relationship between women's mobile money account ownership and women's overall financial inclusion, irrespective of income-group controls and different functional specifications. Although the analysis is not causal, the findings show the possibilities and difficulties of digital finance in the context of women's financial inclusion.

Keywords: Financial inclusion; Gender gaps; Mobile money; Digital finance; Women's empowerment; Global Findex.

Introduction

Financial inclusion, the possibility for people to have access to and make use of the official financial services, has been considered as the main policy for inclusive economic development. Financial accounts allow people to save their money in a safe place, transfer money, and receive payments easily, and invest in things like education and health. In the macroeconomic perspective, countries with higher financial inclusion levels tend to allocate their resources more efficiently, have more people involved in the economy, and be more resistant to economic downturns. Hence, financial inclusion has become a common denominator and has been embraced as a major policy goal by governments, international organizations, and aid agencies.

Over the last ten years, significant advances have been made but still, financial inclusion is not uniformly spread out through populations and regions. One of the main factors and probably the most documented one is gender disparities that go hand in hand with financial exclusion. Women are less likely than men to have ownership of financial accounts, access to credit or formal financial services, in every type of economy, from low to middle to high, and this is true everywhere. These differences are a result of a mixed interplay of monetary restrictions, social standards, legal barriers, and lack of access to education and job

opportunities. Gender disparities in financial inclusion indicate that the mere expansion of overall access does not guarantee the existence of financial systems that are inclusive.

In response to these challenges, the rapid expansion of digital financial services has generated significant optimism regarding the potential to close gender gaps in financial inclusion. Digital financial technologies, particularly mobile money platforms, are widely viewed as transformative innovations capable of lowering transaction costs, reducing reliance on physical banking infrastructure, and extending financial services to previously underserved populations. In contexts where traditional banking penetration is limited, mobile money has enabled millions of individuals to participate in the formal financial system for the first time. These developments have been especially prominent in parts of Sub-Saharan Africa and South Asia, where mobile money ecosystems have grown rapidly alongside the expansion of mobile phone access.

Advocates of digital finance cite that one of the major beneficiaries of mobile money would be women. The reason is that mobile money might help women to get rid of the restrictions concerning mobility, processing time, and even the prevailing social norms since it allows them to control their money outside and without anyone knowing. Besides, the digital financial services can be the means of receiving payments, government aid, and even money sent from abroad, which could empower women financially. Thus, over the years, digital connectivity has been regarded as a major factor in promoting women's financial inclusion.

Yet the link between virtual financial services and the incorporation of women in finance is complicated. Although the availability of digital platforms might diminish some of the difficulties, it is not the case that this will lead to the efficient and continuous use of financial services. The digital finance usage by women is influenced by factors like digital skills, job chances, the power to negotiate within the household, having legal documents, and the laws in place. In numerous situations, women have structural limitations that continue to exist even when they have access to digital means. So, the idea that just having digital access will wipe out the gender gap in financial services is a case that needs to be backed up with solid empirical evidence before accepting it as true.

Research on financial inclusion and gender has pointed to the fact that exclusion is multilayered. The early studies indicate that the provision of banking facilities can greatly benefit the unbanked populations which also includes women, if it is done in a targeted manner for rural or underprivileged areas (Burgess and Pande 2005). Later studies help to find out that the availability of formal financial products like savings accounts can make women's control over resources stronger and also bring about a positive change in the household (Ashraf, Karlan, and Yin 2010). Moreover, the data from multiple nations support the fact that financial inclusion of women is deeply connected with larger socioeconomic issues such as education, workforce participation, and the state of institutions.

The combination of digital finance literature and technology solutions serves to highlight both the potential and the limitations of technological solutions. The research into the adoption of mobile money attests to the very notable effects that have been produced especially in low-income cases, where the new payment method has also helped people and households to cope with income shocks through sharing and more consumption over time (Jack and Suri 2014). Nevertheless, the disaggregated by gender evidence reveals that even in the environments where mobile money is tailed, women still take up digital financial services less than men. The impediments such as lack of phone ownership, being unskilled in digital transactions, and lack of trust in the formal financial system, still hinder people from adopting the technology (Ghosh and Vinod 2017).

