

Gender Mainstreaming in Asia Through Financial Empowerment

Seema Mehra Parihar¹

Neha Verma²

Pratibha Madan³

Abstract

Purpose : This study examined the importance of financial empowerment in Asian economies for enabling gender mainstreaming and lowering gender disparities. Women are given more autonomy and improved decision-making authority in the home when gender disparities in financial empowerment are closed. This study highlighted that better financial access and usage can lead to faster progress toward gender equality across economic and social domains.

Methodology : Using the World Bank's Global Findex Database (2017–2021) for 14 middle-income economies in Asia, an index for financial inclusion (FI) was constructed using principal component analysis (PCA). The co-movement between the FI index and developmental outcomes for women pertaining to employment, entrepreneurship, and political participation showed how gender equity moves in accordance with FI for Asian women.

Findings : The paper found the existence of a significant gender gap in financial access and usage in these economies. Moreover, a significant positive correlation was found between the FI index for women and their participation in the labor force and entrepreneurial activities, providing policy implications for gender mainstreaming.

Practical Implications : The paper recommended policy initiatives to foster more inclusive financial systems that empower Asian women and promote sustainable economic development in the region. Gender mainstreaming and women's financial empowerment in Asia can be strengthened by increasing the focus on policies specifically designed for women, promoting financial and digital literacy among women, and fortifying the collection of sex-disaggregated data.

Originality : Unlike prior research on FI and among women, the current work focused on its relationship with the labor market and public participation outcomes for women, thereby enriching the literature on gender mainstreaming.

Keywords : gender mainstreaming, financial inclusion, Asian women, labor force participation

JEL Classification Codes : G21, J16, O16

Paper Submission Date : July 22, 2024 ; **Paper sent back for Revision :** October 1, 2024 ; **Paper Acceptance Date :** October 15, 2024

Growing evidence suggests that a country's economic growth and development can be catapulted by better participation of women in the economic landscape. In contemporary discourse, there is a pressing emphasis on implementing context-specific initiatives across policy, programming, and institutional frameworks to underscore the centrality of gender considerations within all facets of economic endeavors. This

¹ Professor, Department of Geography, Kirori Mal College, University of Delhi & ¹Fellow, DSPH, Institute of Eminence, University of Delhi, Delhi - 110 007. (Email : smparihar@kmc.du.ac.in)

² Associate Professor (Corresponding Author), Department of Economics, Kirori Mal College, University of Delhi, Delhi - 110 007. (Email : nverma@kmc.du.ac.in) ; ORCID iD : <https://orcid.org/0000-0003-3522-244X>

³ Associate Professor, Department of Economics, Kirori Mal College, University of Delhi, Delhi - 110 007. (Email : pratibh.703@gmail.com)

DOI : <https://doi.org/10.17010/aijer/2024/v13i4/174045>

phenomenon constitutes *gender mainstreaming*. It involves the realization of gender equality across various economic and social dimensions, including employment, political representations, and entrepreneurship. The interlinkages between gender equality and economic growth are crucial today, and the efforts toward mainstreaming gender are indispensable for inclusive and sustainable economic development in any society. Although both developed and developing nations have implemented a number of strategies to address gender differences in opportunities and results, much-needed gender equality in all economic domains has not yet been attained.

The various dimensions of gender inequality measures for women include low labor force participation rates, informal work, unequal pay, lesser representation in businesses and politics, weaker health and education outcomes, and low levels of digital and financial literacy, among others. To counter the exacerbating of gender gaps along these measures and foster gender mainstreaming, financial empowerment can play a pivotal role. The term “critical process that ensures equitable access to financial services and timely provision of adequate credit, particularly to vulnerable and underserved segments of society” refers to financial inclusion (FI), as described by Rangarajan (2008). The significance that the United Nations' Sustainable Development Goals (SDGs) place on FI makes clear how important it is to create a sustainable future. FI is seen as an enabler of eight out of seventeen SDGs.

However, as Dua et al. (2023) pointed out, gender discrepancies still exist in both industrialized and developing countries despite attempts to promote FI. Data from the Global Findex indicates that in 2021, the average gender gap in account ownership across developing nations was more than five percentage points. This disparity is even more pronounced in emerging and developing regions such as South Asia, the Middle East, and Africa, where the gaps range between 13 and 20 percentage points. Thus, there is significant regional variation in gender-based FI. The disparities in financial access and usage underscore policymakers' urgent need for targeted interventions. Financial Alliance for Women (2022)¹ finds that 73% of women globally are unsatisfied with their banking services, only 34% of the world's businesses are owned and operated by women, and 68% of women's businesses in emerging economies have unmet credit needs. Dupas and Robinson (2013) argued that enhancing financial empowerment among women can yield multidimensional benefits. It can reduce financial vulnerabilities among women, encourage entrepreneurial ventures, enhance their bargaining power within households, and improve ownership and participation outcomes in public life. Moreover, the Global Gender Gap Report (2023)² identifies various aspects – health, education, and politics – where gender gaps persist. FI of women can help to close these gender gaps as well.

To investigate the connection between gender mainstreaming and FI, this paper examines data from Asian economies. The lower and middle-income countries of Asia are particularly crucial because of their socio-economic landscape, high poverty rates, and persistent gender inequalities. Global Gender Gap Report (2023) emphasized that there are notable gender disparities in Asian economies in a number of areas, such as political representation, economic engagement, health, and education. Moreover, there are discriminatory cultural and social norms in these economies that exacerbate gender inequalities and limit the agency and opportunities available to women. The social norms are also found to impede the participation and mobility of women in the context of economic activities and decision-making processes. Scholars and policymakers can create tailored interventions for women that seek to remove obstacles to gender equality and promote inclusive growth by looking at these issues in the Asian context.

Based on the empirical evidence, Asian economies present a case to study for the interlinkages between gender mainstreaming and FI. The report by the Asian Development Bank (2022)³ highlights a concerning gender

¹ <https://financialallianceforwomen.org/>

² <https://www.weforum.org/publications/global-gender-gap-report-2023/>

³ <https://www.adb.org/what-we-do/topics/gender>

disparity in the labor force participation rates, with only 49% of women of working age engaging compared to 80% of men in Asia. Furthermore, there is inequality of pay, with women earning 30–40% lower than their male counterparts. Moreover, findings from the World Economic Forum (2023)⁴ reveal that at the current pace of progress, women in East Asia and the Pacific would require 189 years to achieve parity with men. This daunting figure for this region far surpasses the global average of 131 years.

In light of these arguments, this study explores how financial empowerment can reduce gender inequalities and accelerate gender mainstreaming in Asia. It begins by examining women's current access to and use of financial services, along with making a comparison with that of men's counterparts. The intersection of FI initiatives in Asian economies with the aspects of gender mainstreaming is then examined. Lastly, in light of these results, the article makes policy suggestions to close the gender gap in FI and promote inclusive economic growth.

This paper offers several important contributions to the existing literature. First, unlike the previous studies on the subject, it provides a longitudinal analysis of how these gaps have evolved. It also offers insights into gender-based FI across countries belonging to different income groups. Second, the paper makes a significant contribution by examining the broader impacts of FI on women, particularly in terms of their participation in the labor force and public life.

Literature Review

The interlinkages between FI and gender equality have been studied in recent literature. However, past research fails to capture the multidimensional nature of gender mainstreaming and FI in their model specifications. This paper fills this gap in the literature by focusing on diverse aspects of gender equality and creating an FI index to measure women's overall level of financial empowerment in Asia.

Role of Financial Inclusion in Economic Growth

A strong financial system can help all segments of the population have quicker access to financial services (Chettri & Raju, 2014; Sarma, 2016; Singh & Stakic, 2021). The usage of financial goods and services is also essential to ensure an “all-inclusive” developmental approach for policy formulation and implementation (Tandon & Singh, 2021). It has been found that indicators of poverty and inequality in an economy are inversely correlated with the formalization of the banking system in the economy (Banerjee & Newman, 1993; Burgess et al., 2005; Clarke et al., 2006). The vulnerability among the impoverished can be addressed by better access to formal credit, offering insurance facilities, and encouraging microfinance and self-employment (Patel & Patel, 2020). This, in turn, can have a positive impact on wages and the total factor productivity of the economy (Buera et al., 2021). In the context of gender inequalities, Cabeza-García et al. (2019) investigated the data for 91 developed and developing economies and found that greater FI of women positively affects economic development.

Drivers of Gender-Based Disparities in Financial Inclusion

Ghosh and Vinod (2017) explored the intersection of gender and finance in India, revealing significant gender disparities in access to and use of financial products. They find the level of education and wages to be the key factors in explaining these disparities. Education is an important factor in restricting financial access for those at the bottom income quintile, especially for female youth (Aslan, 2022; Maruta et al., 2023). Aziz et al. (2022)

⁴ <https://www.weforum.org/publications/global-gender-gap-report-2023/in-full/benchmarking-gender-gaps-2023/>

observed a comparable gender-based disparity in FI in the setting of South Asian economies, where socioeconomic and religious limitations are important reasons that prevent women from holding bank accounts. Ghosh and Chaudhury (2019) found statistical evidence to conclude that gender differences in socio-economic variables largely explain the gender gap in FI.

