

Fintech-Based Financial Inclusion and Risk-Taking Behaviour of Financial Institutions: Evidence from South Asia

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Abstract

Fintech innovations enhance the financial system's stability and mitigate key stakeholders' risk propensity. However, a requirement persists for additional empirical evidence to validate the significant impact of fintech-based financial inclusion (FinFI) on the risk-taking tendencies of financial institutions (FIs) active in South Asian nations and the considerable differences in the relationship between fintech-based financial inclusion and the risk-taking behavior of financial institutions among the different countries in South Asia. While extensive research regarding fintech, financial inclusion, and financial institutions exists in various regions worldwide, there is a notable scarcity of studies focusing on South Asian countries such as Pakistan, India, Bangladesh, Nepal, and Sri Lanka. This study aims to bridge this gap by investigating fintech-based financial inclusion and the risk-taking behavior of financial institutions in South Asian countries over twelve years spanning from 2011 to 2022. The data collection process employed the convenience sampling method. However, other countries like Bhutan, Afghanistan, and Maldives are not included in the study population due to a lack of data. Additionally, we have utilized datasets from reputable sources, including the World Development Indicators, Global Financial Development, and Global Financial Inclusion databases for quantitative data collection. Panel data analysis is a statistical methodology used to examine and analyze the dataset of multiple entities observed over several periods. We evaluated the FinFI and analyzed its impact on mitigating risk-taking behavior among financial institutions. The reliability of our results has been confirmed through a comprehensive series of rigorous tests for robustness. The results of the analysis have proved that Fintech-based financial inclusion significantly impacts the risk-taking behavior of financial institutions regarding debit card ownership and debit card usage but insignificantly impacts with reference to mobile money accounts in South Asia. Moreover, the analysis proved that fintech-based financial inclusion positively impacts the risk-taking behavior of financial institutions, and there are significant differences in the relationship between fintech-based financial inclusion and the risk-taking behavior of financial institutions among the different countries in South Asia.

Introduction

Financial inclusion aims to facilitate access to formal economic systems at reasonable costs for unbanked, marginalized, and impoverished individuals (Munyegera & Matsumoto, 2016; World Bank, 2015). Evidence suggests that financial inclusion significantly reduces poverty and inequality. Therefore, financial inclusion is essential to economic advancement and substantially contributes to sustainable economic development inclusion boosts the capacity for savings, encourages investment, refines consumption habits, and raises the quality of life (Çelebi et al., 2010, Levine, 1997, Levine, 2005; World Bank, 2015).

FinTech refers to businesses or agents merging financial services with modern, sophisticated technologies (Navaretti et al., 2017). Financial institutions act as a mediator, collect surplus funds from depositors and provide

to those seeking financial support, and generate significant interest income during the procedure (Ghosh, 2015; Khan et al., 2020). The 2016 PWC report indicates that 59% of financial institutions are engaged with FinTech operations (Alt et al., 2018). In Southeast Asia, FinTech accounted for US\$345 million, representing 11% of the overall venture capital, as reported in 2016 by TechCrunch. Factors like a substantial unbanked population and burgeoning economies have also made these regions attractive to new market entrants (Saba et al., 2019). The rate of FinTech evolution varies significantly between developed and emerging economies.

In nations like the UK, USA, and Europe, FinTech has enhanced financial methods of conducting transactions, including automated trading based on algorithms, aiding managers in constructing more robust compliance systems for risk management, and refining digital payment systems for both local and international transactions (Arner et al., 2015). Conversely, in developing countries, the uptake of FinTech has been gradual despite the presence of development and enlargement prospects within the online economy (Ramanathan et al., 2020).

