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RESEARCH ARTICLE

Financial Resilience in the BRICS Countries: Empirical Evidence from the Global Findex Survey 2021

Vikas[1]*, Vinod Naik[1]

[1]*Department of Economics, Central University of Himachal Pradesh, Dharamshala, Himachal Pradesh, India,*

Corresponding Author: Vikas

Abstract: **Abstract:** Economic disruption has made financial resilience a key priority for policymakers worldwide. BRICS, comprising a group of emerging countries, holds an important place in the global space, navigating numerous financial challenges. This research seeks to explore the financial resilience levels and determinants in the BRICS countries using the Global Findex Survey 2021. The study found that the majority of the individuals cited an inability to come up with an emergency fund, indicating a low level of financial resilience in the BRICS countries. We observed that China faced the least difficulty raising an emergency fund, while India had the largest share of individuals facing high difficulty raising an emergency fund. Most of the respondents in the BRICS countries relied on working and family, and friends to raise the funds. Furthermore, the study exhibited that Russia and India showed more reliance on family and friends, while China had the highest number of individuals raising an emergency fund from their savings. Both South Africa and India also have the highest number of respondents indicating an inability to raise an emergency fund. Additionally, the regression analysis showed that gender, education, income, urbanicity, mobile money account, saving, and borrowing are key determinants of financial resilience in the BRICS countries.

Keywords: *Financial inclusion, Financial resilience, BRICS, Global Findex.*
JEL Classification: G51, G53, D14

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INTRODUCTION

Financial inclusion has gained quite some importance due to its role in alleviating poverty and promoting economic prosperity (Chibba, 2009; Kim *et al.*, 2018). Financial inclusion, which is characterized by access to a wide range of financial services, has been recognized to be linked with several positive financial outcomes. Its positive linkages with production, wealth accumulation, welfare, and risk management are well documented in the scholarly work (Fomum and Jesse, 2017; Fowowe, 2020; Ofori-Abebrese *et al.*, 2020; Urrea and Maldonado, 2011).

Despite the growing efforts to increase financial inclusion worldwide, households continue to face financial hardship arising from various financial shocks. These financial shocks have a disproportionate effect on the marginalized households, which can increase the existing vulnerabilities of the households.

Financial vulnerability arising from several financial shocks, which can put significant financial stress on individuals, is a growing concern worldwide. Income shocks such as loss of employment, reduced working hours, and wage cuts, and expense shocks such as sudden increases in expenses like home or car repairs, medical emergencies, and natural calamities can rapidly deplete financial resources and push individuals into the cycle of poverty (Bufe *et al.*, 2022).

These financial shocks can have an everlasting effect on individuals' financial vulnerability and can erode the financial resilience and well-being of individuals significantly, especially for those without a financial cushion or prior financial planning.

Rising financial vulnerability among individuals globally has positioned financial resilience as a key priority for policymakers. With the growing importance of financial resilience, several researchers have attempted to define financial resilience distinctively in scholarly works. McKnight and Rucci (2020) defined it as an individual's ability to cope with financial shocks and recover from financial adversities.

Salignac *et al*. (2019) conceptualized it as an amalgamation of four factors, i.e., economic resources, financial products and services, financial knowledge and behavior, and social capital. Financial resilience is increasingly recognized as a critical tool for fostering economic stability and ensuring long-term individual financial well-being, especially in periods of economic uncertainty. Households with higher financial resilience are more equipped to handle unforeseen financial challenges, reducing the risk of debt accumulation and financial distress.

However, many studies (Lusardi *et al*., 2021; Pomeroy *et al*., 2020; Salignac *et al*., 2022) have highlighted several barriers to financial resilience, including limited access to finance, low saving levels, and inadequate financial literacy.

However, despite growing concern for financial resilience, disparities continue to persist among socio-economic groups. Financial resilience was found to be lacking, especially among marginalized groups, including women, the poor, less educated, minorities, and people who lack financial management (Deevy *et al*., 2021).

The BRICS countries- Brazil, Russia, China, India, and South Africa hold a key place in the global world. BRICS was established as a group of emerging countries for global cooperation. Collectively, these countries represent 46% of the global population and roughly account for 30% of the global output. Most of these countries are upper-middle-income and low-middle-income countries, as characterized by the World Bank.