Nexus Between Women Empowerment and Financial Empowerment

The literature examining the role of FI as a driver of gender mainstreaming is in a nascent stage. According to a primary survey conducted by Pal et al. (2022) among women in the Indian state of Gujarat, receiving transfer payments from social welfare programs, earning status, and involvement in household financial decision-making all significantly affect gender empowerment in the state. Other factors discussed in the literature include financial independence in terms of better employment and earning outcomes (Adera & Abdisa, 2023; Arshad, 2023). A multi-dimensional study of women empowerment is conducted by Bhatia and Singh (2019) in urban Indian slums with women having bank accounts under Pradhan Mantri Jan Dhan Yojna (PMJDY)⁵, finding the positive influence of financial access on women empowerment's social, political, and economic aspects (Thakur, 2022). Fareed et al. (2017), using individual-level survey data, found that FI is positively linked to entrepreneurship outcomes for women, while Moghadam and Karami (2023) found a positive relationship between FinTech and women empowerment.

Conceptual Framework : Gender Mainstreaming and Financial Inclusion

The conceptual framework for the relationship between FI and gender mainstreaming in an economy is explained in this section. The various dimensions of financial empowerment include access and usage of financial goods and services and improved financial literacy. Under financial access, banking, insurance, and pension services are included, along with access to digital services. Financial usage caters to credit provisions, payment, and remittances, while the quality aspect of FI includes financial and digital literacy and consumer protection.

Improving the three dimensions of FI for women would reduce gender inequality and close the gender gaps in various individual and social outcomes. These outcomes include employment, earnings, education, health, public life participation, social networks, demand for credit for businesses, ownership of assets, and participation in e-governance programs. A more comprehensive approach to FI can tackle the presence of gender gaps in these outcomes and opportunities.

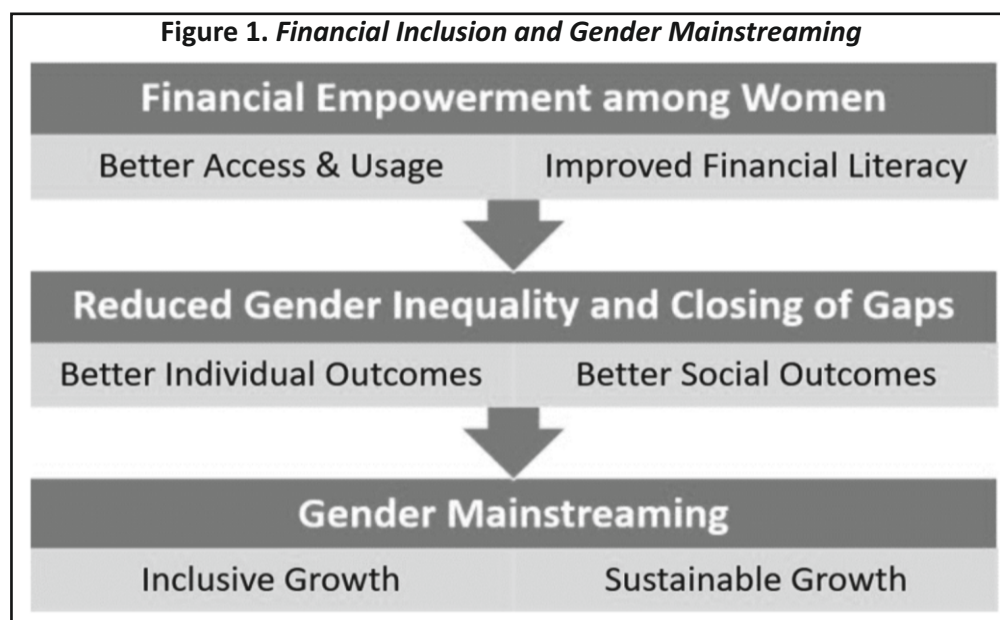
Figure 1 presents the conceptual framework discussed. With reduced gender inequality and the closing of gender gaps, gender mainstreaming can finally be achieved in all aspects of the economy. The economic growth with gender mainstreaming would be an inclusive and sustainable growth trajectory.

Data Analysis

Variables and Country Selection

The research paper integrates a comprehensive array of variables to examine gender mainstreaming and financial empowerment across Asian economies. The gender mainstreaming data encompasses three sets of indicators, namely, employment, entrepreneurship, and public life. Under the category of employment, we use data on labor force participation rate (LFPR), employment in agriculture, and employment in services. Under

⁵ PMJDY is a flagship program of the Government of India launched in 2014 to provide bank accounts to everyone and thereby universalize access to banking services.



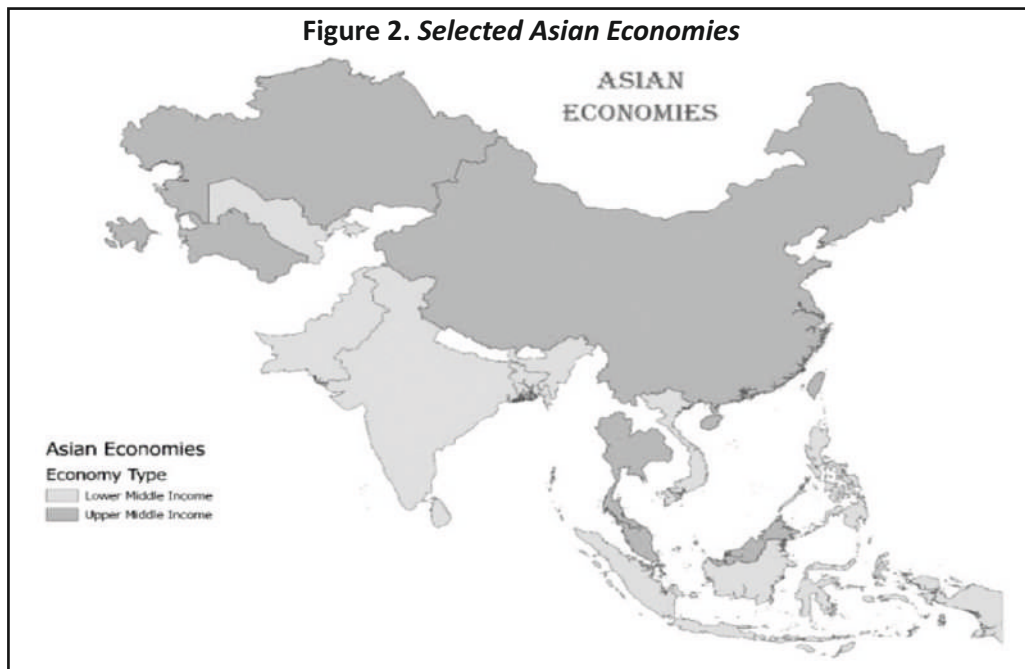
entrepreneurship, data on women employers and women directors are analyzed. We use data on women's participation in parliaments to measure public life. These variables collectively provide insights into various aspects of women's participation in the workforce and public sphere. On the other hand, the financial empowerment data includes indicators like account ownership, ownership of a debit card, saved money, borrowed money, and made or received digital payments. These indicators offer a comprehensive view of women's access to and usage of financial products and services.

Data for gender mainstreaming variables are primarily sourced from International Labour Organization (ILO) Estimates, the World Bank Gender Data Portal, and Our World in Data. Financial empowerment data are obtained from the World Bank Global Financial Inclusion Database. Data points for 2011, 2014, 2017, and 2021 are accessible, and the data-gathering timeline runs from 2011 to 2021. Gender mainstreaming and financial empowerment trends and changes over time can be examined thanks to this longitudinal approach.

The study covers 14 Asian economies (see Table 1), collectively from both upper-middle-income and lower-middle-income groups (refer to Figure 2). The Asian region represents around 60% of the world's population and 30% of the world's land area, making it important to study the region. The study focuses on Asian economies also due to their diversity, with countries at varying stages of development, offering a comprehensive perspective on the issue. Additionally, persistent gender gaps in financial access and usage are a notable challenge in these

Table 1. Asian Economies Selected

<i>Upper-Middle Income Countries</i>	<i>Lower-Middle Income Countries</i>
Azerbaijan	Bangladesh
China	India
Kazakhstan	Indonesia
Malaysia	Pakistan
Thailand	Philippines
Turkmenistan	Sri Lanka
	Uzbekistan
	Vietnam



economies, making them crucial to understanding FI barriers. According to Penn World Tables, 2019, the Asian countries were selected based on the variables' data availability and their combined 96% GDP share in emerging and developing Asia (Feenstra et al., 2015). The selected countries reflect different regions of Asia, including Central Asia, East Asia, South Asia, and Southeast Asia.

Statistical Methodology

The present study employs descriptive statistics techniques to study the role of financial empowerment in gender mainstreaming in Asia. The principal component analysis (PCA) technique is used to construct an index for FI. PCA facilitates the transformation of a multitude of FI measures into a consolidated index. It operates as a dimensionality reduction method, condensing a substantial array of variables into a more concise set that retains the essential information of the original dataset. In our study, we apply PCA to distill diverse FI indicators about women for 2017 and 2021 into a singular FI index⁶.

Every indicator is normalized to remove units using the formula $(X - \text{mean}) / \text{standard deviation}$ before computing the principal components. This process ensures that the mean of the original variables becomes zero while their standard deviation becomes 1. Subsequently, for each index, we select the first principal component that accounts for the greatest proportion of variance in the explanatory variables. The loadings about the first principal component are then derived, and a linear combination of these loadings and standardized explanatory variables is computed to produce the PC Score.

By using PCA, we want to identify broad trends and patterns across these variables and present a thorough picture of women's FI status throughout the designated period.

A threefold descriptive statistical analysis is conducted⁷ after obtaining the FI index for women.