Fintech-based financial inclusion (FFI) has encountered formidable opponents despite a number of groundbreaking findings. At the national level, FFI mandates that nations build expensive technological infrastructure to guarantee an even distribution of financial inclusion (Barik & Sharma, 2019). Uneven infrastructure development encourages the "size" theory, according to which larger banks benefit most from fintech-based financial inclusion technology-arbitrage since they have greater liquidity and higher levels of technological investment (Bertay et al., 2013). Countries with higher-quality institutions are expected to invest more in fintech-based financial inclusion to achieve a higher level of financial stability (Ahamed & Mallick, 2019).

FinTech is increasingly regarded as a critical catalyst for financial inclusion. Mobile financial services are identified as the FinTech segment most likely to integrate those underserved by traditional banking into the regulated financial system, thus fostering more equitable economic development (Arner et al., 2020; Demirgüç-Kunt & Levine, 2018). Financial technology's ascent has markedly transformed the finance sector, altering banks' approaches to risk management. Fintech introduces innovative instruments and technologies that enhance financial institutions' abilities to evaluate and control risk, along with novel business models that diverge from conventional risk-taking strategies (Sajid et al., 2023a). FinTech often functions under the guidance of external entities, like banks or certified organizations, which builds a trust bond between the user and the provider (Nambiar & Lu, 2005; Wu & Zhang, 2017). Users' confidence and propensity for risk-taking may be affected by personal attributes such as education level, gender, and income (Alafeef et al., 2011). Trust involves a range of aspects, encompassing social, administrative, economic, and technical elements (Dirks & Ferrin, 2001; Ganzaroli et al., 1999). Partnerships between FinTech companies and financial service firms facilitate simple, flexible, and typically low-hazard frameworks for both sides to capitalize on each other's capabilities. Established financial entities, on their part, can utilize the innovations and technological advances introduced by FinTech startups while containing potential dangers as outlined in the collaboration contract. On the other hand, technology companies benefit from the financial support of established firms and potentially tap into their existing customer relationships and brands. At the same time, such collaborations offer significant prospects for both financial services and FinTech companies to recognize obstacles and cooperate in improving their services, thereby augmenting each other's strong points (Kelly et al., 2017). New specialized entrants and innovative business models have eroded the traditional barriers to entry in the banking sector, obscuring the boundaries between business and technology (Li et al., 2021).

Nevertheless, there is a limited amount of research conducted on the financial inclusivity facilitated by fintech and the risk appetite of financial institutions, which plays a crucial role in mediating the flow of financial resources and has a first-order impact on economic growth and development. This scarcity of information can be attributed to the unavailability of data about financial institutions and the innovative nature of fintech solutions being introduced to financial institutions. The research gap of the thesis is to inquire whether there is an increase or decrease in the risk-taking behaviour of financial institutions with the integration of fintech-based products and services in South Asia.

This research examined the questions of whether fintech-based financial inclusion could positively impact the risk-taking behavior of financial institutions in South Asia and there is significance of differences in the relationship between fintech-based financial inclusion and the risk-taking behavior of financial institutions among the different countries in South Asia.

There is a dearth of investigation on financial inclusion facilitated by fintech and the risk-taking actions of financial institutions in the region of South Asia. In South Asia large number of people are unbanked and underserved and have lack of access to formal financial services. However, less attention has been paid to fintech-based financial inclusion, notably among financial institutions. Possibly, this can be attributed to the unavailability of data concerning financial institutions and the innovative nature of fintech solutions being introduced to financial institutions.

Problem Statement

The integration of fintech-based products and services in South Asia is slow, and the opportunities for improvement and growth in the digital economy of South Asia are present (Jahanshahi et al., 2020). In financial institutions especially, it has received little attention, and the same for Pakistan. This could be due to limited data on financial institutions and the introduction of fintech solutions are slow, which are novel in financial institutions. The research investigates the usage of fintech goods and services to improve bank operational efficiency by cutting transaction costs and adopting the risk-taking behaviour of financial institutions and it also analyzes the risk-taking behaviour of financial institutions grows or decreases by adopting fintech solutions (Sajid et al., 2023b).