Despite their global significance and economic advancement, these countries face considerable challenges to financial resilience due to disparities in income levels, poverty levels, access to financial resources, and socio-economic inequalities (Maiorano and Manor, 2017). BRICS countries face significant disparities in terms of financial inclusion and access to digital financial services (Khandare, 2019; Kaur and Kang, 2024). Additionally, financial literacy in BRICS countries (28%) is also nearly half that of major advanced countries (55%), with BRICS countries having significant disparities observed within themselves (Klapper and Lusardi, 2020).

The widespread inequalities and vulnerabilities among BRICS countries necessitate an evaluation of the current status of financial resilience in BRICS countries. Therefore, this study seeks to explore the factors influencing the financial resilience of individuals in BRICS countries using the comprehensive dataset of the Global Financial Inclusion Survey 2021.

This study is organized as follows: firstly, the materials and methods, which include the data sources and research model, followed by the results and discussion, and finally the conclusions drawn from the study.

METHODOLOGY

Data Source and Measurement

To meet the objective of the study, we utilized the latest available Global Findex survey 2021 by the World Bank. The survey collected data from nearly 128000 individuals in 123 countries. The Global Findex survey collects data on financial inclusion, saving, borrowing, digital payments, and financial resilience globally.

The BRICS countries, as a group of emerging countries with diverse socio-economic backgrounds, hold great significance in global representation. The total sample size for the study was 10527. Similar to Lusardi *et al*. (2021), to measure the financial resilience of individuals in the BRICS countries, we used the survey question of whether individuals were able to raise an emergency fund equivalent to 1/20th of their GDP per capita in 30 days and 7 days.

Regression Analysis

Concerning the ordinal nature of our dependent variables, i.e., 30 days financial resilience and 7 days financial resilience, we used an ordinal logit model to investigate the determinants of financial resilience in the BRICS countries. The description and measurement of the dependent and independent variables are given in Table 1, where 30 days and 7 days of financial resilience are taken as dependent variables, and other socio-economic variables and financial indicators are taken as independent variables.

Table 1: Description of variables

Classification	Variable	Description	Measurement
Dependent variables	30 Days financial resilience	Level of difficulty in raising an emergency fund in 30 days	Categorical: 1= very difficult, 2= somewhat difficult, 3= not difficult
	7 Days financial resilience	Level of difficulty in raising an emergency fund in 7 days	Categorical: 1= very difficult, 2= somewhat difficult, 3= not difficult, 4= cannot come up with funds
Independent variables	Gender	Respondent's gender	Dummy: 1 = male, 0 = female
	Age	Respondent's age	Continuous
	Age squared	Square of respondent's age	Continuous
	Education level	The education level of the respondents	Categorical: 1= completed primary, 2= completed secondary, 3= completed tertiary education
	Income quintiles	Household's income quintile	Categorical: 1= poorest 20%, 2= second 20%, 3= middle 20%, 4= fourth 20%, 5= richest 20%
	Employment	Respondent's employment status	Dummy: 1 = out of the workforce, 0 = in the workforce
	Urbanicity	Urbanicity of the respondents	Dummy: 1 = urban, 0 = rural
	Financial account ownership	Respondent has an account at a financial institution	Dummy: 1 = yes, 0 = no
	Mobile account ownership	Respondent has a mobile money account	Dummy: 1 = yes, 0 = no
	Savings	Respondent has saved money in the past	Dummy: 1 = yes, 0 = no
	Borrowing	Respondent has borrowed money in the past	Dummy: 1 = yes, 0 = no

Source (s): Compiled by authors

RESULTS

Descriptive Analysis

The socio-economic profile of the sampled individuals in BRICS countries is presented in Table 2. The sample size for the current study was 10,527, among which 49% of the respondents were female, whereas 50.7% were male. Most of the respondents were in the age category of 15-34 years (45.76%), with South Africa, China, and India having a relatively larger share of the young population, whereas Russia and Brazil showed a relatively larger share of middle-aged and older respondents. Disparities in educational attainment were evident, with India having the largest share of primary-educated individuals (67.27%) while Russia has the highest share of tertiary-educated adults (27.47%). Income distribution showed equal distribution across all quintiles in all countries. India also observed the highest number of people out of the workforce (44.74%), whereas South Africa was found to accommodate almost three-fourths (73.65%) of the population in rural areas.