↪ For each FI measure, the performance of men and women is compared in the case of sampled Asian economies as stylized facts.

⁶ The financial inclusion index is constructed using PCA, which is done using the statistical software Stata.

⁷ The descriptive statistical analysis in the paper is done using the statistical software Rstudio.

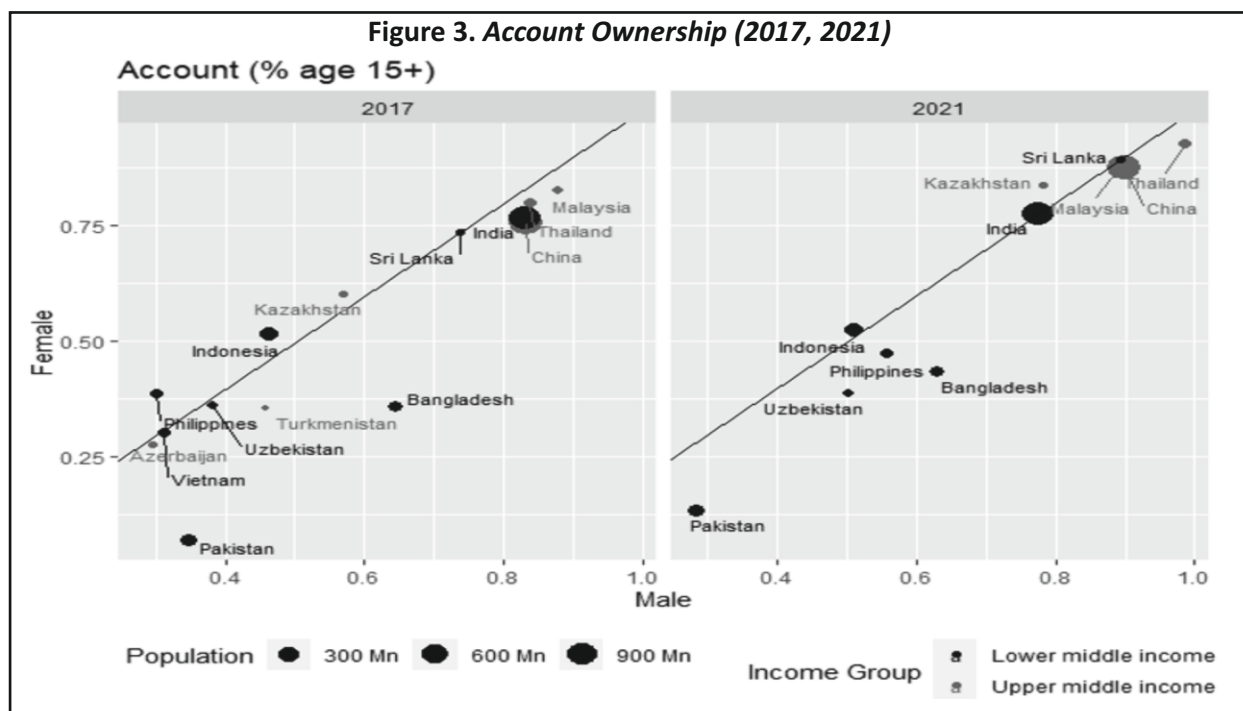
- ↳ The co-movement between gender mainstreaming variables and the estimated FI index is assessed for the economies.
- ↳ A correlation analysis between measures of gender mainstreaming and FI is done.

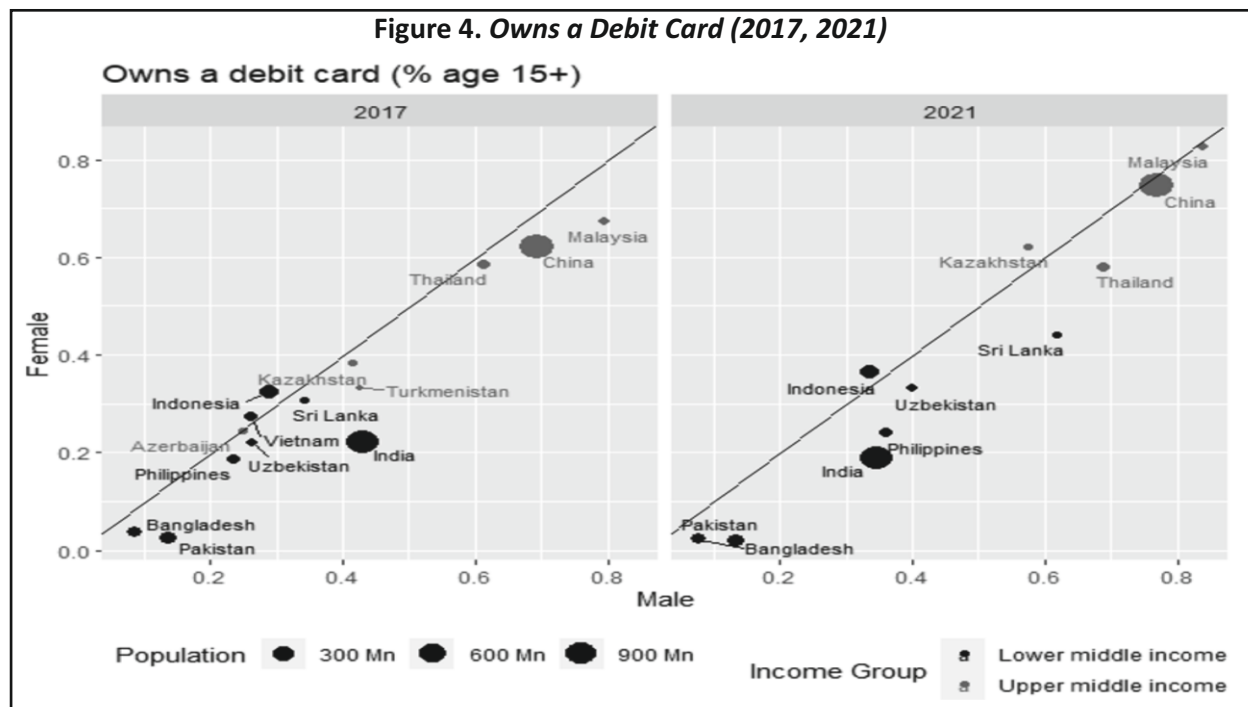
Stylized Facts : Financial Empowerment of Women in Asia

To understand the gender gap in access and usage of financial products and services in Asian economies, the Global Findex Database (2017, 2021) is employed by Demirgüç-Kunt et al. (2018, 2022). The data on account ownership, owning a debit card, saving any money, borrowing any money, and making or receiving digital payments are collected for both men and women. Scatter plots are constructed for each variable (Figures 3 to 7). In the scatter plot, each figure features a 45-degree line where the variable's values for men and women are equal. The variable outcome is better for the y-axis gender (female) than the x-axis gender (male), according to the scatter points above the line. Moreover, the scatter points are grayscale-coded according to the income group of the country and size-coded according to the population. Such exploratory analysis of data can facilitate discerning the following.

- ↳ The improvement or deterioration in the variable outcome between 2017 and 2021 can be easily gauged.
- ↳ The 45-degree line helps us easily identify the countries with better performance in women's FI. Moreover, the movement of points above (or below) the line for a particular country signifies improvement (or deterioration) in this area.
- ↳ The grayscale coding of scatter points according to income group helps identify whether a particular set of countries is performing better than the others in a specific variable.

Figure 3 illustrates the share of adults (over 15 years of age) with account ownership in 2017 and 2021. Between 2017 and 2021, the gender gap decreased overall, as the scatter points for countries like Kazakhstan,





Thailand, Sri Lanka, China, and India moved up significantly. The upper-middle-income (UMI) countries have fared better than the lower-middle-income (LMI) countries.

Figure 4 presents the share of adults (age 15+) who owned a debit card in 2017 and 2021. The gender gaps in this variable appear to be persistent, with most of the countries lying below the 45-degree line. However, the overall improvement in the index for men and women between 2017 and 2021 is observed in Sri Lanka, China, Malaysia, and Uzbekistan. The UMI countries have significantly higher levels than the LMI countries.