Literature Review

Financial inclusion refers to delivering accessible and reliable financial services to underserved and low-income populations. Furthermore, it encompasses insurance products, credit facilities, improved access to financial services, the availability and utilization of bank accounts, payment methods, investments, and savings options (Kpodar & Andrianaivo, 2011).

Fintech involves employing mobile devices, computers, and digital technologies to manage financial services, thereby transforming the operations of financial organizations. Technological advancements have reduced reliance on traditional financial institutions (Chanson et al., 2018; Chuen & Teo, 2015; Lee & Shin, 2018; Noreen et al., 2022a).

Fintech increases banking risks, jeopardizing customer protection and the financial sector's efficiency and stability. While fintech diminishes transaction costs and augments banking efficiency, it also introduces several risks, including technological, systemic, and operational hazards (Elia et al., 2023). Deng and team investigated the impact of financial technology on the risk-taking tendencies of banks, examining data from 155 smaller and medium-sized banking institutions and deducing that the progression of financial technology diminishes these tendencies (Deng et al., 2021). Effective diversification can benefit banks, especially when the diversified activities are less risky and more profitable. Ahamed, discovered that a rise in non-interest income boosts risk-adjusted earnings in Indian banking institutions and favourably affects their risk behaviours (Ahamed, 2017).

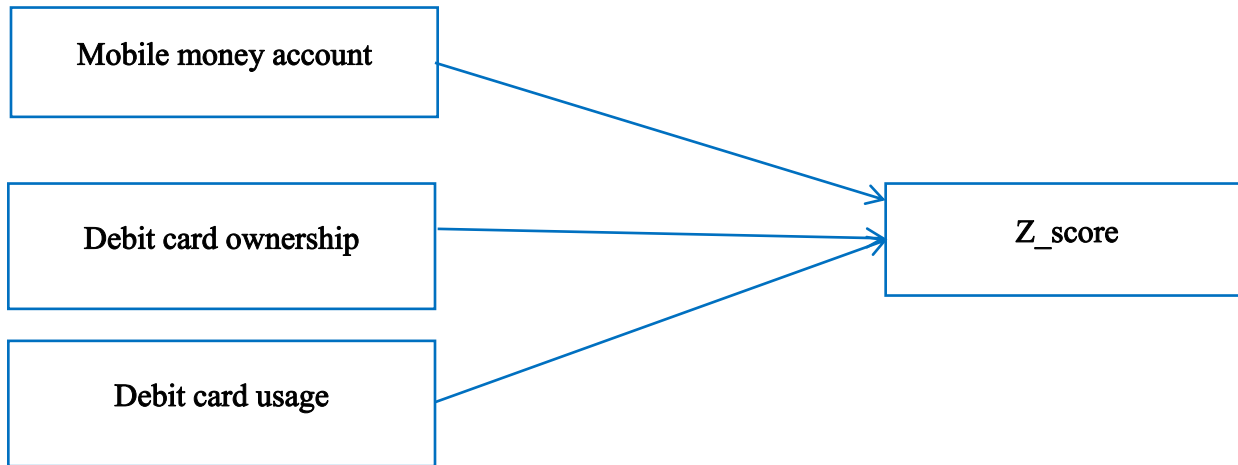
The relationship between financial technology services and risk-taking behaviours in banks has been a focus of study (Deng et al., 2021; Hu et al., 2022). Fintech's development notably diminishes risk-taking behaviors in commercial banks. Larger banks, with their superior financial infrastructure and risk mitigation capabilities, demonstrate a more pronounced effect in risk reduction through fintech adoption. Concurrently, the study of Liao explored Internet finance's impact on commercial bank risk-taking, finding a positive and significant correlation (Liao, 2018).

The hypotheses of the research based on that fintech based financial inclusion has positive impact on risk taking behaviour of financial institutions in South Asia and there is a significant difference in the relationship between fintech-based financial inclusion and the risk-taking behavior of financial institutions among the different countries in South Asia.