Table 2: Socio-economic profile of the respondents in the BRICS countries

Variables	Categories	Overall (n=10527)	Brazil (n=1002)	Russia (n=2011)	India (n=3000)	China (n=3500)	South Africa (n=1014)
Gender	Female	49.23	48.73	54.04	48.27	47.08	50.40
	Male	50.77	51.27	45.96	51.73	52.92	49.60
Age group	15-34 years	45.76	37.82	30.93	50.03	50.66	53.45
	35-54 years	39.97	38.22	46.79	36.43	40.66	36.29
	55 years and above	14.27	23.95	22.28	13.53	8.69	10.26
Education	Completed primary	45.51	30.90	9.00	67.27	58.64	22.42

level	education						
	Completed secondary education	39.79	58.22	63.54	27.05	22.80	71.19
	Completed tertiary education	14.70	10.87	27.47	5.67	18.57	6.39
Income quintile	Poorest 20%	19.93	19.99	19.99	19.97	19.90	19.73
	Second 20%	20.03	19.94	19.97	19.98	20.10	20.14
	Middle 20%	20.00	19.79	20.02	20.05	19.98	20.07
	Fourth 20%	20.01	20.27	20.01	19.97	19.98	20.05
	Richest 20%	20.03	20.00	20.01	20.04	20.05	20.02
Employment status	In the workforce	61.63	72.12	63.27	55.26	NA	66.89
	Out of the workforce	38.37	27.88	36.73	44.74	NA	33.11
Urbanicity	Urban	46.67	NA	NA	53.54	NA	26.35
	Rural	53.33	NA	NA	46.46	NA	73.65

Source (s): Compiled by authors

Table 3: Financial resilience in the BRICS countries

Country	30 Days financial resilience			7 Days financial resilience			
	Very difficult	Somewhat difficult	Not difficult	Very difficult	Somewhat difficult	Not difficult	I cannot come up with the funds
Brazil	50.41	32.36	17.23	68.5	17.88	12.70	0.92
China	8.74	25.38	65.89	16.97	23.46	58.27	1.31
India	62.52	27.99	9.49	69.93	17.56	6.28	6.23
Russia	22.58	46.64	30.77	43	35.44	21.35	0.21
South	46.38	29.33	24.30	57.84	20.76	17.71	3.69
Overall	33.22	31.47	35.31	44.88	23.58	28.98	2.56

Source (s): Compiled by authors

Further, the level of financial resilience within the BRICS countries was measured by the ability to access emergency funds in 30 and 7 days (Table 3). We observed notable heterogeneity across countries in terms of financial resilience. China showed the highest financial resilience among all BRICS countries, with 65.89% and 58.27% of the respondents reporting no difficulty in raising an emergency fund in 30 days and 7 days, respectively.

In contrast, India reflected the lowest financial resilience, with 65.52% of the adults reporting high difficulty in accessing emergency funds in a month, which increased to 69.93% when the period was reduced to a week. Russia and South Africa observed a moderate level of financial resilience, with 30.77% and 24.30% of adults reporting no difficulty in raising an emergency fund, while Brazil has only 17.23% of adults reporting no difficulty in accessing emergency money in a month.

Overall, 35.31% of the adults in BRICS countries reported no difficulty raising an emergency fund in a month, while 28.98% reported no difficulty in accessing emergency money in a week. This showed a decline in financial resilience by 6 percentage points when the timeframe was shortened to a week.