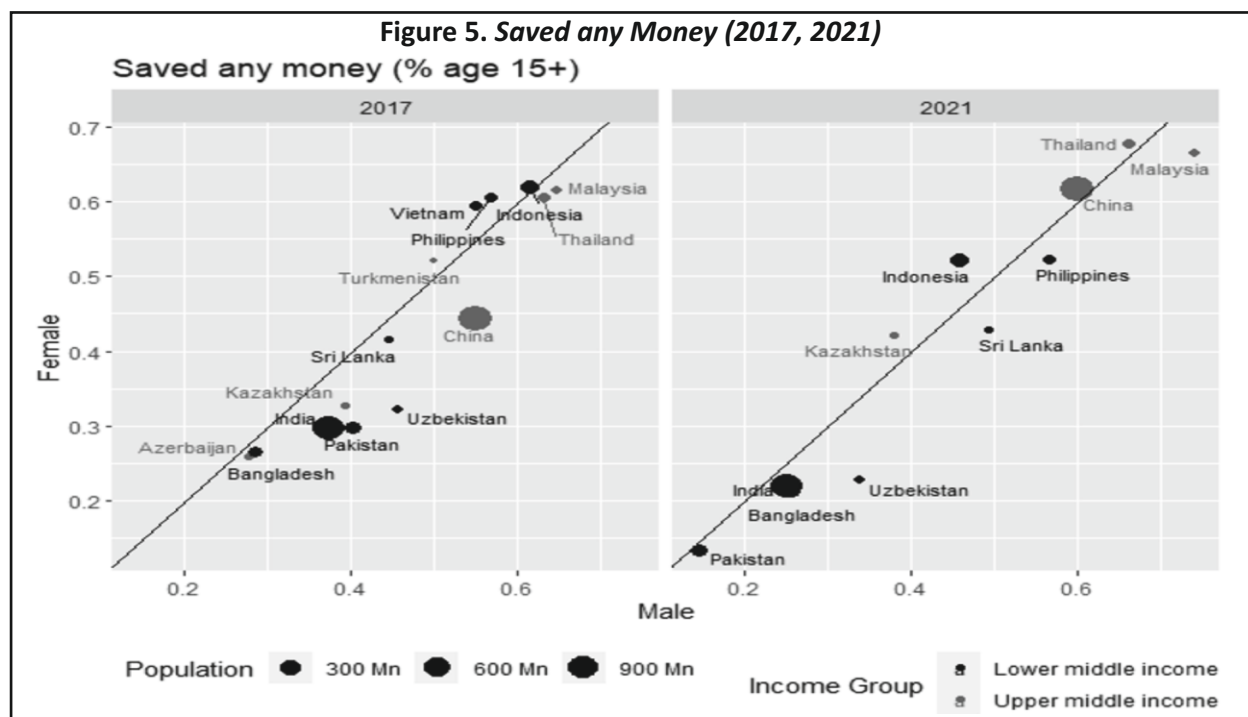
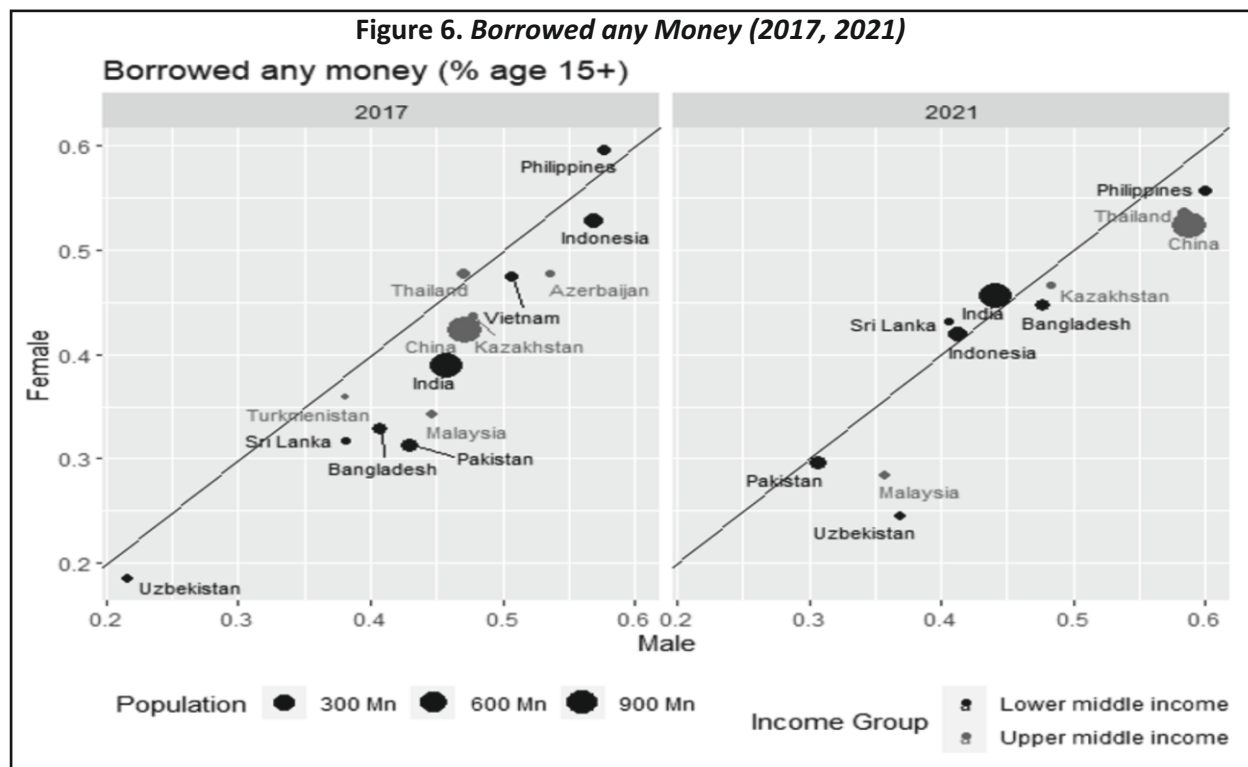


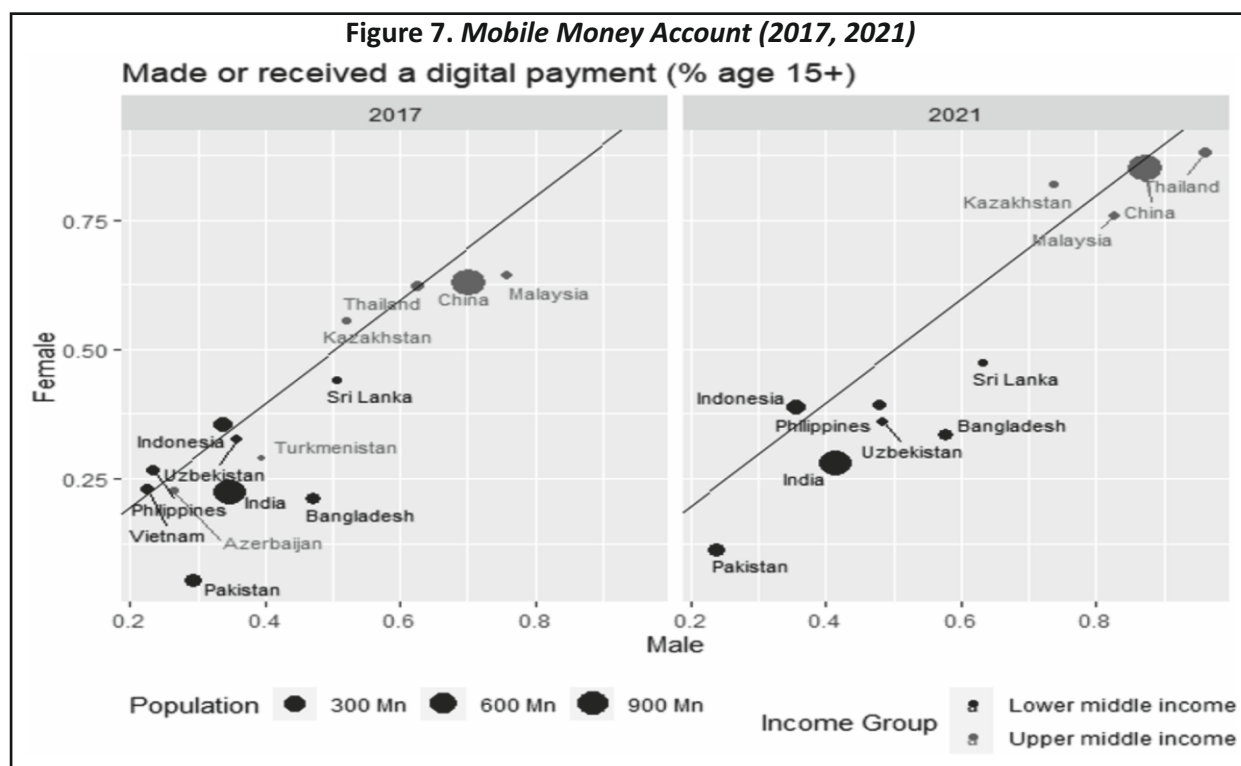
Figure 5 shows the share of adults (age 15+) who saved any money with a financial institution in 2017 and 2021. Countries had high levels of gender gap for this variable in 2017, and the situation will not improve much in 2021, except for countries like Kazakhstan, Thailand, and China. It is strikingly clear in the figure that the divergence between UMI and LMI countries has increased in the case of this measure of FI, as LMI countries' scatter points are clustered in the bottom left. In contrast, UMI countries' scatter plots are clustered in the top right of the 2021 panel.

Figure 6 shows the share of adults (age 15+) who borrowed any money in 2017 and 2021. In 2017, except Thailand and the Philippines, all countries showed a higher share of men compared to women, indicating a gender gap for women. However, the statistics improved in 2021, with countries like India, Indonesia, and Sri Lanka having a higher share of women borrowing money than men. Overall, there is a reduction in gender gaps for both sets of countries from 2017 to 2021.

Figure 7 illustrates the digital usage of financial services among men and women in 2017 and 2021, proxied by the percentage of adults (age 15+) who made or received digital payments. In 2017, the share of adults using digital financial services was low for both men and women in LMI countries, while UMI countries fared better. However, gender gaps were present in both sets of countries in 2017. In 2021, the overall level of the measure has improved for both UMI and LMI countries, but the gender gaps are still persistent. The panel for 2021 clearly shows the stark divergence in the performance of UMI and LMI countries.

Between 2017 and 2021, there has been a discernible reduction in the gender gap in account ownership, borrowings, and digital payment methods. However, certain disparities persist, particularly concerning debit card ownership and savings across various countries, irrespective of their income classifications. Notably, Pakistan and Uzbekistan are identified as necessitating substantial progress in enhancing financial access for women to align with the advancements observed in other Asian economies. Moreover, a notable performance gap exists between UMI and LMI countries, with the former demonstrating more significant strides in closing gender disparities and improving access to financial services for both genders.





