BRIDGING THE FINANCIAL INCLUSION AND DIGITALIZATION GENDER GAP IN DRIVING ECONOMIC AND SUSTAINABLE GROWTH

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Abstract

Financial inclusion and female participation in the financial system can avoid risk and better manage household expenditures in health and education. Women's access to banking services and holding their saving accounts can better control the resource allocations and make decisions. Thus, their participation in the financial system reduces inequality, increases social well-being, and improves a nation's economy. This study analyzes the influence of female financial inclusion, measured as access to digital banking services, on economic development. The time-series data 2011-17 has been collected from the published sources and databases like the Global Findex of World Data Bank. The study also carried out regression analysis to examine the influence of digitalization over the economic growth of the country. The results show a positive influence of access to bank account and digital services on economic development.

Keywords:*Economy, financial inclusion, banking services, digitization*

I. Introduction

Rising concern on the inequality of the benefits of economic growth has drawn the attention of the policymakers and researchers towards "inclusive growth" as a strategy of economic development. Inclusive growth ensures

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equal access to economic opportunities for all. This allows to accelerate growth and increased contribution of the people and receive benefits from the economy in the long run (Ozili, 2020; Patwardhan, 2018). Every government of a nation faces challenges to make the growth inclusive and frame policies towards sustainable growth. Policymakers frame strategies to maximize economic opportunities ensuing equal access and social wellbeing to all citizens of the country (Bharadwaj and Suri, 2020).

Government strategies in many countries have found financial inclusion as the key solution for social and economic empowerment and checking the rising levels of poverty. Financial inclusion is a strategical process to provide equal access to financial products and services at an affordable and fair cost to weaker sections (Goel and Madan, 2019; Hendriks, 2019). Major financial institutions and banks play a key role in providing access to the financial system to the poor and disadvantaged social groups and are expected to reduce the gap between demand and supply of financial services. Efficient and effective tools of the banking institutions on saving, lending, and transaction services can mitigate financial risks and can help people from setbacks and achieve greater financial stability over the long term. Financial inclusion is not limited to payments, savings, credits, and pension services. It implies the usage of a full spectrum of financial services. The ease of banking and financial services, efficient payment mechanism promotes thrift and develops the culture of savings, and strengthens the economic base of the people and the country. Thus, achieving financial inclusion is a key driver towards financial and economic stability (Ozili, 2018). It has become a mandatory strategy for policymakers today. According to CGAP, for every nation, it is important to provide their citizens easy access, and affordable usage of financial services. Migap et al. (2015) show that the government strategies have a greater impact on the increased population in the financial system and have improved in reducing the financial risks in the commercial banks. In developing countries like India, commercial banks play a key role of financial intermediaries in achieving financial inclusion (Bharadwaj and Suri, 2020).

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The advances in new technology, internet services have significantly transformed the financial landscape that offers transparent, efficient, and cost-effective tools like mobile banking, ATM, Debit/credits, NEFT, and RTGS transaction services (Mittal, 2020a). Availability, access, and use of banking services for financial transactions are the basic measures of financial inclusion (Melubo and Musau, 2020). Hadad and Bratianu (2019) study shows that increased use of digital transactions in banking and demands for improved services have led the commercials banks to focus on more efficient and transparent solutions. The reduced gap of physical distance between the bank and the customers is a significant factor to financial inclusion. Previous studies have used the availabilities of ATMs and the bank branches in a region to represent the bank availability construct of financial inclusion. Every government plan and prepares strategies to promote financial inclusions. Despite their many efforts towards inclusion, many emerging economies are failing to include women's full participation in utilizing financial services.

In the digital age, still, the community perceives women differently and have different expectations from their role. Man dominates the financial matters in the family and that the economic growth and status of women is determined by their husbands' position. This affects their independence and control over financial resources (Okoye et al., 2017). The situation becomes too worse in the case of single parents or widows. They feel incapable of engaging themselves in the economic activities of the household and thus lose control over the resources of necessary household items (Bhatia and Singh, 2019).

