

Financial Inclusion In SAARC Countries: An Individuals' Characteristics Analysis

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Abstract

Promoting financial inclusion is one of the major development goal of SAARC countries. Financial inclusion is essential to reducing extreme poverty and boosting shared prosperity. The main aim of this paper is to examine the impact of education, gender, income and country income group on ownership of accounts. The data source for this study is Findex report 2017(World Bank, 2018). The impact has been assessed using logit regression on data of Afghanistan, Bangladesh, India, Nepal, Pakistan, and Sri Lanka. The data is analyzed using Eviews 9 software package. Based on the results, it can be suggested to SAARC countries to enhance the formal account by removing the obstacles due to gender, income and education through initiatives like Pradhan Mantri Jan Dhan Yojna. Policy should be devised to focus on female, less educated and low-income group.

Keywords: Financial Indusion, SAARC, Gender, Income, Education

Introduction

In words of Franklin D. Roosevelt “the test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little.” He had said so in 1937 but the approach is still relevant.

Financial Inclusion is defined as “universal access to a wide range of financial services at a reasonable cost. These include not only banking products but also other financial services, such as, insurance and equity products”(Rajan, 2009). Promoting financial inclusion is one of the major development goal of SAARC countries. Financial inclusion is essential to reducing extreme poverty and boosting shared prosperity. Financial inclusion reduces poverty and income disparity(Park & Mercado, 2015). Financial inclusion is strongly related with economic growth (Sarma&Pais, 2008; Blando, 2013). Further,increased interest of government, policy makers as well as researchers also represents the importance of financial inclusion for social and economic development. The level of development of a nation's financial system is the best indicator of its general economic development(Massey, 2010).

Financial inclusion is intended to provide economically and socially excluded people with equal opportunities through the provision of affordable financial services. The different financial services include Bank Accounts, Saving, Insurance, Payments & Remittances, Credit and Financial advice. Majority of the poorare not able to use formal financial services.

According to Global Findex Report 2017, 69 percent of the adults across the globe have an account which has increased from 62 percent in 2014. India is leading in financial inclusion among SAARC nations. There are two broad categories of barriers to financial inclusion i.e. demand side and supply side barriers. Complex nature of financial services, place of living, financial literacy and convenience and affinity towards informal sector are the demand side barriers. Legal identity and outreach issue are the supply side barriers (Gupta, 2011).

However, limited work has so far focused on SAARC nations where the financial inclusion is still under process. This paper aims to fill the gap by using World Bank's Data,Findex2017.

Literature Review

Income, literacy, inequality, physical infrastructure and urbanization play an important role in improving financial inclusion. Development and financial inclusion in a country go hand in hand and are very close with each other (Sarma&Pais, 2008).

Common obstacles for financial exclusion vary from nation to nation. These obstacles are identification requirements, physical access difficulties due to bank branches closures, bank account terms and conditions, bank charges, psychological and cultural hindrances (Kempson et al., 2004). Similarly, Beck et al. (2004) in their study also identified the barriers, for example, minimum balance, required documents and credit balances are associated with lower level of financial outreach.

Several authors have identified the key determinants of the financial inclusion. Sama (2008) considered availability of banking services, banking penetration and usage of banking system to develop an index to measure financial inclusion. Similarly, Amidzic (2014) in his paper uses outreach, usage quality and cost of usage to assess the financial inclusion. Furthermore, CRISIL (2018) used credit, deposit, branch and insurance penetration to study the level of financial inclusion in India.

Several studies have examined the individual characteristics of financial inclusion. Allen et al. (2012) studied the individual as well as country characteristics associated with the use of formal bank account. They find that lower account costs, low-fee accounts, documentation relaxation lead to ownership and use of accounts. Richer, urban, educated, older, married and employed have greater probability to own and use bank account. In similar study, Fungacova and Weill (2015) in their article analyzed financial inclusion in china and compared it with other BRICS nations. Financial inclusion is high for China. They discover that higher earnings, better education, older and being man is linked with greater use of formal accounts and credits in china.

Additionally, Pal and Pal (2012) in their paper find that there is no impact of the gender of family head and the social category on use of financial services in urban households. However, it

is significant in case of rural households. Similarly, Siddiqui & Siddiqui (2018) also confirm the significant effect of caste and religion on ownership of bank account in rural household.