Table 4: Source of raising an emergency fund in BRICS countries

Country	Saving	Family and friends	Money from working	Borrowing from a bank or employer	Selling assets	Other sources	I cannot come up with the funds
Brazil	10.65	23.52	36.27	13.91	6.27	5.61	3.76
China	33.70	17.51	37.91	1.91	0.88	2.79	5.31

India	11.84	34.34	30.90	4.67	3.63	2.50	12.13
Russia	12.98	37.70	24.63	13.30	2.07	7.21	2.11
South	22.20	31.86	8.45	10.99	4.24	2.41	19.85
Overall	20.27	28.08	30.43	6.87	2.71	3.79	7.84

Source (s): Compiled by authors

Heterogeneities in the source of raising an emergency fund were also observed among BRICS countries. Overall, most of the adults in BRICS countries relied on money from working (30.43%) and family and friends (28.03%) (Table 4). China (33.70%) had the largest share of respondents who were likely to raise funds from savings. Russia (37.7%), India (34.34%), and South Africa (31.86%) showed reliance on social networks as a dominant source of raising emergency funds. We observed that 37.91% of adults in China and 36.27% of adults in Brazil indicated money from working as their preferred source of raising emergency funds. Brazil not only had the lowest percentage of adults likely to raise funds from their savings (10.65%) but also the highest percentage of adults likely to sell assets (6.27%) to raise an emergency fund. Additionally, we found that South Africa (19.85%) and India (12.13%) had the largest share of people reporting an inability to come up with an emergency fund.

Table 5: Distribution of financial resilience by socio-economic demographics in BRICS countries

Variables	Categories	30 days of financial resilience			7 days of financial resilience			
		Very difficult	Somewhat difficult	Not difficult at all	Very difficult	Somewhat difficult	Not difficult	I cannot come up with the funds
Gender	Female	35.77	30.43	33.80	46.83	22.87	28.13	2.17
	Male	30.79	32.45	36.75	43.03	24.26	29.78	2.93
Age group	15-34 Years	33.64	34.38	31.97	47.80	24.36	25.60	2.24
	35-54 Years	31.01	29.87	39.12	42.08	22.67	33.03	2.22
	55 Years and above	36.60	27.96	35.44	43.73	23.60	28.70	3.97
Education level	Completed primary education	42.40	27.20	30.40	50.55	20.45	24.77	4.23
	Completed secondary education	32.21	35.93	31.86	47.87	25.35	25.25	1.53
	Completed Tertiary education	11.25	30.62	58.13	21.73	26.92	50.54	0.80
Income quintile	Poorest 20%	51.50	30.20	18.30	58.27	23.82	13.60	4.31
	Second 20%	42.39	30.71	26.90	52.78	24.17	20.40	2.65
	Middle 20%	35.58	30.91	33.51	48.31	21.18	27.87	2.65
	Fourth 20%	25.70	31.99	42.32	38.85	23.43	35.56	2.16
	Richest 20%	14.42	33.26	52.32	28.91	25.26	44.54	1.29
Employment status	In the workforce	44.18	35.51	20.32	58.59	24.28	14.16	2.97
	Out of the workforce	49.60	33.22	17.18	61.73	22.52	12.09	3.66
Urbanicity	Rural	68.35	20.68	10.97	71.23	14.19	7.42	7.16
	Urban	50.81	34.64	14.55	63.69	21.74	10.2	4.37

Source (s): Compiled by authors

We analyzed the distribution of levels of financial resilience across socio-economic groups, and the results are exhibited in Table 5. We found a gender gap in financial resilience as a higher percentage of males (36.75%) expressed no difficulty raising an emergency fund than their female counterparts (33.8%). The age groups showed an inverted U-shaped pattern with financial resilience, as people in the middle-aged (35-54 years) bracket showed less difficulty in raising the required sum than both younger (15-34 years) and older respondents (55 years and above). Education showed significant disparities in terms of financial resilience, as twice as many adults with tertiary education (50.54%) reported no difficulty raising an emergency fund than adults with both primary education (24.77%) and secondary education (25.25%) in a week. Income showed an upward trend with financial resilience as 51.5% of adults in the poorest income quintile faced high difficulty in raising the required sum in comparison to 14.42% in the richest income quintile. Additionally, we observed that respondents who were in the workforce (20.32%) and had urban locality (14.55%) were less likely to face difficulty in raising emergency funds than their out-of-workforce (17.18%) and rural counterparts (10.97%), respectively, in a month.