Conceptual framework

Independent variables

Dependent variable



Theoretical framework

In their study, Senyo et al., 2020 integrated the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) with the prospect theory to examine the factors that precede financial inclusion via mobile money services. Their findings indicate that perceived risk has a detrimental impact on mobile money services, whereas increasing trust in mobile money services encourages the adoption of fintech innovations (Banna et al., 2022). The Technology Acceptance Model (TAM) elucidates the reason behind people's acceptance, especially amid the Covid-19 pandemic (Le, 2021). The Covid-19 crisis has amplified the opportunities for collaboration between banks and fintech firms. To be competitive, financial institutions constantly adapt and use digital products. In this era of technological advancements, banks actively engage in the integration of fintech products by allocating a portion of their capital towards investments in fintech startups. They also establish partnerships to leverage the platforms offered by fintech companies (Sajid et al., 2023).

Variables Measurement

S.No	Variables	Definition	Measurement	References	Data Source
1	Mobile money account	Mobile money accounts refer to digital financial accounts that can be accessed through mobile devices, enabling users to engage in a range of financial activities such as transfers, payments, and other financial services. These services are facilitated either by mobile network operators or financial institutions.	Percentage of transactions through mobile money account.	(Suri & Jack, 2016)	Global Financial Inclusion

2	Debit card ownership		Ownership of a debit card pertains to the possession of a payment card issued by a financial institution, which is connected to a bank account and facilitates electronic transactions, cash withdrawals, and various other financial operations for individuals or entities.	The percentage of individuals possess debit card within a specific population.	(Greene & Shy, 2022)	Global Financial Inclusion
3	Debit card usage		A debit card is a payment card that deducts funds directly from the checking account.	The percentage of individuals uses debit card within a specific population.	(Swarnalaks hmi & Krishna, 2023)	Global Financial Inclusion
4	Z-Score	Return on Assets	The phrase return on assets (ROA) denotes a financial metric illustrating a company's profitability concerning its overall asset base.	$ROA = \frac{Net\ Income}{Total\ Assets} \times 100$	(Charumathi, 2012)	World Development Indicator, Global Financial development
		Capital to Assets Ratio	The capital-to-asset ratio calculates a company's assets and capital to determine whether there is enough capital to cover the assets, expressed as a percentage.	The bank capital is divided by the risk-weighted assets.	(Charumathi, 2012)	World Development Indicator

Research Methodology

The philosophy of the research believes that there are single realities that can be measured; therefore, it mostly relies on a quantitative method to measure that fact. The current study is looking forward to testing the proposed hypothesis; hence, it is consistent with positivism philosophy. The focus demographic for this research encompasses individuals who use fintech-based financial inclusion services within financial institutions of South Asian countries.

The study's sample comprises fintech users from five South Asian countries: Pakistan, India, Bangladesh, Nepal, and Sri Lanka. Additionally, the data collection process employed the convenience sampling method. However, other countries like Bhutan, Afghanistan, and Maldives are not included in the study population due to a lack of data.

This study offers a thorough analysis and synthesis of information and data spanning the most recent twelve-year period, 2011-2022, thereby providing a comprehensive understanding of the subject matter under investigation.

Data collection method

As our study encompasses variables related to financial institutions, we sourced this data from the World Development Indicators (WDI) and Global Financial Development database. To calculate the risk-taking behaviours of financial institutions, the present study will use the Z_ score as a proxy, which is a conventional method to calculate risk-taking behaviour. The following formula can be used to calculate it:

$$Z_score = \frac{ROA_{it} + CTA_{it}}{\sigma(ROA)_{it}}$$

Where, ROA_{it} presents return on assets, CTA_{it} presents the capital to assets ratio.

The variables employed to measure fintech-based financial inclusion encompass mobile money account, debit card ownership, and debit card usage.