Demirguc-kunt et al. (2013) in their paper evaluated the gender disparities in the use of financial services. They find a substantial impact of gender on ownership of bank account. In a similar study, Ghosh & Vinod (2017) find that the household headed by female are less likely to own and use formal financial services where educational and wage discrimination play an important role. In a recent study by Lenka & Barik (2018), income and education are effective and significant indicators for inclusion of financially excluded people. Financial inclusion is also negatively associated with rural population and employment.

Kumar & Mohanty (2011) in their study compared the financial inclusion and development related with the SAARC countries. Financial literacy may improve the financial Inclusion drive in SAARC nation. Financial literacy and awareness remain a major hurdle in the usage of financial services/products (Dixit & Ghosh, 2013).

Objectives

1. To assess the financial inclusion gap between SAARC nations.
2. To examine the impact of individual's characteristics on ownership of accounts in low income SAARC nations.
3. To assess the impact of individual's characteristics on ownership of accounts in middle income SAARC nations.
4. To observe the impact of gender, income, education and country's income group on ownership of accounts in SAARC nations

Hypotheses

In order to achieve the aforementioned objectives, the following null hypotheses have been formulated

1. There is no impact of individual's characteristics on ownership of accounts in low income SAARC nations.

2. There is no impact of individual's characteristics on ownership of accounts in middle income SAARC nations.
3. There is no impact of gender, income, education and country's income group on ownership of accounts in SAARC nations.

Methodology

The primary aim of this paper is to examine the impact of education, gender, income and country income group on ownership of accounts. The data source for this study is Findex report 2017(World Bank, 2018). It is conducted by World Bank. The sample size in this study is 8704 covering SAARC nations i.e. Afghanistan (1000), Bangladesh (1000), India (3000), Nepal (1000), Pakistan(1600) and Sri Lanka (1104). Bhutan and Maldives are excluded from the current study due to unavailability of data.

Dependent variable is ownership of account (at financial institution). Ownership of accounts is one of the main indicators of studying financial inclusion (Demirguc-Kunt&Klapper, 2012). The variable is binary, where it could take the value 'zero' for no ownership of account and 'one' otherwise.

Income, education, age and country income group are independent variables. Income, education and age are the individual characteristics data whereas country income group is country characteristics data. The impact has been assessed using logit regression. The data is analyzed using Eviews 9 software package. Logit model is suitable for modelling dichotomous dependent variable. Logistic regression finds the best suitable model to explain the relationship between binary dependent variable and set of independent variables. According to Park and Kerr (1990) with the logit model, the dependent variable can be interpreted as the log odds ratio that a particular event happens with the explanatory variable's specific values. Odd refers to the ratio of probabilities. In the current study, it is the ratio of probability of having a bank account to the probability of not having a bank account.

$$\text{odd} = \frac{\pi}{1 - \pi} \text{-----} (1)$$

The logit conversion is given by,

$$\text{Logit}(\pi) = \ln(\pi/1 - \pi) \text{-----} (2)$$

Where, π = probabilities of having a bank account

$1 - \pi$ = probabilities of not having a bank account

$\ln$ = natural logarithm

Log odd can be any number ranging from minus infinity to plus infinity (DeMaris, 1995). Therefore, it is the linear function of the independent variables. Hence, the logistic regression model becomes:

$$\ln(\pi/1 - \pi) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n \text{-----} (3)$$

Where, α = intercept

$\beta_1, \dots, \beta_n$ = regression coefficient of independent variables $X_1, \dots, X_n$

$X_1, \dots, X_n$ = independent variables i.e. Gender, Education, Income and Country Income group.

This model is now similar to linear regression model except dependent variable which is log odd.

Analysis

Table 1 encapsulates the respondent's profile. Number of respondents for Afghanistan, Bangladesh, India, Nepal, Pakistan and Sri Lanka are 1000, 1000, 3000, 1000, 1600 and 1104 respectively. 15%, 50%, 80%, 45%, 21%, and 74% respondents of Afghanistan, Bangladesh, India, Nepal, Pakistan and Sri Lanka respectively have accounts at financial institutions. Financial inclusion is higher for India as compare to other SAARC nations. Inequality in account ownership between male and female is evidently perceptible across the SAARC nations. Afghanistan (4%) followed by Pakistan (7%) have a smaller number of female account holders. The gender gap between less educated and poorer account ownership is also lower. Hence, it seems that unbanked are much more likely to be female, less educated and poor.