The female participation in business sectors, especially in small scale business ventures and access to the financial system, would drive women's economic empowerment and will provide them control over the financial matters. Therefore, digital banking services are highly important and appropriate in addressing this concern through adequate and affordable access to a wide range of financial products and services.

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The present study is an attempt to examine the recent development in women's financial inclusion in emerging economies and their influence over the economic empowerment of the country.

2. Literature Review

Previous studies have highlighted the need for financial literacy or education among the citizens to participate in financial inclusion (Bire et al., 2019; Koomson et al., 2020; Melubo and Musau, 2020; Singh and Srivastava, 2020). The basic financial literacy can make them able to make informed decisions, understand the savings culture, need of loans, and managing financial resources. Lyons and Kass-Hanna (2018) show a significant relationship between financial literacy and the level of financial inclusion. The study highlighted the improvement in the quality of life. Adetunji and David-West (2019) also show a positive influence of financial literacy over financial inclusion. The study suggests the policymakers to focus on education policy to improve the level of financial inclusion. Koomson et al. (2020) in the study analyzed cross-sectional data of countries to examine the impact of financial literacy on financial inclusion. The study used data across different income levels and subgroups within countries.

The advent of technology and financial innovations has drastically improved the accessibility of the financial system and increasing financial inclusion (Mittal, 2020b). The digital innovations have removed the infrastructural and geographical constraints to reach the extremely vulnerable groups(Bhatia and Mittal, 2019; Mittal, 2020c). Financial innovation includes the availability of new financial instruments, the availability of smart devices such as the use of smartphones for use in payment services, promoting savings at the household levels. Fintech companies are playing a key role in improving the number of internet users and the level of financial inclusion, especially women in Southeast Asia (Sumarsono et al., 2021).

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Kabakova and Plaksenkov (2018) examined the various factors of financial inclusion in emerging economies. The study highlighted the significance that socio-economic and political factors have a greater influence in developing countries. Turégano and Herrero (2018) analyzed the role of financial inclusion in bridging the gap of income inequality across countries. Despite female population (48.04 percent) constituting almost half the total population in India, there exist a difference in access to financial services between males and females. The male member in the household dominates and has control over the financial resources. Females are deprived of the opportunities to contribute in the financial matters that would help them improve income-generating activities (Yadav et al., 2018). The female participation in business sectors, especially entrepreneurship skills and access to the financial system, would drive the women's economic empowerment, and give them control over the financial resources. The studies have highlighted the importance of a higher level of education and income of women in increasing the levels of financial inclusion in a country (Bhatia and Singh, 2019; Hendriks, 2019). However, the previous research fails to determine the factors affecting sustainable financial inclusion, access to digital banking, and lack of involvement in decision-making by women in emerging countries. The present study attempts to bridge a knowledge gap and identify the role of women's participation in the financial activities to enhance financial inclusion in a country.

Methodology

We have used secondary data sources to examine the factors like ownership of bank or financial institution account, usage of internet to pay bills and online transactions, saved money for business, usage of debit and credit cards, etc., on financial inclusions and gender gaps in India. Presently, India is second most populous (1.38 billion) country in with world with diverse socio-cultural groups. We have collected data from Global Findex database of world bank, the world's most comprehensive data services on savings, borrowings, payment transacts of adult in age group of

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15+. The data is published every three years and the most recent data is available for 2011-17. The database shows that 515 million adults obtained an account in the year 2014 and which now has increased to 1.2 billion in 2017. In the emerging economies, the proportion of account holders increased from 54 to 63%. Still, there exist a gender gap in the emerging economies, which stood at a difference of 9% from number of male accounts.