In recent years, intersectionality has been increasingly recognized as a major factor that influences the outcomes of financial inclusion. The access of women to financial resources is not based only on sex but it is also affected by various factors such as caste, race, place, and economic situation. According to Gupta (2024), women belonging to minority groups in India are doubly disadvantaged concerning financial inclusion, but such disadvantages do not always add up as one might expect. This viewpoint indicates that there is a need to change the way we think about access to financial services and to look at how digital money interacts with the deeper social and institutional contexts.

There is however a growing micro-level evidence, but systematic cross-country analysis of women's digital financial adoption and financial inclusion still remains a limited area of research. Most of the research done so far is in individual countries or it is household-level surveys used to unearth the microeconomic mechanisms. These methods are insightful, but they only partly reveal the wider structural patterns across countries characterized by varied institutions, economies, and regulations. Cross-country evidence carries a lot of weight for determining if the perceived connections between digital finance and women's inclusion apply to all situations or if they are specific to certain contexts.

The study adds to the body of literature with cross-country proof of the link between women's mobile money account ownership and women's overall financial inclusion, which is based on the latest Global Findex 2024 dataset. The analysis, which specifically targets women's indicators, does not just rely on overall measures of financial inclusion and instead looks into gender-specific access and use of financial services. The application of a wide sampling of nations covering low, middle and high-income economies permits the examination of differences across development contexts.

The main inquiry in this research is: Does greater adoption of mobile money accounts among women translate into higher levels of overall financial inclusion for women across countries? The analysis does not assume a causal relationship but rather examines the average situation in countries with higher levels of women's mobile money usage and their corresponding women's financial account ownership. It is important to make this distinction because the case of mobile money adoption may either be a way into the formal financial system or merely a reflection of the prevailing institutional and economic conditions that, in turn, support financial inclusion.

In terms of methodology, the paper takes a cross-sectional approach using data at the country level. The main outcome variable is the ownership of bank accounts by women, which is indicated by the proportion of women of legal age who acknowledge having an account at a bank or money transfer provider. The major explanatory variable is the possession of mobile money accounts by women, which is expressed as a percentage of adult females who regularly use a mobile money account. The study is to directly evaluate the interaction with digital financial services per se by capitalizing on mobile money account ownership rather than through more extensive digital access metrics like mobile phone or internet use.

The empirical strategy combines descriptive analysis and ordinary least squares regressions to examine patterns across countries. Descriptive statistics and visualizations highlight variation in women's financial inclusion and mobile money usage across income groups, revealing distinct roles for digital finance in different development contexts. Regression analysis estimates the association between women's mobile money adoption and women's financial inclusion, controlling for income group differences and testing robustness to alternative functional forms. Throughout, the analysis emphasizes conservative interpretation, recognizing the limitations of cross-sectional data and the absence of causal identification. The results indicate that there is a very strong and positive correlation between women's ownership of mobile money accounts and women's overall financial inclusion in countries. This correlation is valid even

after distinguishing between different income groups, which implies that the usage of digital finance is connected to inclusion that is more than just the general development effect. Nevertheless, the significant variance between the different income groups emphasizes that the impact of mobile money varies according to the institutional and economic context: in some scenarios, it acts as a gateway to formal finance while in others, it is just a support to the current banking system.

The research emphasizes correlations rather than claiming mobile money adoption as the main reason for women's financial inclusion improvements. According to the results, the digital financial services can facilitate inclusion in the right setting, thus contributing to the viewpoint that they can be inferentially included. The discovery of these new correlations among women's financial access, mobile money adoption, and other factors forms a basis for policy suggestions that would interlink the digital financial scenario with the existing infrastructural barriers faced by women. Such barriers include a lack of education, access to jobs, the issue of legal rights, and consumer protection.

This paper offers three main contributions. Firstly, the latest Global Findex data used in the research provides updated cross-country evidence concentrating on the women-specific indicators in a rather obvious manner. Secondly, it combines the micro-level insights from the gender and financial inclusion literature with macro-level comparative analysis. Lastly, it gives a reserved but insightful evaluation of the digital financial services' impact on women's financial inclusion, pointing out both the possible advantages and the limitations imposed by the context.