Table 1: Sample Profile

Country	Account % (15+)	No. of Respondents	Account Male % (15+)	Account Female % (15+)	Education Primary or less % (15+)	Education Secondary or more % (15+)	Income Poorest 40%	Income Richest 60%	Country Income Group
Afghanistan	15	1000	16	4	9	31	14	16	Low
Bangladesh	50	1000	65	36	40	57	40	57	Middle
India	80	3000	83	77	75	85	77	82	Middle
Nepal	45	1000	50	42	42	59	38	50	Low
Pakistan	21	1600	35	7	16	34	14	26	Middle
Sri Lanka	74	1104	74	73	62	85	71	76	Middle

Source: Findex 2017

Afghanistan and Nepal are categorized as low-income nations. Bangladesh, India, Pakistan and Sri Lanka are characterized as middle-income nations.

Table 2 depicts the binary logit regression for low-income nations. The results indicate positive and significant relationship between ownership of accounts with education as well as gender. Higher is the education, they are more likely to have a bank account. The association between income and ownership of accounts is not significant.

Table 2: Binary Logit (Low Income Country)

Dependent Variable: FIA

Sample: 2000

Variable	Coefficient	Standard Error	z-statistic	Prob.
C	-2.1402	0.19435	-11.012	0.0000
EDU	0.59071	0.12919	4.57235	0.0000
GEN	0.40979	0.11926	3.43618	0.0006
INC	-0.0049	0.13236	-0.0371	0.9704

Source: By Author(s)

Similarly, Table 3 shows the results of middle-income nations. The relationship of education and income is significant with ownership of accounts. Gender has an adverse impact on ownership of accounts which means female are less likely than male to own a bank account.

Table 3: Binary Logit (Middle Income Country)

Dependent Variable: FIA

Sample: 6704

Variable	Coefficient	Standard Error	z-statistic	Prob.
C	0.25516	0.09018	2.82943	0.0047
GEN	-2.9306	0.12317	-23.794	0.0000
EDU	2.47413	0.12633	19.5849	0.0000
INC	0.51675	0.10689	4.83462	0.0000

Source: By Author(s)

Table 4 illustrates the results for all SAARC nations. The impact of gender, education, income and country income group are significant on ownership of accounts. Like middle income nations, this also shows negative relationship of gender with ownership of accounts. The adverse relationship suggests a greater obstacle to owning a bank account is being a woman.

Table 4: Binary Logit (All SAARC nations)

Dependent Variable: FIA

Sample: 8704

Variable	Coefficient	Standard Error	z-statistic	Prob.
C	-2.2992	0.12823	-17.931	0.0000
EDU	1.41321	0.07706	18.3402	0.0000
GEN	-1.5786	0.07057	-22.371	0.0000
INC	0.37511	0.07705	4.86818	0.0000
CIG	1.16942	0.05974	19.5757	0.0000

Source: By Author(s)

Conclusion and Implications

Based on data from Global Findex2017, this research explores the level of financial inclusion in SAARC nations. The research shows that India has a greater level of financial inclusion compared to other SAARC countries. It has been tried to establish the relationship between individual characteristics such as gender, income, education with ownership of accounts for low as well as middle income group of SAARC nations. The findings suggest that Education and gender have significant relationship in low income SAARC nations whereas education, gender as well as income have significant impact on ownership of account in middle income SAARC nations.

Similarly, income, gender, education as well as country income group (Country Characteristics) have significant impact on ownership of account for whole SAARC nations. Gender is negatively associated with ownership of account which means that being a female reduces the likelihood of account ownership. Similarly, less educated and being poor reduces chances of having account.

Based on the results, it can be suggested to SAARC countries to enhance the formal account by removing the hindrances due to gender, income and education through initiatives like Pradhan Mantri Jan Dhan Yojna. Policy should be devised to Focus on female, less educated and low-income group. In Afghanistan and Nepal income is not significant, therefore, in these countries such strategy should be formulated which can target particularly female and less educated.