Results

The increase in access to the financial system and usage of financial products and services to enhance the levels of financial inclusion is not new in India. More important is to examine the role of gender and women's challenges to access the financial services to have control on money for the household. The study attempts to analyze the trends in various factors of financial inclusion on males and females to understand the lack of sex-disaggregated demand-side data on FI. Table 1 shows the percentage of accounts in the age group 15+ for males 44%, 63%, and 83% in 2011, 2014, and 2017, respectively. The data shows a gender gap of around 6% in the proportion of account holders in 2017. However, this gap has been reduced from 18% (2011) to 6% (2017). Financial institution accounts also show a gap of 3% in the male and female groups. In many low-middle-income countries use of debit and credit cards for purchase at the counters is an important medium of digital transactions. However, we find only 43% (Male) and 22% (female) holding the debit cards, a gap of almost 21%.

Table 1: Trend in Financial Inclusion Gender Gap in India (2011-17)

Factors	Gender	2011	2014	2017	Gender gap	% Change 2014-17
Account (%)	Male	44%	63%	83%		20%
	Female	26%	43%	77%	-6%	34%
Financial institution	Male	35%	53%	80%		27%
	Female	26%	43%	77%	-3%	34%

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account (%)						
Used the Internet to pay the bills	Male	-	-	3%		3%
	Female	-	-	2%	-1%	2%
Used the digital mode to pay bills online	Male	-	2%	5%		3%
	Female	-	0%	3%	-2%	3%
Saved to start, operate business (%)	Male	-	10%	12%		2%
	Female	-	4%	7%	-5%	4%
Saved at a financial institution (%)	Male	16%	18%	22%		4%
	Female	7%	10%	17%	-6%	7%
Saved outside the family or in a club	Male	4%	9%	8%		-1%
	Female	2%	9%	9%	1%	0%
Debit card ownership (%)	Male	12%	32%	43%		10%
	Female	5%	11%	22%	-21%	11%
Used internet on mobile phone to	Male			7%		7%
	Female			4%	-3%	4%

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access an account (%)						
Credit card ownership (%)	Male	2%	7%	4%		-3%
	Female	1%	2%	2%	-1%	1%
Made or received digital payments in the past year (%)	Male		27%	35%		7%
	Female		11%	22%	-12%	11%
Mobile money account (%)	Male		3%	3%		0%
	Female		1%	1%	-2%	0%

Source: Global Findex database (2017)

In simple terms, using a mobile phone can allow an access to mobile money accounts and other applications related to financial transactions. Having access to the internet as well expands the possibilities. However, the Global Findex data suggest a very low usage of mobile money account 3% (male) and 1% (female). The data show that financial institutions come forward with long-term planning to overcome the barriers for unbanked adults, especially women, that prevent accessing financial services.

Regression Analysis

To examine the influence of the number of bank branches (BANKS), Internet usage by individuals total % of the population (INTUSAGE), mobile subscribers (MSUB), no. of outstanding debit (DC) and credit cards (CC), no. of onsite ATMs (ATM) on the gross domestic product (GDP) per capita,

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the present study has carried out the following regression analysis over the period of 2010-19. The logarithmic transformation has been done on each independent variable to obtain a more normalized data set.

$$\text{LN(GDP)} = \beta_0 + \beta_1 * LN(BANKS) + \beta_2 * LN(INTUSAGE) + \beta_3 * LN(MSUB) + \beta_4 * LN(CC) + \beta_5 * LN(CC) + \beta_6 * LN(ATM)$$

Table 2: Results of Regression Analysis

IVs	Coefficients	Standard Error	t Stat	P-value	Remarks
Intercept	-6.5201	1.2565	-5.1890	0.0352	Significant p<0.05
BANKS	0.9646	0.1722	5.6028	0.0304	Significant p<0.05
INTUSAGE	0.0023	0.0045	-0.5220	0.6537	Insignificant
MSUB	0.0874	0.0229	3.8187	0.0622	Significant p<0.1
CC	0.1584	0.0067	23.4820	0.0018	Significant p<0.01
DC	0.0525	0.0131	4.0143	0.0568	Significant p<0.1
ATM	-0.0999	0.0354	-2.8188	0.1062	Insignificant