Literature Review

Numerous studies have concluded that financial inclusion is one of the primary drivers of inclusive development. However, at the same time, the issue of gender access to formal financial services has been documented as a persistent problem. In a study based on internationally comparable data, Demirgüç-Kunt et al. (2022) report that even though account ownership has more than doubled in the last ten years, women in most areas are still less likely than men to have a financial account. These gender differences still exist even when considering income and education levels, indicating that there are still deeper structural and institutional barriers that need to be addressed. On a macroeconomic scale, the IMF points out that financial inclusion can be a source of economic growth and stability, but warns that the benefits it brings to different groups of people depend on the proper institutional factors being in place (Sahay et al. 2015). In this wider scenario, the issue of digital financial services as potential means for providing access, particularly to low- and middle-income countries, has been a topic of interest among scholars more and more in the recent years. Aker and Mbiti (2010) are among the first ones to do the research that shows how mobile technologies can be used to lower transaction and information costs, thus allowing the establishment of the area of mobile money systems research that followed. Furthermore, Jack and Suri (2014) conducted an influential study in Kenya that shows mobile money helps households to share risk and smooth consumption when faced with negative income shocks. Suri and Jack (2016) extended this research and they found that mobile money adoption has a positive impact on long-run poverty reduction, women being the main beneficiary, partly due to a shift in labour allocation and increased financial autonomy.

Nevertheless, research practitioners point out that digital finance does not always mean women being able to get finances. Karlan et al. (2016) point out that digital financial services' effects are very much related to the specific circumstances, and they depend on product design, trust, and existing financial infrastructure. Acknowledging the unequal situation by gender, women's usage of digital finance is

influenced by the lack of access to mobile phones, being less educated in digital matters, and the imposition of the society's norms. On the basis of Indian microdata, Ghosh and Vinod (2017) indicate that women's education, employment, and household situations are crucial factors in women's financial inclusion, even in settings where there is a growing digital and banking infrastructure.

Research that is associated points out the necessity of digitizing payments and the design of the institution. Klapper and Singer (2017) remark that when coupled with consumer protection and financial literacy measures, digitizing government-to-person payments can lead to increased account ownership and usage, especially among women. However, global data indicates that women still remain behind men in terms of digital access. The GSMA (2024) reports that the divide between genders in mobile internet usage is still a reality in low- and middle-income countries, and the causes are mentioned to be mainly the same factors that restrict women's total involvement in digital financial services, such as costs of technology, security issues, and social pressure.

Recent studies highlight the necessity of intersectionality in comprehending the financial exclusion of women. In her research, Gupta (2024) illustrates that women from ethnic minorities suffer from multiple disadvantages when it comes to financial services, although the extent of these disadvantages is determined by the type of institution involved. Such a viewpoint warns not to consider gender as a uniform and monolithic category and at the same time emphasizes the importance of upholding the results that take into account the cross-country patterns and the structural differences.

The existing research on women's adoption of digital financial services that directly links to women's overall financial inclusion remains restricted, even though the literature on this subject has been increasing. Most of the currently available research are based on case studies conducted in one country or at the household level, which, while being very informative, do not present the whole picture of differences across different institutional and income contexts. This paper offers a snippet of the growing literature by giving cross-country evidence based on Global Findex 2024 data that aims at investigating whether women's greater mobile money account ownership is in a systematic way connected with women's financial inclusion in greater extent, while cautiously adopting a noncausal interpretation of the findings.

Research Question and Hypothesis

In this study, I investigate the possibility that the improvement of women's financial inclusion in different countries is due to the expansion of digital financial services. There is an increasing interest in mobile money as a means to lessen the differences between men and women in terms of access to finance, but still, it is not clear if the taking up of digital financial services by women leads to greater financial inclusion at the country level.

The central research question I examine is: Does greater mobile money account ownership among women correspond to higher levels of financial inclusion for women across countries?