Data Analysis Technique

The outcome of the Hausman test indicates that the random effect model is suitable for analysis. The p-value associated with the cross-section random effect which is more than 0.05 shows that the random effect model is suitable rather than fixed effect model. Descriptive analysis is used to investigate the how positively fintech-based financial inclusion impact the risk-taking behaviour of financial institutions in South Asia and what are the significance of differences among the different countries in South Asia.

Results & Findings

Results

Fintech-based financial inclusion and risk-taking behaviour of financial institution cross-section random effect

Table 1: Cross-section random effect

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.416347	3	0.3318

The outcome of the Hausman test indicates that the random effect model is suitable for analysis. This determination stems from the observation that the p-value associated with the cross-section random effect is 0.3318, surpassing the significance level of 0.05.

Fintech-based financial inclusion and risk-taking behaviour of financial institution relationship between independent and dependent variables

Table 2: Relationship between independent and dependent variables.

Dependent Variable: Z_SCORE

Method: Panel Least Squares

Date: 02/14/24 Time: 16:49

Sample (adjusted): 2011Q1 2022Q1

Periods included: 45

Cross-sections included: 5

Total panel (balanced) observations: 225

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MMA	-0.002564	0.001421	-1.804106	0.0726
DCO	0.730368	0.334581	2.182933	0.0146
DCU	-0.226322	0.092563	-2.44506	0.0073
C	26.90295	3.002665	8.959689	0.0000

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.693487	Mean dependent var	28.07647
Adjusted R-squared	0.683600	S.D. dependent var	13.81051
S.E. of regression	7.768340	Akaike info criterion	6.972898
Sum squared resid	13095.32	Schwarz criterion	7.094360
Log likelihood	-776.4511	Hannan-Quinn criter.	7.021921
F-statistic	70.13771	Durbin-Watson stat	2.157560
Prob(F-statistic)	0.000000		

The study examines the relationship between variables, focusing on Mobile Money Account (MMA) and Debit Card Ownership (DCO). The probability coefficients are found to be insignificant, indicating MMA's inability to determine Z-score. Debit Card Ownership and Debit Card Usage significantly impact Z-score. The model's performance is 69.3% fit according to R-squared and 68.3% fit according to Adjusted R-square, but negative autocorrelation in the dataset highlights its limitations.

Table 3: Comparison between independent and dependent variables between five countries of South Asia

Country	Debit card ownership	Debit card usage	Mobile money account	Z_Score
INDIA	1.436	0.308	639.015	18.224
NEPAL	8.325	3.839	228.410	42.383
PAKISTAN	0.338	0.476	228.419	18.555
SRILANKA	4.578	1.832	385.793	41.761
BANGLADESH	2.967	2.703	447.331	19.459

The panel data reveals the financial inclusion of South Asian countries in terms of debit card ownership, usage, mobile money account balances, and risk-taking behavior. Nepal has the highest debit card ownership rate (8.325), followed by Pakistan (0.338). Mobile money accounts are growing, with Bangladesh and India showing

the highest mean values (639.015). Nepal has the highest risk-taking behavior (42.383), followed by Sri Lanka (41.761). Bangladesh, India, and Pakistan have the lowest Z_Scores (19.4459, 18.224, 18.555).4.1.4 The influence of fintech-driven financial inclusion on the taking behaviour of financial institutions regarding the comparison between independent variables and dependent variables.

Fintech-based financial inclusion and risk-taking behaviour of financial institution with reference to descriptive statics of the independent variables with dependent variables of Bangladesh

Table 4: Descriptive statics of the independent variables with dependent variables of Bangladesh.