The results show that increase in the number of banks, debit and credit cards; mobile subscribers are having a significant positive influence over the gross domestic product, which is a measure of economic growth of the country. Internet usage and the number of ATMs have shown insignificant influence over GDP. It can be argued that internet penetrations have not increased prior to the year 2016 and thus have an insignificant role in GDP over 2010-19. The result is consistent with the studies by Counted and Arawole (2015) and Yoon (2020), who demonstrate that despite investment efforts in Internet and ICTs, the country cannot achieve the expected economic prosperity because of a persistent digital divide and digital skills shortages to the individuals.

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Conclusions

The findings from the analysis of Global Findex data suggest the policymakers create a long-term strategy for comfortable access to financial services, especially for women. They need to create a friendly environment and overcome the traditional barriers for women that prevent them from using digital services. Internet education and the knowledge of financial services can improve to reduce the gap between financial institutions and women customers. The study findings have also highlighted that the persistent digital divide and digital skills shortages (internet usage) in a country, despite investment efforts, cannot fulfill the expected economic development.

Financial institutions can also offer low-cost services to low-income households and encourage them to use technology like a smartphone, social networks, and artificial intelligence. The increase in the number of volumes of transactions and the self-automated process can reduce the increased burden of cost on the users.

References

1. Adetunji, O.M. and David-West, O. (2019), “The Relative Impact of Income and Financial Literacy on Financial Inclusion in Nigeria”, Journal of International Development, John Wiley and Sons Ltd, Vol. 31 No. 4, pp. 312–335.
2. Bharadwaj, P. and Suri, T. (2020), “Improving Financial Inclusion through Digital Savings and Credit”, AEA Papers and Proceedings, Vol. 110, pp. 584–588.
3. Bhatia, A. and Mittal, P. (2019), “Big Data Driven Healthcare Supply Chain: Understanding Potentials and Capabilities”, SSRN Electronic Journal, available at:https://doi.org/10.2139/ssrn.3464217.

DOI: https://doi.org/10.53338/ADHIPA2021.V08.Si01.09

4. Bhatia, S. and Singh, S. (2019), “Empowering Women Through Financial Inclusion: A Study of Urban Slum”, Vikalpa, SAGE Publications Ltd, Vol. 44 No. 4, pp. 182–197.
5. Bire, A.R., Sauw, H.M. and Maria, -. (2019), “The effect of financial literacy towards financial inclusion through financial training”, International Journal of Social Sciences and Humanities, Vol. 3 No. 1, pp. 186–192.
6. Counted, A.V. and Arawole, J.O. (2015), “‘We are connected, but constrained’: internet inequality and the challenges of millennials in Africa as actors in innovation”, Journal of Innovation and Entrepreneurship, Vol. 5 No. 1, p. 3.
7. Goel, N. and Madan, P. (2019), “Benchmarking financial inclusion for women entrepreneurship – a study of Uttarakhand state of India”, Benchmarking, Vol. 26 No. 1, pp. 160–175.
8. Hadad, S. and Bratianu, C. (2019), “Dematerialization of banking products and services in the digital era”, Management and Marketing, Vol. 14 No. 3, pp. 318–337.
9. Hendriks, S. (2019), “The role of financial inclusion in driving women’s economic empowerment”, Development in Practice, Routledge, Vol. 29 No. 8, pp. 1029–1038.
10. Kabakova, O. and Plaksenkov, E. (2018), “Analysis of factors affecting financial inclusion: Ecosystem view”, Journal of Business Research, Vol. 89, pp. 198–205.
11. Koomson, I., Villano, R.A. and Hadley, D. (2020), “Intensifying financial inclusion through the provision of financial literacy training: a gendered perspective”, Applied Economics, Routledge, Vol. 52 No. 4, pp. 375–387.
12. Lyons, A. and Kass-Hanna, J. (2018), “Financial Inclusion, Financial Literacy and Economically Vulnerable Populations in the Middle East and North Africa”, SSRN Electronic Journal, available at:https://doi.org/10.2139/ssrn.3189563.
13. MartínezTurégano, D. and GarcíaHerrero, A. (2018), “Financial Inclusion, Rather Than Size, Is the Key To Tackling Income Inequality”,