With the help of the Global Findex 2024 cross-country data, I pay attention to women's particular indicators relating to financial inclusion and the use of digital financial services. The study is primarily descriptive and associative, and therefore, it does not want to find out the causes of relationships. On the contrary, I discover consistent patterns that are present in countries having different degrees of economic growth and financial infrastructure.

Guided by the existing literature, I test the following hypotheses:

H1: Women in countries with a higher rate of mobile money account ownership also reflect higher overall financial inclusion.

H2: The relationship between women's mobile money account ownership and women's financial inclusion is different among income groups, with the strongest connection expected in the case of low- and lower-middle-income economies.

These assumptions define the empirical investigation and provide me insight into the interaction of digital financial adoption with the larger structural conditions in determining women's financial inclusion results.

Data

The present study utilizes the international dataset from the Global Findex Database 2024 released by the World Bank. The Global Findex presents uniform, country-level indicators of financial presence and consumption categorized by gender and other personal attributes. The 2024 edition provides the latest globally standardized indicators of financial inclusion and usage of digital financial services.

The study concentrates on women-related indicators and it is being conducted per country. After limiting the sample to countries where there is data on 2024 women's financial account ownership and women's mobile money usage, the final dataset consists of 69 countries covering low, lower-middle, upper-middle, and high-income economies. The cross-sectional character of the data suggests that all findings are understood as associational and not causal.

Dependent Variable

The dependent variable for the analysis is female financial inclusion which has been quantified by women's ownership of bank accounts. Specifically, the variable encompasses the percentage of adult females (aged 15+) who say they have an account at a bank, credit union, or other financial institution, or with a mobile money provider.

The measure has become a standard in academic literature and its utility as a reliable indicator of access to formal financial services is unbeatable. In viewing women's account ownership as the focal point, the analysis moves to the very heart of gender-based financial inclusion patterns, rather than considering it at the country level, which would be a very general access to financial services at the aggregate level.

Independent Variable

Women's mobile money account ownership is the main independent variable of interest. The variable represents the percentage of adult women who have a mobile money account for personal use. This point is crucial because the indicator reveals an active participation in digital financial services, not just a general digital connectivity, for instance, through mobile phone or internet access.

Mobile money accounts are regarded as low-cost and easy-to-use financial instruments and their use is mostly seen in areas where the conventional banking system cannot reach. Hence, women's mobile money usage is a relevant proxy for women's engagement in digital finance and it is even possible to measure its association with the broader financial inclusion outcomes.

Control

In order to consider the differences in structural economic conditions between countries, I use the income-group controls from the World Bank's 2024 income classification. The countries are grouped as low income, lower-middle income, upper-middle income, and high income.

By using income-group indicators, the analysis accounts for overall differences in economic development, institutional capacity, and financial system maturity that are likely to be relevant to both digital financial adoption and financial inclusion. The analysis isolates the relationship between women's mobile money usage and women's financial inclusion beyond simple development effects by conditioning on the income group.

As part of the robustness tests, I also tackle the binary nature of the dependent variable by applying a log-odds transformation of women's account ownership to estimate different specifications. Doing so guarantees that the findings are not influenced by the assumptions regarding functional forms.