Table 6: Distribution of sources of raising an emergency fund in BRICS countries

Variables	Particulars	Savings	Family and friends	Money from working	Borrowing from a bank or employer	Selling assets	Other sources	I cannot come up with the funds
Gender	Female	20.49	32.29	25.61	7.37	2.13	3.58	8.53
	Male	20.07	24.02	35.07	6.40	3.27	3.99	7.18
Age group	15-34 Years	18.74	29.84	33.50	5.45	2.27	3.73	6.47
	35-54 Years	21.24	24.44	32.98	7.91	2.82	4.32	6.29
	55 Years or above	21.75	30.95	19.35	7.98	3.45	2.97	13.55
Education level	Completed primary education	16.66	27.01	32.57	5.42	3.07	3.12	12.14
	Completed secondary school	19.52	31.21	27.45	9.00	2.90	4.46	5.46
	Completed tertiary education	33.32	23.01	31.80	5.70	1.26	3.68	1.23
Income quintile	Poorest 20%	9.90	33.86	24.00	8.11	5.55	3.83	14.75
	Second 20%	15.12	32.58	29.33	6.90	2.78	3.29	10.00
	Middle 20%	18.96	28.73	31.82	7.42	1.91	4.15	7.01
	Fourth 20%	27.60	23.07	31.69	7.19	2.15	3.04	5.26
	Richest 20%	29.47	22.35	35.17	4.79	1.23	4.64	2.36
Employment status	In the workforce	13.42	27.80	33.66	9.87	3.88	4.35	7.02
	Out of the workforce	13.57	42.79	14.99	8.58	3.23	4.22	12.62
Urbanicity	Urban	11.60	32.77	26.98	6.25	4.15	2.43	15.81
	Rural	16.91	34.54	23.78	6.25	3.46	2.52	12.54

Source (s): Compiled by authors

Table 6 presents the sources of raising emergency funds by socio-economic demographics in the BRICS countries. The findings indicated that the majority of men were likely to raise funds by working, while females were more likely to rely on social networks for emergency funds. We found that younger (33.5%) and middle-aged (32.98%) respondents were more likely to rely on working while older respondents were more likely to indicate social networks (30.95%) and savings (21.75%) as their preferred source of raising funds, also they were more likely to raise fund from selling assets (3.45%) among all age groups. We observed that both primary and secondary-educated adults were more likely to raise funds by working and relying on family and friends, while adults who have completed tertiary education showed a greater tendency towards raising funds from their savings (33.32%). When it comes to the income of the adults, the findings indicated that adults in all income quintiles were more likely to raise funds by working and relying on family and friends however, adults in the fourth and richest income quintiles showed a relatively higher inclination to raise fund from saving (29.47%) than other income quintiles, whereas respondents in the poorest income quintiles showed the highest percentage of adults raising fund by selling assets among all socio-economic groups.

Additionally, we observed that 42.79% of adults who were out of the workforce were likely to raise funds from family and friends, while 33.66% of adults in the workforce were more likely to raise funds by working. The study highlighted that urban respondents showed relatively greater reliance on family and friends and money from working than their rural counterparts. Furthermore, we observed that females, older respondents, respondents who had primary education, were poor, out of the workforce, and urban respondents were more likely to report an inability to come up with an emergency fund.

Regression Analysis

To explore the factors influencing the financial resilience of the respondents in the BRICS countries, we employed two ordinal logit models; firstly on 30 days financial resilience and then on 7 days financial resilience, and the results are presented in Table 7. We found significant gender differences in terms of financial resilience, with males being less likely to report difficulty in raising emergency funds, especially over 30 days. Age and age squared showed no significant effect on financial resilience. Education was observed to be positively correlated with financial resilience, with tertiary-educated respondents showing the highest likelihood of being financially resilient. Income showed an upward trend with financial resilience, as financial resilience tends to improve with income, with the higher income quintiles exhibiting better financial resilience. Another interesting finding we observed is that employment status did not have a significant impact on financial resilience.

Additionally, urban individuals showed a slightly better probability of being financially resilient, but the effect was only significant in the case of 30 days of financial resilience. Surprisingly, having an account in the financial institution did not exhibit a significant impact on financial resilience, whereas having a mobile money account increased the likelihood of being financially resilient both in the case of 30 days and 7 days.