Nexus Between Gender Mainstreaming and Financial Inclusion

In this section, the co-movement between the variables pertaining to gender mainstreaming, including employment, entrepreneurship, and participation in public life, and the concept of financial inclusion is analyzed. To gain insights into the extent of FI among women, the previously discussed indicators are combined into an index through PCA. A scatter plot showing the relationship between the variables is included in each of the graphical representations in this analysis (Figures 8 to 13), along with a line of fit to determine if the correlation between the variables shows a positive or negative trend. As the variables on both axes are standardized, the scatter points show the relative positioning of the countries, and the absolute values are not analyzed. This methodological approach seeks a nuanced understanding of the interplay between gender mainstreaming variables and FI.

Women's Employment and Financial Inclusion

Figure 8 shows a positive association between the FI index for women and their labor force participation rate. UMI countries have a better position relative to LMI countries. The positive association implies that countries with a high FI index for women would have a higher women's labor force participation rate.

Figures 9 and 10 check the association of women's FI with employment in agriculture and services, respectively. This disaggregated analysis based on employment sectors would facilitate a better understanding of the effect of increased financial access to women on their occupational patterns.

Figure 9 shows a negative co-movement between women's FI index and women's employment in agriculture. This implies that a low FI index for women is associated with low-skill employment in Asian economies, primarily in the agriculture sector. The scatter points for UMI countries are concentrated in the bottom right corner of the graph, suggesting that FI for women is high in these economies. However, their participation in the

Figure 8. Financial Inclusion and Women LFPR (2021)

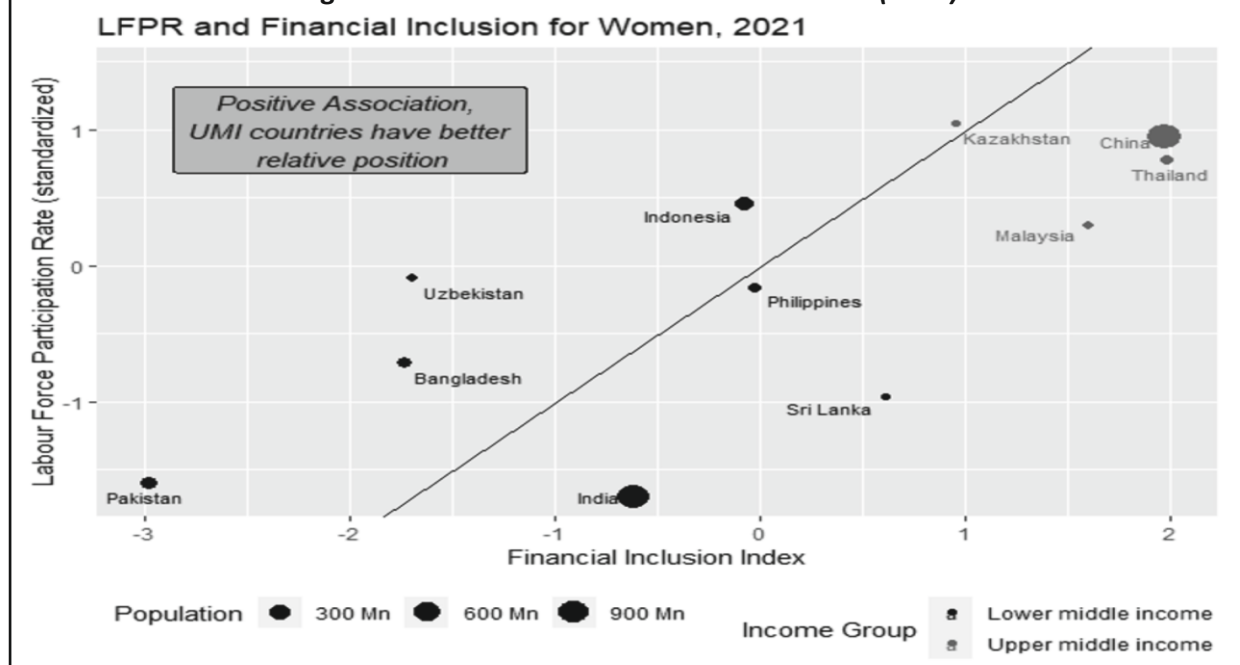
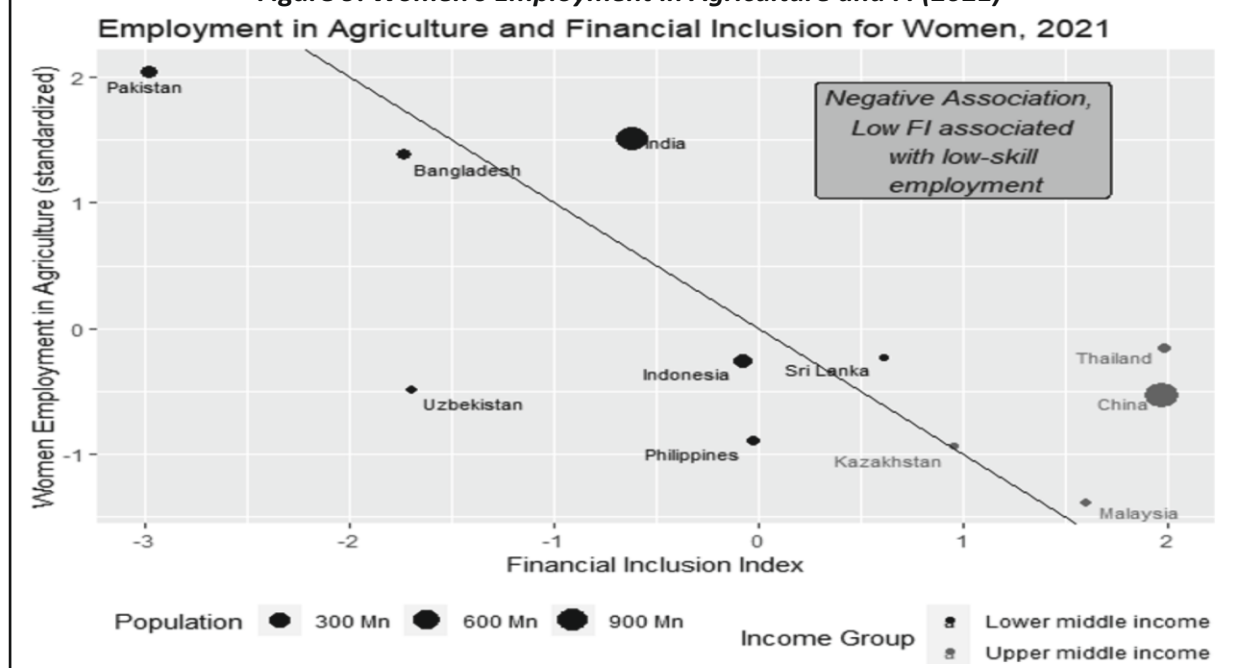
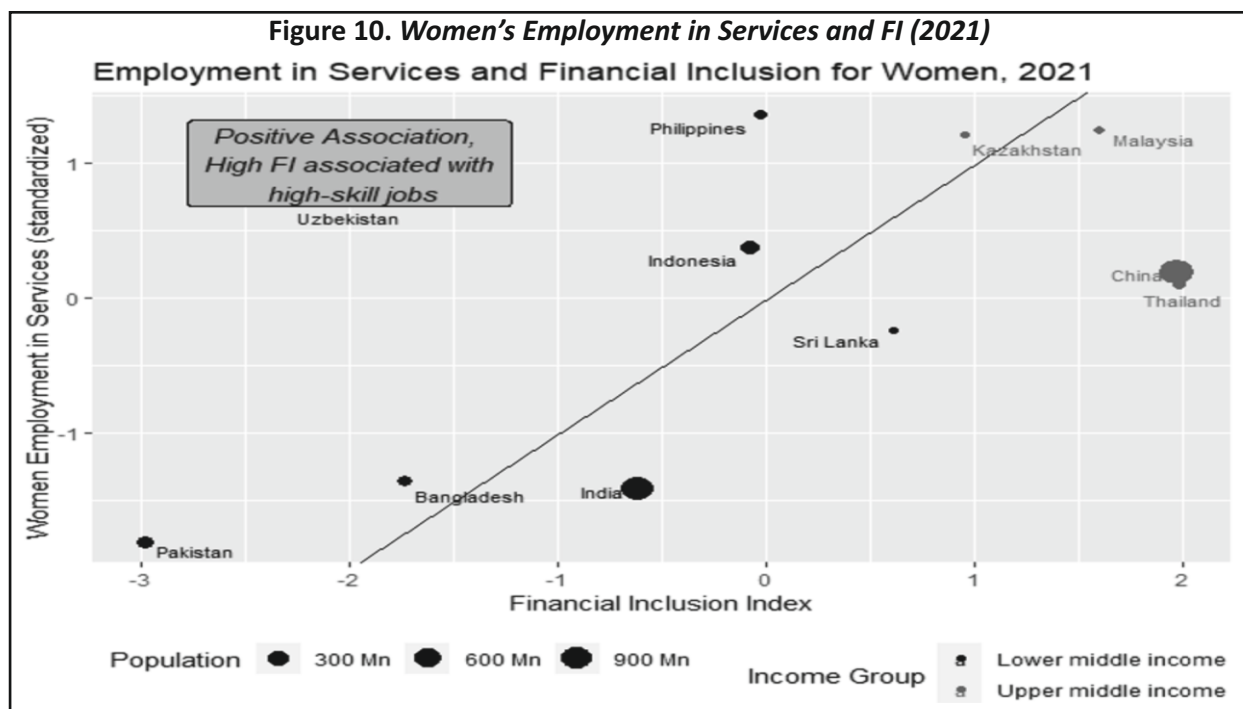


Figure 9. Women's Employment in Agriculture and FI (2021)



agriculture sector is comparatively lesser than that of the LMI economies. Among LMI economies, Pakistan is at the top for women's employment in agriculture, but the FI index is the lowest.