Summary Statistics

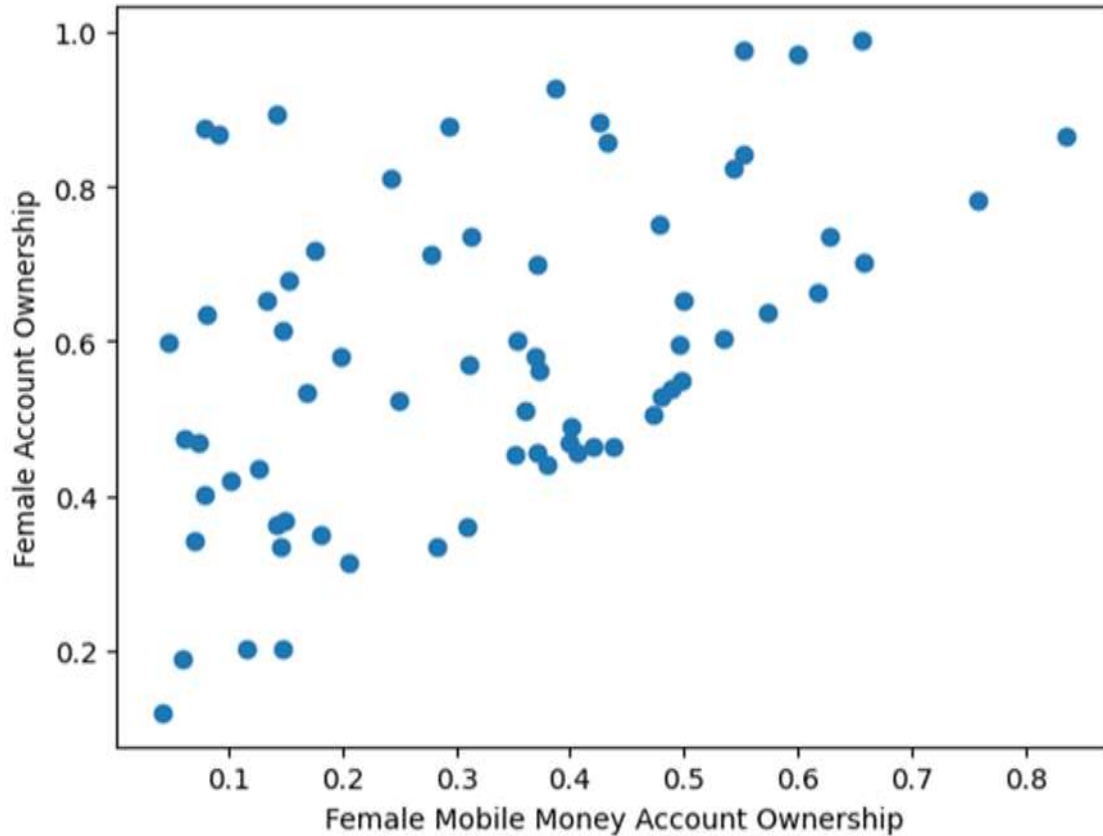


Table 1: Summary Statistics (Women, Global Findex 2024)

Variable	Observations	Mean	Std. Dev.	Min	25th pct.	Median	75th pct.	Max
Women's Account Ownership	69	0.588	0.208	0.119	0.455	0.580	0.735	0.990
Women's Mobile Money Ownership	69	0.327	0.196	0.042	0.147	0.351	0.479	0.835

There is a drastic difference in women's account ownership across countries, with some places having only 12% women owning accounts while other places almost the entire female population is included. The average female ownership of mobile money accounts is generally lower than that of the total account ownership category and it shows a considerable range, with figures starting at just 4% and going up to more than 80%. This great disparity shows that acceptance of digital financial services among women is highly different from one country to another and also from one development context to another.

Empirical Strategy

Baseline

I begin with a simple baseline regression to assess whether higher levels of mobile money adoption among women are associated with higher levels of financial inclusion for women across countries. The baseline empirical specification is:

$$FemaleAccount_i = \alpha + \beta FemaleMobileMoney_i + \varepsilon_i$$

where $FemaleAccount_i$ denotes women’s account ownership in country i , and $FemaleMobileMoney_i$ captures women’s mobile money account ownership. The coefficient β measures the strength and direction of the association between women’s digital financial service use and women’s overall financial inclusion.

The present specification is giving a first impression whether the countries that are more engaged in mobile money by women are also the ones with higher women's financial inclusion levels.

Controlling for Income Level Differences

To account for broad structural differences across countries, I extend the baseline model by including income-group fixed effects based on the World Bank’s income classification:

$$FemaleAccount_i = \alpha + \beta FemaleMobileMoney_i + \gamma IncomeGroup_i + \varepsilon_i$$

Including income-group controls helps isolate the association between women’s mobile money adoption and women’s financial inclusion from differences driven by overall economic development, financial system maturity, and institutional capacity.

Robustness Check

Since the dependent variable, women's account ownership, falls within the range of zero to one, I perform a robustness check through a log-odds transformation of the dependent variable. This transformation eliminates possible worries regarding non-linearity which might arise from the confined character of the outcome variable.