An interesting finding we observed from the study was that adults with higher education, higher income, and who had saved were more likely to exhibit an inability to come up with an emergency fund. We observed that adults who have saved in the past year demonstrated a higher tendency to be financially resilient, while respondents who have borrowed were linked to increased difficulty in raising an emergency fund.

Table 7: Determinants of financial resilience in BRICS countries

Variable	Category	Model 1 30 Days of financial resilience			Model 2 7 Days of financial resilience			
		Very difficult	Somewhat difficult	Not difficult	Very difficult	Somewhat difficult	Not difficult	I cannot come up with the funds
Gender	Male	-0.055*** (0.015)	0.025*** (0.007)	0.030*** (0.008)	-0.028* (0.016)	0.012* (0.007)	0.010* (0.005)	0.007 (0.004)
Age	Continuous	0.002 (0.003)	-0.001 (0.001)	-0.001 (0.001)	0.003 (0.003)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)

Age squared	Continuous	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Education level	Completed secondary education	-0.094*** (0.019)	0.048*** (0.010)	0.046*** (0.009)	-0.054** (0.019)	0.024** (0.009)	0.018** (0.006)	0.012** (0.004)
	Completed tertiary education	-0.167*** (0.026)	0.077*** (0.012)	0.089*** (0.015)	-0.106*** (0.027)	0.044*** (0.011)	0.036*** (0.010)	0.025*** (0.007)
Income quintiles	Second 20%	-0.053* (0.028)	0.037* (0.020)	0.015* (0.008)	0.015 (0.029)	-0.008 (0.015)	-0.005 (0.009)	-0.003 (0.005)
	Middle 20%	-0.135*** (0.027)	0.091*** (0.019)	0.043*** (0.009)	-0.011 (0.028)	0.006 (0.014)	0.004 (0.009)	0.002 (0.005)
	Fourth 20%	-0.231*** (0.026)	0.147*** (0.018)	0.085*** (0.010)	-0.094** (0.027)	0.045** (0.014)	0.031** (0.009)	0.019*** (0.005)
	Richest 20%	-0.401*** (0.026)	0.211*** (0.018)	0.191*** (0.013)	-0.190*** (0.028)	0.081*** (0.014)	0.065*** (0.010)	0.043*** (0.006)
Employment status	Out of the workforce	-0.003 (0.016)	0.001 (0.007)	0.001 (0.009)	-0.010 (0.017)	0.004 (0.007)	0.004 (0.006)	0.002 (0.004)
Urbanicity	Urban	-0.030** (0.015)	0.014* (0.007)	0.016** (0.008)	0.009 (0.015)	-0.004 (0.007)	-0.003 (0.005)	-0.002 (0.004)
Account in a financial institution	Yes	-0.030 (0.021)	0.014 (0.010)	0.016 (0.011)	0.008 (0.023)	-0.003 (0.010)	-0.003 (0.008)	-0.002 (0.006)
Mobile money account	Yes	-0.037* (0.019)	0.017* (0.009)	0.020* (0.011)	-0.056** (0.019)	0.023** (0.008)	0.019** (0.007)	0.013** (0.005)
Saved in the past	Yes	-0.169*** (0.017)	0.080*** (0.008)	0.090*** (0.010)	-0.104*** (0.017)	0.044*** (0.008)	0.036*** (0.006)	0.024*** (0.004)
Borrowed in the past	Yes	0.074*** (0.015)	-0.033*** (0.007)	-0.041*** (0.008)	0.042** (0.016)	-0.018** (0.007)	-0.014** (0.006)	-0.010** (0.004)

Note (s): Table 7 contains the estimated coefficient of marginal effects using an ordinal logit model with robust standard errors in parentheses using financial 30 days and 7 days financial resilience as the dependent variable. Females, primary education, poorest 20% income quintile, urban, in the workforce are taken as base categories of independent variables for gender, education level, income quintile, urbanicity, and employment status. *** p<0.01, ** p<0.05, * p<0.1.