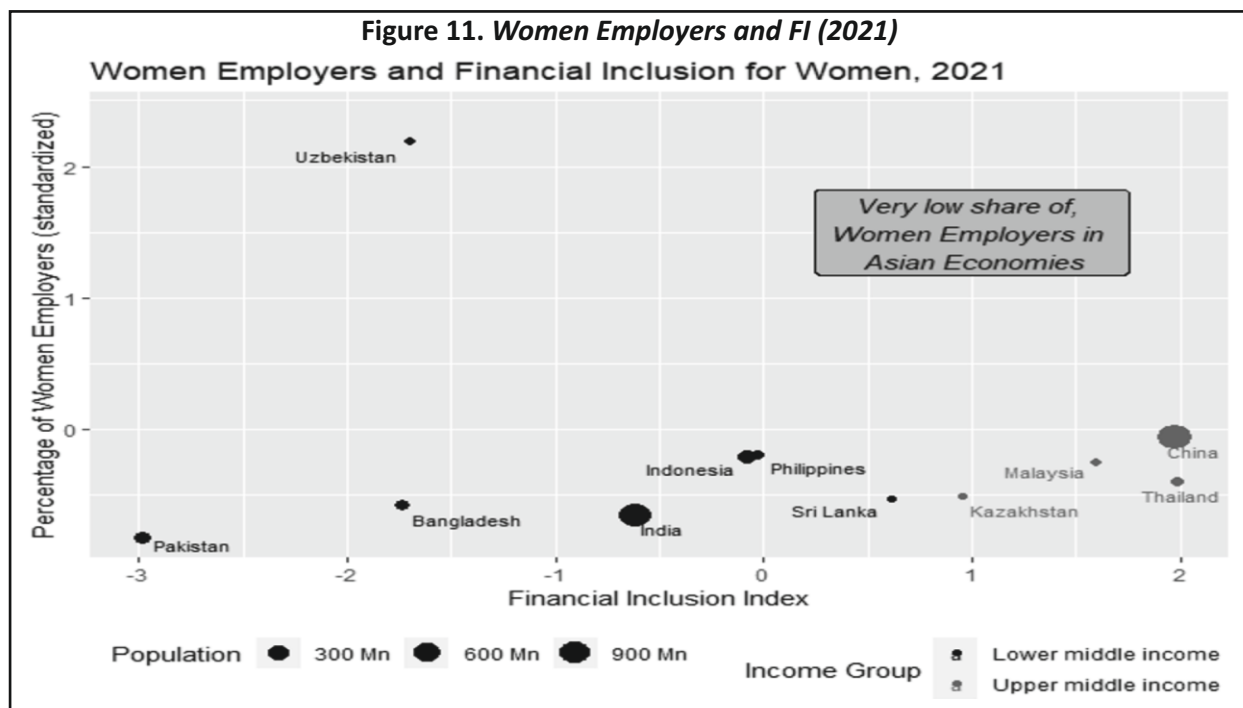
The service sector conventionally relates to semi-skilled and high-skilled employment. Figure 10 shows a positive association between employment in services and FI for women, implying that a high FI level in countries is associated with women in high-skill jobs. The UMI economies are doing better than LMI economies in engaging women in the service sector, along with a high level of FI. The Philippines is an outlier among the LMI

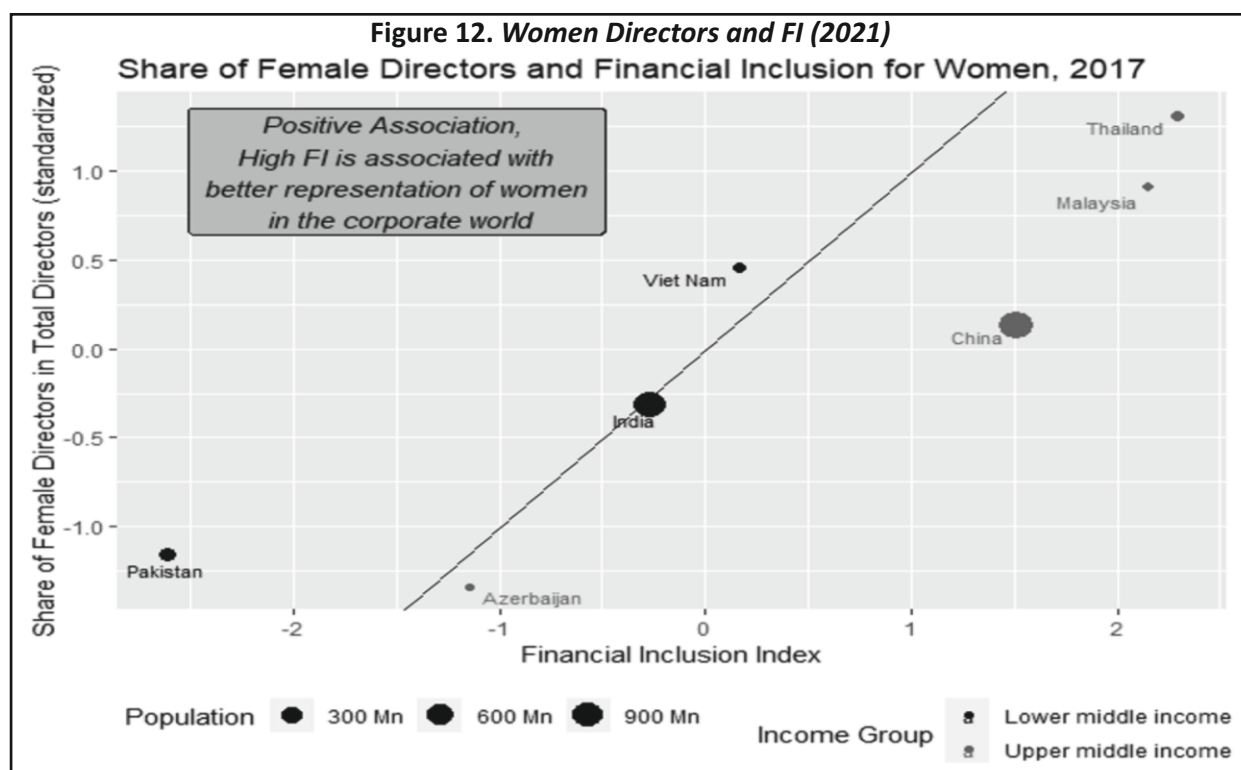


economies as it fares well in terms of women's employment in services. Pakistan, Bangladesh, and India need to catch up with the economies with low levels of FI index and low participation of women in services.

Women Entrepreneurship and Financial Inclusion

The study examines the connection between women's entrepreneurship and FI using gender mainstreaming





indicators such as the percentage of female directors and female employers. Figure 11 shows the association between women's employers and the FI of women in Asia for 2021. All the countries (except Uzbekistan) have a significantly low percentage of women employers in the economy, and therefore, the points are scattered at the bottom of the graph. The scatter points for UMI economies are ahead of those of LMI in the FI of women.

The second indicator of women entrepreneurship is the share of women directors in the economy. The data are scarce for this indicator, but based on the evidence available in Figure 12, there is a positive association between the share of female directors and FI for women. This suggests that the greater presence of women in the corporate sector is linked to increased FI among women.

Women's Participation in Public Life and Financial Inclusion

The study examines data on the percentage of female seats in national parliaments for Asian economies in 2021 in order to comprehend how FI affects women's involvement in public life. As evident in Figure 13, no clear negative or positive pattern emerges between the variables. The participation of women in politics does not seem to be directly associated with financial empowerment.

Table 2 presents the correlation coefficients between the gender mainstreaming variables and the FI index for women. The results are in accordance with the associations and co-movements observed in the figures. The women's LFPR has a strong positive correlation with FI. The correlation direction differs according to the employment sector, with employment in agriculture having a significant and high level of negative correlation. In contrast, employment in services has a significant and high positive correlation.

The correlation coefficient between women's employers and FI for women is insignificant, while the share of women directors has a positive correlation. For public life participation, the correlation coefficient is not significant. For the variables with no significant correlation, a larger set of data should be analyzed to get the inferences.