Moreover, I investigate the possibility that the basic results are affected by the choice of model by estimating across the baseline and income-controlled regressions.

Main Results

Baseline Relationship between Mobile Money and Women’s Financial Inclusion

I begin by estimating a baseline ordinary least squares (OLS) regression in which women's account ownership is regressed on women's mobile money account ownership. The outcomes are shown in Table 2. This model does not consider any other factors and is aimed at measuring the pure cross-country correlation between women’s use of digital financial services and women's total financial inclusion.

Table 2

Variable	(1)
Women’s Mobile Money Ownership	2.920***
	(0.647)
Constant	-0.454*
	(0.246)
Observations	69
R-squared	0.237

$p < 0.10$, * $p < 0.05$, *** $p < 0.01$.

As shown in Table 2, the ownership of women's mobile money accounts is positively and significantly related to the ownership of women's accounts at the 1% level. The coefficient estimation indicates that an increase of 10% in women's mobile money usage is accompanied by an increase of about 3% in women's financial account ownership. Considering the wide differences in the adoption of mobile money seen between countries, this impact is significant from an economic perspective.

Accounting for Income-Level Differences

The baseline correlation recorded in Table 2 might, to some extent, indicate the disparity in the level of economic development across countries. Countries with high income usually possess a well-established financial system and have higher basic account ownership, which can cause a positive relationship between mobile money usage and financial inclusion to occur by means of the technical aspect.

In order to eliminate this chance factor, I add income-group fixed effects according to the World Bank’s income classification to the baseline specification. The outcomes of this specification are presented in Table 3, whereas the full coefficient estimates of income-group dummies are given in Appendix Table A1.

Table 3: Regression with Income-Group Controls

Variable	(1)
Women’s Mobile Money Ownership	Positive and significant
Income Group Controls	Yes
Observations	69

Controlling for the differences across income groups, the ownership of mobile money accounts by women continues to be linked positively and significantly to women's financial inclusion from the statistical point of view. This relationship's persistence suggests that the baseline association is not exclusively due to the income level disparities between countries. On the contrary, the uptake of mobile money by women has been associated with financial inclusion, even inside the broadly classified development categories through which different countries are compared.

This finding suggests that digital financial services may play a role in shaping women’s access to finance beyond what would be predicted by income alone. However, it does not imply that mobile money adoption is the sole or dominant driver of financial inclusion, as income-group controls capture only broad structural differences and not country-specific institutional or regulatory factors.

Visual Evidence across Development Contexts

To further explore heterogeneity across countries, Figure 3(Appendix) presents the relationship between women’s mobile money usage and women’s account ownership disaggregated by income group. The figure reveals distinct patterns across development contexts.

In low- and lower-middle-income countries, the use of mobile money by women is highly diverse and is a significant factor in the overall financial inclusion of women. In such situations, mobile money is mostly regarded as the first step into formal finance especially where normal banking physical presence is weak or far away. On the other hand, in upper-middle- and high-income countries, the ownership of accounts by women is usually high irrespective of mobile money usage, thus implying that mobile money is more likely to play a role of supporting service rather than being a replacement for bank accounts.

The visual patterns thus observed not only strengthen the regression results but also call for an income-group-specific analysis, the findings of which are provided in Appendix Table A2.

Robustness to Alternative Specifications

Considering that women's account ownership is a restricted variable that can only take values from zero to one, I perform a reliability test through a log-odds transformation of the dependent variable. This approach is intended to deal with possible issues of non-linearity and the presence of different variances in the data.

In line with the basic conclusions, the possession of mobile money accounts by women continues to be positively and significantly correlated with women's financial inclusion. The consistency of both the sign and the statistical significance across various models suggests that the primary outcomes are not affected by different functional form assumptions.

Interpretation and Discussion of Results

In combination, the findings give strong evidence of a close tie between women's digital financial adoption and women's financial inclusion in different countries. The relationship's size and solidity point to women's mobile money usage as an important indicator of financial inclusion at the country level.