References

Allen, F., Demirgüç-Kunt, A., Klapper, L., Peria, M.S.M. (2012). The foundations of financial inclusion: Understanding ownership and use of formal accounts. *Policy Research Working Paper. The World Bank Development Research Group Finance and Private Sector Development Team*, 1-68.

- Amidzic, G., Massara, A., & Mialou, A. (2014). Assessing Countries' Financial Inclusion-A New Composite Index. IMF Working Paper, WP/14/36. Available at: <https://www.imf.org/external/pubs/ft/wp/2014/wp1436.pdf>
- Bank, W. (2018). Global Findex Database 2017. *World Bank*.
- Beck, T., Demirguc-Kunt, A., & Martinez Peria, M. S. (2008). *Bank financing for SMEs around the world: Drivers, obstacles, business models, and lending practices*, The World Bank.
- Blando, S. C. F. (2013). Linking Financial Inclusion and Development. Available at: <https://eprints.ucm.es/26090/1/TFG13Ferez.pdf>
- CRISIL (2018). CRISIL Inclusix: Financial inclusion surges, driven by Jan-DhanYojna. Available at: <https://www.crisil.com/content/dam/crisil/crisil-foundation/generic-pdf/crisil-inclusix-financial-inclusion-surges-driven-by-Jan-Dhan-yojana.pdf>
- DeMaris, A. (1995). A tutorial in logistic regression. *Journal of Marriage and the Family*, 57(4), 956-968.
- Demirguc-Kunt, A., & Klapper, L. (2012). *Measuring financial inclusion: The global findex database*. The World Bank.
- Demirguc-Kunt, A., Klapper, L., & Singer, D. (2013). *Financial inclusion and legal discrimination against women: evidence from developing countries*. The World Bank.
- Dixit, R., & Ghosh, M. (2013). Financial inclusion for inclusive growth of India-A study of Indian states. *International Journal of Business Management & Research*, 3(1), 147-156.
- Fungacova, Z., & Weill, L. (2015). Understanding financial inclusion in China. *China Economic Review*, 34, 196-206.
- Ghosh, S., & Vinod, D. (2017). What constrains financial inclusion for women? Evidence from Indian micro data. *World Development*, 92, 60-81.

- Gupta, S. K. (2011). Financial Inclusion-IT as enabler. *Reserve Bank of India Occasional Papers*, 32(2), 129-148.
- Kempson, E., Atkinson, A., & Pilley, O. (2004). Policy level response to financial exclusion in developed economies: lessons for developing countries. *Report of Personal Finance Research Centre, University of Bristol*.
- Kumar, B., & Mohanty, B. (2011). Financial Inclusion and Inclusive Development in SAARC Countries with Special Reference to India. *Vilakshan: The XIMB Journal of Management*, 8(2), 13 – 22.
- Lenka, S. K., & Barik, R. (2018). Has expansion of mobile phone and internet use spurred financial inclusion in the SAARC countries?. *Financial Innovation*, 4(1), 5.
- Massey, J. (2010). Role of financial institutions in financial inclusion. *FICCI's Banking & Finance Journal*, 2, 11-15.
- Pal, R., & Pal, R. (2012). Income related inequality in financial inclusion and role of banks: evidence on financial exclusion in India. *Indira Gandhi Institute of Development Research*.
- Park, C. Y., & Mercado, R. (2015). Financial inclusion, poverty, and income inequality in developing Asia. *Asian Development Bank Economics*.
- Park, K. H., & Kerr, P. M. (1990). Determinants of academic performance: A multinomial logit approach. *The Journal of Economic Education*, 21(2), 101-111.
- Rajan, G, Raghuram (2009), A Hundred Small Steps - Report of the Committee on Financial Sector Reforms. Available at: http://planningcommission.nic.in/reports/genrep/rep_fr/cfsr_all.pdf
- Sarma, M. (2008). *Index of financial inclusion* (No. 215). Working paper.
- Sarma, M., & Pais, J. (2008). *Financial inclusion and development: A cross country analysis*. Madras Schools of Economics.

Siddiqui, T. A., & Siddiqui, K. I. (2018). Assessing Linkage between Community and Financial Inclusion in India. *Journal of Commerce and Management Thought*, 9(1), 111-119.