DOI: https://doi.org/10.53338/ADHIPA2021.V08.Si01.09

Singapore Economic Review, World Scientific Publishing Co. Pte Ltd, Vol. 63 No. 1, pp. 167–184.

14. Melubo, K.D. and Musau, S. (2020), “Digital Banking and Financial Inclusion of Women Enterprises in Narok County, Kenya”, International Journal of Current Aspects in Finance, Banking and Accounting, Vol. 2 No. 1, pp. 28–41.
15. Migap, J.P., Okwanya, I. and Ojeka, G. (2015), “Financial Inclusion for Inclusive Growth : The Nigerian Perspective”, International Journal of Information Technology and Business Management, Vol. 37 No. 1, pp. 1–8.
16. Mittal, P. (2020a), “Big data and analytics: a data management perspective in public administration”, International Journal of Big Data Management, Vol. 1 No. 2, p. 152.
17. Mittal, P. (2020b), “Impact of Digital Capabilities and Technology Skills on Effectiveness of Government in Public Services”, 2020 International Conference on Data Analytics for Business and Industry: Way Towards a Sustainable Economy, ICDABI 2020, IEEE, pp. 1–5.
18. Mittal, P. (2020c), “A multi-criterion decision analysis based on PCA for analyzing the digital technology skills in the effectiveness of government services”, 2020 International Conference on Decision Aid Sciences and Application, DASA 2020, IEEE, pp. 490–494.
19. Okoye, L.U., Olayinka, E. and Nwannenka, J.M. (2017), “Financial Inclusion As A Strategy For Enhanced Economic Growth and Development”, Journal of Internet Banking and Commerce, Vol. 22 No. 1–14, p. 10.
20. Ozili, P.K. (2018), “Impact of digital finance on financial inclusion and stability”, Borsa Istanbul Review, Vol. 18 No. 4, pp. 329–340.
21. Ozili, P.K. (2020), “Financial inclusion research around the world: A review”, Forum for Social Economics, available at:https://doi.org/10.1080/07360932.2020.1715238.
22. Patwardhan, A. (2018), “Financial Inclusion in the Digital Age”, Handbook of Blockchain, Digital Finance, and Inclusion, Volume 1: Cryptocurrency, FinTech, InsurTech, and Regulation, pp. 57–89.

DOI: https://doi.org/10.53338/ADHIPA2021.V08.Si01.09

23. Singh, S. and Srivastava, R.K. (2020), “Understanding the intention to use mobile banking by existing online banking customers: an empirical study”, Journal of Financial Services Marketing, Palgrave Macmillan, Vol. 25 No. 3–4, pp. 86–96.
24. Sumarsono, Al-Mudimigh, A. and Anshari, M. (2021), “Financial Technology and Innovative Financial Inclusion”, Research Anthology on Concepts, Applications, and Challenges of FinTech, pp. 142–149.
25. Yadav, S., Chakraborty, P., Mittal, P. and Arora, U. (2018), “Children aged 6–24 months like to watch YouTube videos but could not learn anything from them”, ActaPaediatrica, International Journal of Paediatrics, Vol. 107 No. 8, pp. 1461–1466.
26. Yoon, C. (2020), “Digital Africa: An Analysis of Digital Trends in Africa and Their Driving Factors”, pp. 109–133.

DOI: https://doi.org/10.53338/ADHIPA2021.V08.Si01.09