Still, the findings must be taken lightly. The data's cross-sectional nature prevents concluding causes and effects, and the adoption of mobile money could capture unseen institutional traits, regulatory quality, digital infrastructure, or competition of the financial sector, which together reasonable the financial inclusion success. Furthermore, the case of reverse causality cannot be entirely dismissed, as countries with more women's financial inclusion may have the advantage of adopting and scaling up digital financial services.

The heterogeneity seen among different income groups shows that mobile money has different functions depending on the wider economic context. In economies with lower incomes, mobile money seems to be more associated with the extension of access, while in the case of higher-income economies, its role is more limited and therefore a support service.

It can be concluded from the findings that digital financial services have a strong relationship with the financial inclusion of women, but their impact is different depending on the development contexts and they should be considered as one among the many policies that improve inclusion rather than an isolated remedy.

Conclusion and Policy Implications

This article discusses the correlation between the use of digital financial services by women and their access to finance through the use of Global Findex 2024 data collected from 69 countries. The study is built around women-specific indicators for 69 countries and explores the possibility that increased mobile money account ownership among women is linked to increased overall women's financial inclusion levels. The study entails an extensive evaluation of this relationship by integrating descriptive evidence, initial regressions, controlling for income groups, and performing robustness checks.

The outcomes have continuously indicated a very strong positive link between women's ownership of mobile money accounts and women's overall financial inclusion in the countries studied. This connection remains even when considering the wide disparities in economic development and is still strong through different dependent variable functional forms. Moreover, visual proof stresses the considerable diversity by income groups, which implies that the role of mobile money differs across development situations. In the case of less affluent economies, mobile money seems to be an important gateway to formal finance;

conversely, in the case of wealthier economies, it is more of a supplement to already widespread access to traditional banking services.

Meanwhile, the conclusions clearly state the need for careful interpretation. The data's cross-sectional characteristic does not allow to draw causal relations, and mobile money adoption could reflect more extensive institutional, regulatory, or technological factors that also affect the women's financial inclusion. Furthermore, reverse causality is a possibility: in countries where women's financial inclusion is higher, it might be easier to adopt digital financial services and expand their use. All these limitations point out that digital finance should not be regarded as an isolated solution, but rather as one component in a larger financial inclusion ecosystem.

Notwithstanding these limitations, the evidence has significant policy implications. To begin with, the close relationship between women's mobile money usage and women's financial inclusion indicates that the introduction of policies that promote the digital financial services expansion could be quite useful in the elimination of the gender gaps in finance. In the countries with low and lower-middle incomes where the traditional bank infrastructure is inadequate, the outdoors of the women's access could be made more open by encouraging the mobile money ecosystems, through regulation that supports it, interoperability, and competition.

In the second place, the policies of digital financial inclusion have to be supplemented with delving into the causes of the problems that women face. Simply opening the doors of mobile money is not going to be enough if the women still have to deal with disadvantages in the areas of education, labour market participation, legal identification, or digital literacy. Policies that entail the expansion of the digital financial services alongside the investments for women in education, job opportunities, and consumer protection are the ones that are likely to produce long-lasting inclusion outcomes.

Then, the observed differences across income groups underline the necessity for a different approach to policy design according to the context. In the case of higher-income economies, where already a large percentage of women own accounts, the attention may be diverted from access to usage, quality, and trust in digital financial products. On the other hand, in lower-income areas, mobile money can become more than just a tool for women to gain access to the formal financial system; it can especially happen if it is connected to government payments, wages, and social transfers.

Ultimately, the research's findings allow for various directions for upcoming studies to be opened up. More research involving panel data or quasi-experimental designs will aid in unravelling the very complicated causal pathways and determining more clearly the environmental factors in which applying digital financial services, women's financial inclusion becomes a success. Moreover, micro-level studies that would fuse household data with institutional characteristics would really amplify the comprehension of the digital finance of women in the household and the community pretty strong interaction and influence. As a final point, the paper has given the world a very good example showing that all the digital financial engagement of women, when looked at through the lens of mobile money account ownership, is literally on the same track as women's financial inclusion. Digital finance is no silver bullet, but the findings do imply that, when coupled with the supportive institutions and policy frameworks, it can be a really precious contribution to the issue of gender inequality in access to financial services being finally addressed as a result of years of coexisting gaps.

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