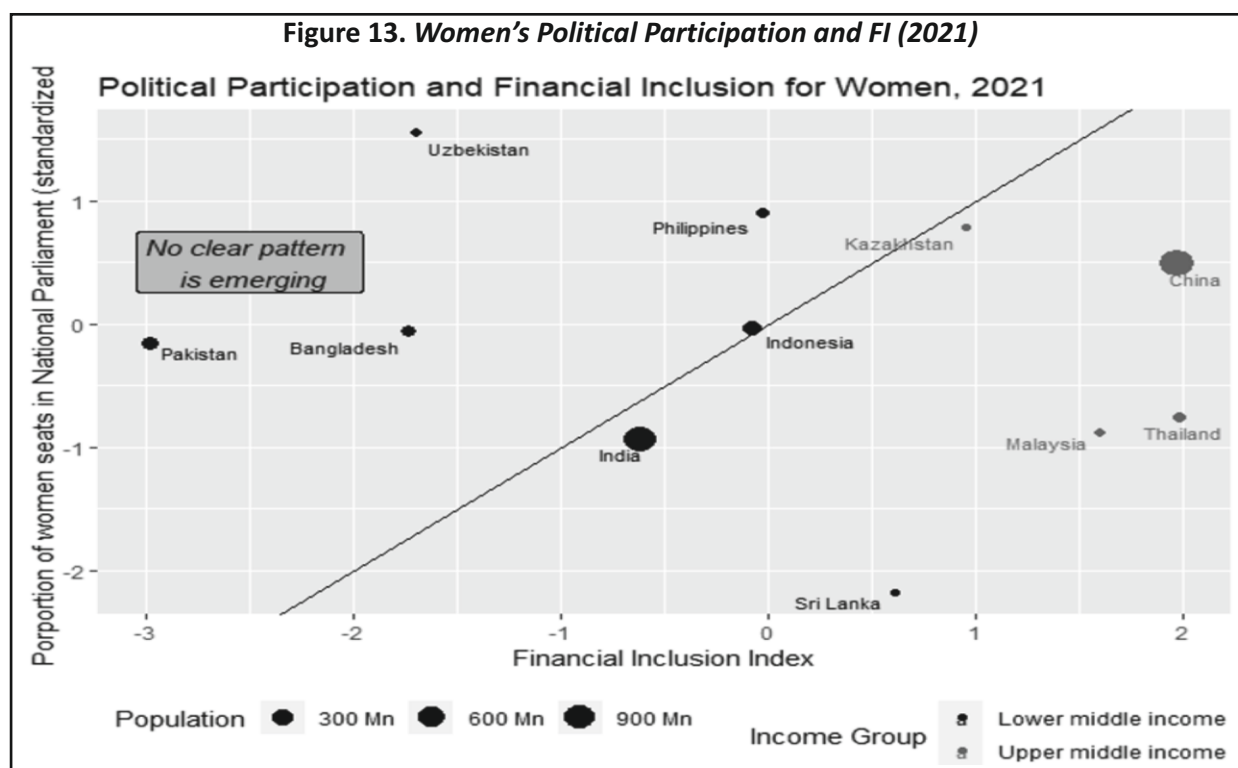


Table 2. Correlation Analysis

Correlation Matrix	
Gender Mainstreaming Variable	Women Financial Inclusion Index
Labor Force Participation Rate	0.568***
Employment in Agriculture	-0.67***
Employment in Services	0.534***
Women Employers	-0.146
Women Director	0.404#
Political Participation	-0.234

Note. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, # $p < 0.2$

Discussion of Challenges and Opportunities

The data analysis reveals insights into the relationship between FI and socioeconomic indicators impacting women. There is a positive correlation between the FI index and the participation of women in the labor force, particularly in their participation within the services sector. In contrast, a negative correlation emerges with regard to agricultural employment. This suggests that improved access and usage of financial services can facilitate a transition toward more economically dynamic sectors for women, thereby enhancing their earning and employment prospects. Moreover, within entrepreneurship, the presence of female directors within businesses shows a positive association with the level of FI, indicating how better inclusion of women in the financial system can foster an environment conducive to female leadership and entrepreneurship.

The analysis also highlights a significant gap in the proportion of women employers, making the inferences regarding their role in FI dynamics inconclusive. Despite these complexities, the data offers a clear understanding of the impact of FI on women's socioeconomic outcomes. Moreover, while outcomes related to participation in

public life exhibit variability across countries, the overall trend suggests a positive association between FI and women's empowerment. Thus, there is potential for promoting gender mainstreaming initiatives in Asia through targeted and tailored efforts to enhance women's financial empowerment.

Challenges to the Financial Empowerment of Women

Many challenges hinder the full participation of women in the financial system of an economy. One significant obstacle identified by the Alliance for Financial Inclusion (2022) is the need for a standardized definition of financial inclusion in many economies. The absence of standardized nomenclature complicates the efforts to develop targeted policies and initiatives to expand women's access to financial services. The Alliance for Financial Inclusion (2022) evaluated 63 economies, and 28 of them lacked a formal definition of FI. Moreover, the scarcity of comprehensive and sex-disaggregated data on women's financial access and usage presents a substantial barrier, preventing the government from devising and monitoring the policies targeted at women and restricting businesses from effectively catering to women as a distinct market for financial products and services. Furthermore, the persistent gender gap in financial and digital literacy exacerbates the issue, with women globally lagging behind men in financial literacy rates, particularly in the developing countries of Asia.

In Asian economies, entrenched cultural and social norms often confine women to the traditional roles as homemakers and caregivers and into the jobs stereotyped to be women-centric, significantly hampering their participation in the financial decision-making processes of the household. Additionally, lack of asset ownership and stringent collateral requirements create difficulties in accessing credit for women.

Channels for Gender Mainstreaming Through Financial Empowerment

The channels for gender mainstreaming through FI represent the pathways toward empowering women economically and socially.

↳ *Enhanced access to finance* elevates the decision-making power of women in crucial matters such as healthcare and education for both themselves and their children.

↳ *Improved access to credit* creates opportunities to pursue higher education, hone their skill sets, and facilitate entrepreneurial and self-employment ventures. This, in turn, can contribute to the overall economic empowerment of women and foster gender equality in the business landscape of the economy.

↳ *Promoting financial digital literacy* among women can be crucial for bridging the digital divide and facilitating their participation in e-governance programs initiated by the governments. Understanding the various digital platforms can significantly enhance their employability in the job market.

Through the channels discussed, FI can emerge as a powerful tool for advancing gender mainstreaming in society.

Conclusion and Policy Recommendations

In conclusion, gender mainstreaming in Asia, along with its multiple dimensions of employment, entrepreneurship, participation in public life, etc, remains unattainable as long as women continue to face financial exclusion. The achievement of this goal can be fast-tracked with better financial empowerment for women and the closing of gender gaps among its various aspects.

Based on the analysis, the following policy prescriptions can be recommended to foster gender mainstreaming in Asia.

⇒ **Strengthening the Collection and Availability of High-Quality Sex-Disaggregated Data** : Policymakers can learn more about inequities and create focused measures to close them by breaking down data by gender and making it more transparent in both access and use.

⇒ **Enable Better Demand-Side Research and Supply-Side Analysis for Women's Financial Inclusion** : Demand-side research involves understanding the needs, preferences, and constraints of women regarding financial services through surveys, focus groups, and other qualitative methods. However, supply-side analysis focuses on evaluating the accessibility, affordability, and suitability of financial products and services offered by financial institutions. By integrating the insights obtained from both sides of the data, policymakers can develop comprehensive strategies to address barriers to women's FI and make financial products and services more gender-responsive.

⇒ **Encourage Tailor-Made Policies to Cater to Women of Different Cultural and Social Backgrounds in Asia** : This involves engaging with people, communities, and various stakeholders to understand the sociocultural norms, preferences, customs, and constraints that influence women's access to and usage of financial services in the Asian economies. Tailor-made policies in this regard may include initiatives such as culturally sensitive financial education programs, outreach campaigns, information-education-communication programs, and innovative delivery channels that connect with women from diverse backgrounds.

⇒ **Improve Financial and Digital Literacy Among Women to Close Gender Gaps in the Fast-Evolving Digital Ecosystem** : Financial literacy programs enable women to make informed financial decisions and manage financial resources efficiently (Vijaykumar & Naidu, 2018). Furthermore, programs that promote digital literacy give women the digital skills they need to access and use online resources, e-governance platforms, and digital financial services. In order to enable women to use digital technology for FI, policymakers should fund focused education and training initiatives. Women can, therefore, increase their involvement in the financial ecosystem by actively participating in the digital ecosystem.

Theoretical Implications

The findings of this paper offer significant theoretical implications for understanding the relationship between FI among women and their labor force participation. The results provide evidence that improvement in FI outcomes for women not only boosts their participation in the labor market but also shifts the pattern of employment from agriculture to the service sector. This indicates that structural changes can occur in an economy as women get better access to financial resources. They can pursue more diverse and higher-value employment opportunities with financial empowerment and break the traditional employment barriers of gender segregation and stereotyping. This result opens up new avenues for exploring the theoretical underpinnings of this structural shift.

Limitations of the Study and Scope for Future Research

The findings of the study provide indicative evidence of the existing gender gap in financial access and usage across Asian economies and its ramifications on women's participation in society at various levels. However, there are a few limitations to the study. First, the study can be strengthened by employing estimation techniques for causal inference to understand the relationship between financial empowerment and gender mainstreaming. Second, the absence of continuous time series data on FI measures, along with the lack of sex-disaggregated data for some of the parameters, limits the depth and coverage of the analysis. Finally, the unavailability of comparable datasets across countries and regions prevents the study from conducting a robustness check for its findings. These limitations highlight the need for more comprehensive data collection and methodological approaches in this area of study.

Future research should aim to examine the gaps in FI among women across multiple dimensions, such as access, usage, digitalization, and financial resilience. A more disaggregated analysis of these factors based on social norms, occupational structure etc, would provide deeper insights into the challenges faced by women in accessing finance. This, in turn, would help inform and guide more targeted, tailored policy interventions to address the unique needs and barriers affecting women's financial empowerment.