DISCUSSION

The study aimed to assess the level of financial resilience and to determine the factors influencing the financial resilience of individuals in the BRICS countries. The findings indicated gender to be a significant predictor of financial resilience, with males exhibiting a higher likelihood of being more financially resilient than their female counterparts, which is in line with the findings reported by Salignac *et al.* (2022) and Tinta *et al.* (2022).

The lack of financial resilience among women can be linked to a lack of financial inclusion, poor financial literacy, limited economic participation, and disparities in access to employment opportunities among women (Duflo, 2012; Holloway *et al.*, 2017). We observed that respondents with higher education levels exhibited higher levels of financial resilience, which correlates with the findings of Tinta *et al.* (2022). Individuals

with higher education possess higher financial skills, which enhance their ability to navigate financial challenges and make them more prepared for future events, increasing their ability to absorb and recover from financial shocks (Goyal *et al.*, 2021).

Similarly, income level showed a significant positive relationship with financial resilience, as respondents in the richest income quintile showed a greater likelihood of being financially resilient than adults in the poorest income quintile. Similar findings were reported by Hamid *et al.* (2023) and Tinta *et al.* (2022), who observed a positive effect of income on financial resilience. Respondents with higher income can build a financial buffer and access a wide range of financial instruments to withstand financial shocks, whereas poor households often suffer from limited savings, financial exclusion, and higher debt obligations, which reduce their ability to withstand adverse financial events (Balliester Reis, 2022; Gjertson, 2016). Coinciding with the findings of Kass-Hanna *et al*. (2021) and Salignac *et al*. (2022), our results indicated that living in urban areas significantly enhances financial resilience compared to living in rural areas.

Respondent who lives in urban areas enjoys higher access to financial services due to the extensive penetration of financial markets and financial services in urban areas, while rural areas often suffer from exclusion from the mainstream financial market.

Surprisingly, we found that having an account in a financial institution does not affect financial resilience, but having a mobile money account does. A likely reason could be that the accessibility of mobile money accounts is more convenient for raising emergency funds than just having a financial account (Kass-Hanna *et al*., 2021). Furthermore, our study highlighted that saving in the past is positively related to financial resilience, while borrowing in the past is negatively related to financial resilience.

Savings for emergencies help in building a financial cushion at the time of financial shocks, while borrowing increases the financial burden, leading to higher financial vulnerability of the households (Klapper and Lusardi, 2020; Tinta *et al*., 2022). Furthermore, we found that age, employment status, and having a financial account did not significantly affect the financial resilience of the individuals in the BRICS countries.

CONCLUSION

Our research explored the level and determinants of financial resilience in the BRICS countries. To fulfill the objectives, the study relied on secondary data from the Global Findex Survey 2021.
The study found that the majority of the individuals cited an inability to come up with an emergency fund, indicating a low level of financial resilience in the BRICS countries. We found that adults in China faced the least difficulty raising an emergency fund, while India had the largest share of individuals facing high difficulty raising an emergency fund.

Most of the respondents in the BRICS countries relied on working and family, and friends to raise the funds. Russia and India showed more reliance on family and friends, while China had the highest percentage of individuals raising an emergency fund from their savings. Both South Africa and India also have the highest number of respondents indicating an inability to raise an emergency fund. We also found that females, respondents who were young and old, had completed primary education, had low income, were out of the workforce, and were living in rural areas, were more likely to face difficulty in raising an emergency fund.

Also, females, the old, the poor, out of the workforce, and rural respondents were more likely to raise an emergency fund from family and friends, while males, the young, and adults who had primary education showed more tendency to raise an emergency fund by working. Tertiary-educated and rich respondents showed a higher tendency to raise funds from their savings. Furthermore, the results of the ordinal regression showed that Gender, education, income, urbanicity, having a mobile money account, saving in the past, and borrowing in the past were significant predictors of financial resilience.

LIMITATIONS OF THE STUDY

Our study highlights valuable insights; however, certain limitations must be acknowledged. The reliance on only a period of data might limit its ability to establish a causal relationship. Our study focused only on socio-economic and financial determinants of financial resilience; however, behavioral, psychological, institutional, and social factors warrant future investigation. Therefore, future studies should address these gaps for a more enhanced understanding.

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