Authors' Contribution

Prof. Seema Mehra Parihar conceived the idea and Dr. Neha Verma developed qualitative and quantitative designs to undertake the empirical study. Dr. Neha Verma and Dr. Pratibha Madan extracted research papers with high repute, filtered these based on keywords, and generated concepts and codes relevant to the study design. Prof. Seema Mehra Parihar verified the analytical methods and supervised the study. Dr. Neha Verma collected the data for estimation, and Prof. Seema Mehra Parihar and Dr. Neha Verma made the charts. Dr. Neha Verma wrote the manuscript in consultation with both the authors.

Conflict of Interest

The authors declare no potential conflicts of interest with respect to the research, authorship, and publication of this article. No financial support has been received for this.

Funding Acknowledgment

The authors received no financial support for the research, authorship, and/or publication of this article.

Acknowledgment

We acknowledge the academic support provided by SEED, Department of Science and Technology, Government of India, for this paper under the project titled “Zonal Implementation and Utilization of Women Empowerment Atlas of India: Capacity Building with a Science & Technology Perspective.” An earlier version of the paper was presented at the “The Rise of Asia in Global History and Perspective” conference organized by the University of Paris and the University of Le Havre in Paris on February 23, 2024. The authors thank the participants for their comments on the paper.

References

- Adera, A., & Abdisa, L. T. (2023). Financial inclusion and women's economic empowerment: Evidence from Ethiopia. *Cogent Economics & Finance*, 11(2), Article ID 2244864. <https://doi.org/10.1080/23322039.2023.2244864>
- Arshad, A. (2023). Nexus between financial inclusion and women empowerment: Evidence from developing countries. *Gender in Management: An International Journal*, 38(4), 561–580. <https://doi.org/10.1108/GM-04-2022-0125>
- Aslan, G. (2022). Enhancing youth and women's financial inclusion in South Asia. *Cogent Economics & Finance*, 10(1), Article ID 2136237. <https://doi.org/10.1080/23322039.2022.2136237>

- Aziz, F., Sheikh, S. M., & Shah, I. H. (2022). Financial inclusion for women empowerment in South Asian countries. *Journal of Financial Regulation and Compliance*, 30(4), 489–502. <https://doi.org/10.1108/JFRC-11-2021-0092>
- Banerjee, A. V., & Newman, A. F. (1993). Occupational choice and the process of development. *Journal of Political Economy*, 101(2), 274–298. <https://doi.org/10.1086/261876>
- Bhatia, S., & Singh, S. (2019). Empowering women through financial inclusion: A study of urban slum. *Vikalpa*, 44(4), 182–197. <https://doi.org/10.1177/0256090919897809>
- Buera, F. J., Kaboski, J. P., & Shin, Y. (2021). The macroeconomics of microfinance. *The Review of Economic Studies*, 88(1), 126–161. <https://doi.org/10.1093/restud/rdaa047>
- Burgess, R., Pande, R., & Wong, G. (2005). Banking for the poor: Evidence from India. *Journal of the European Economic Association*, 3(2–3), 268–278. <https://doi.org/10.1162/jeea.2005.3.2-3.268>
- Cabeza-García, L., Del Brio, E. B., & Oscanoa-Victorio, M. L. (2019). Female financial inclusion and its impacts on inclusive economic development. *Women's Studies International Forum*, 77, Article ID 102300. <https://doi.org/10.1016/j.wsif.2019.102300>
- Chettri, B., & Raju, G. R. (2014). Financial sector development and economic growth in an open economy framework: India's experience. *Arthshastra Indian Journal of Economics & Research*, 3(4), 32–40. <https://doi.org/10.17010/aijer/2014/v3i4/55985>
- Clarke, G. R., Xu, L. C., & Zou, H.-F. (2006). Finance and income inequality: What do the data tell us? *Southern Economic Journal*, 72(3), 578–596. <https://doi.org/10.1002/j.2325-8012.2006.tb00721.x>
- Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). *Global finindex database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19*. World Bank Group. <https://doi.org/10.1596/978-1-4648-1897-4>
- Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The global finindex database 2017 [la base de datos global finindex 2017]* (Report No. 126033). The World Bank Group, The World Region.
- Dua, P., Goel, D., Kumar, N., & Verma, N. (2023). *Reducing financial inclusion gaps: A policy roadmap for developing economies*. India's G20 Presidency. https://www.ies.gov.in/pdfs/T20_TF1_Reducing-the-Financial-Inclusion-Gaps.pdf
- Dupas, P., & Robinson, J. (2013). Savings constraints and microenterprise development: Evidence from a field experiment in Kenya. *American Economic Journal: Applied Economics*, 5(1), 163–192. <https://doi.org/10.1257/app.5.1.163>
- Fareed, F., Gabriel, M., Lenain, P., & Reynaud, J. (2017). *Financial inclusion and women entrepreneurship: Evidence from Mexico* (OECD Economics Department Working Papers No. 1411). OECD Publishing. <https://doi.org/10.1787/18151973>
- Feenstra, R. C., Inklaar, R., & Timmer, M. P. (2015). The next generation of the Penn World Table. *American Economic Review*, 105(10), 3150–3182. <https://doi.org/10.1257/aer.20130954>
- Ghosh, C., & Chaudhury, R. H. (2019). Gender gap in case of financial inclusion: An empirical analysis in Indian context. *Economics Bulletin*, 39(4), 2615–2630.
- Ghosh, S., & Vinod, D. (2017). What constrains financial inclusion for women? Evidence from Indian microdata. *World Development*, 92, 60–81. <https://doi.org/10.1016/j.worlddev.2016.11.011>

- Maruta, A. A., Edjigu, H. T., & Kassa, W. (2023). Does financial inclusion empower women in Africa? *Economic Notes*, 52(3), Article ID e12226. <https://doi.org/10.1111/ecno.12226>
- Moghadam, H. E., & Karami, A. (2023). Financial inclusion through FinTech and women's financial empowerment. *International Journal of Social Economics*, 50(8), 1038–1059. <https://doi.org/10.1108/IJSE-04-2022-0246>
- Pal, M., Gupta, H., & Joshi, Y. C. (2022). Social and economic empowerment of women through financial inclusion: Empirical evidence from India. *Equality, Diversity and Inclusion: An International Journal*, 41(2), 294–305. <https://doi.org/10.1108/EDI-04-2021-0113>
- Patel, R., & Patel, N. (2020). Impact of microfinance on women empowerment: A study from the decision - making perspectives. *Indian Journal of Finance*, 14(8–9), 52–68. <https://doi.org/10.17010/ijf/2020/v14i8-9/154948>
- Rangarajan, C. (2008). *Report of the committee on financial inclusion*. The Government of India.
- Sarma, M. (2016). Measuring financial inclusion for Asian economies. In S. Gopalan, & T. Kikuchi (eds.), *Financial inclusion in Asia: Issues and policy concerns* (pp. 3–34). Springer. https://doi.org/10.1057/978-1-137-58337-6_1
- Singh, D., & Stakic, N. (2021). Financial inclusion and economic growth nexus: Evidence from SAARC countries. *South Asia Research*, 41(2), 238–258. <https://doi.org/10.1177/0262728020964605>
- Tandon, P., & Singh, A. B. (2021). Antecedents and extent of financial inclusion: A cross-sectional study. *Indian Journal of Finance*, 15(3), 50–67. <https://doi.org/10.17010/ijf/2021/v15i3/158129>
- Thakur, S. (2022). Pradhan Mantri Jan Dhan Yojana (PMJDY): Analyzing performance using financial inclusion indicators. *Arthshastra Indian Journal of Economics & Research*, 11(2), 33–46. <https://doi.org/10.17010/aijer/2022/v11i2/172211>
- Vijaykumar, N. V., & Naidu, G. J. (2018). Microfinance training: A magic wand to achieve financial literacy. *Arthshastra Indian Journal of Economics & Research*, 7(2), 38–49. <https://doi.org/10.17010/aijer/2018/v7i2/125144>

About the Authors

Prof. Seema Mehra Parihar teaches at the Department of Geography at Kirori Mal College and is a Fellow at the Delhi School of Public Health (DSPH), Institute of Eminence (IoE), University of Delhi. She has worked intensively on missing gender-disaggregated data in India and has geo-visualized it in three Gender Atlases. Her expertise includes natural resource management, gender and space, GIS and remote sensing, and health and wellness. She has also been a Principal Investigator/Project Director of 17 research projects sanctioned by national and international funding agencies, including WCD, GoI, DST, GoI, WHO, UGC, ICSSR, etc. She has spoken at 175 plus national and international programs.

Dr. Neha Verma is an Associate Professor at the Department of Economics, Kirori Mal College, University of Delhi, Delhi. She has been teaching at the University of Delhi for the past 15 years. Her research areas include International capital flows in emerging markets, trade and carbon emissions, financial inclusion, and gender mainstreaming. She has published papers in reputed international and national journals, contributed to policy briefs, and conducted various workshops on data analysis using statistical packages like EViews and R. She teaches statistical methods for Economics and the Indian economy.

Dr. Pratibha Madan is an Associate Professor at the Department of Economics, Kirori Mal College, University of Delhi, Delhi. She has been teaching at the University of Delhi since 2010. Her Ph.D. work is on Malnutrition among women and children in India, and her research interests include development economics, women empowerment, gender studies, and foreign direct investment.