	<i>Debit card ownership</i>	<i>Debit card usage</i>	<i>Mobile money account</i>	<i>Z_Score</i>
Mean	2.967	2.703	447.331	19.459
Standard Error	0.101	0.018	44.694	0.504
Median	2.941	2.728	438.839	18.463
Standard Deviation	0.679	0.119	299.817	3.379
Mean Deviation	4.370	22.714	1.492	5.759

Bangladesh's debit card ownership rate is moderate, indicating a growing acceptance of debit cards as a preferred financial transaction mode. The mean usage rate is high, with a mean deviation of 22.714, indicating diverse usage patterns. The mean mobile money account balances are notable, with a mean deviation of 447.331. The Z_Score, representing financial risk-taking behavior, is moderate, with a mean Z_Score of approximately 19.459. The distribution of Z_Scores is slightly left-skewed, with a median value of 18.463, suggesting some institutions exhibit lower risk-taking behavior. The moderate variability in risk-taking behavior across financial institutions is also evident, with an average deviation of 5.759. These findings highlight the diversity in risk profiles among financial institutions in Bangladesh, indicating variations in their approaches to managing financial risks.

Fintech-based financial inclusion and risk-taking behaviour of financial institution concerning descriptive statics of the independent variables with dependent variables of Sri Lanka

Table 5: Descriptive statics of the independent variables with dependent variables of Sri Lanka.

	<i>Debit card ownership</i>	<i>Debit card usage</i>	<i>Mobile money account</i>	<i>Z_Score</i>
Mean	4.578	1.832	385.793	41.761
Standard Error	0.096	0.105	47.824	2.215
Median	4.622	1.684	328.896	35.241
Standard Deviation	0.645	0.702	320.815	14.862
Mean Deviation	7.097	2.608	1.203	2.810

Sri Lanka has a high level of debit card adoption, with a mean ownership of approximately 4.578. The majority of individuals possess a debit card, slightly higher than the mean. Debit card usage is moderate, with a mean usage of 1.832. Mobile financial services adoption is moderate, with a mean mobile money account balance of 385.793. The mean Z_Score of financial institutions in Sri Lanka is 41.761, indicating a high level of risk-taking. The mean Z_Score is slightly left-skewed, with moderate variability across institutions. The mean deviation of 2.810 highlights variability in risk profiles among these institutions.

Fintech-based financial inclusion and risk-taking behaviour of financial institution with reference to descriptive statics of the independent variables with dependent variables of Pakistan

Table 6: Descriptive statics of the independent variables with dependent variables of Pakistan.

	<i>Debit card ownership</i>	<i>Debit card usage</i>	<i>Mobile money account</i>	<i>Z_Score</i>
Mean	0.338	0.476	228.419	18.555
Standard Error	0.009	0.032	26.642	0.498
Median	0.313	0.469	215.119	17.475
Standard Deviation	0.058	0.217	178.723	3.342
Mean Deviation	5.817	2.200	1.278	5.551

Pakistan's population has limited adoption of debit cards, with a low mean ownership of 0.338. The majority do not own a debit card, with a median value of 0.313. Debit card usage is moderate, with a mean usage of 0.476. Mobile money account balances are moderate, with a mean balance of 228.419. The risk-taking behavior of financial institutions in Pakistan is moderate, with a mean Z_Score of 18.555. The mean Z_Score is slightly left-skewed, with a median Z_Score of 17.475. Moderate variability in risk profiles among financial institutions is evident, with a mean deviation of 5.551.

Fintech-based financial inclusion and risk-taking behaviour of financial institution with reference to descriptive statics of the independent variables with dependent variables of Nepal

Table 7: Descriptive statics of the independent variables with dependent variables of Nepal.

	<i>Debit card ownership</i>	<i>Debit card usage</i>	<i>Mobile money account</i>	<i>Z_Score</i>
Mean	8.325	3.839	228.410	42.383
Standard Error	0.228	0.375	22.651	1.115
Median	8.220	3.212	227.572	42.319
Standard Deviation	1.530	2.518	151.950	7.482
Mean Deviation	5.443	1.524	1.503	5.664

Nepal has a high mean debit card ownership rate of 8.325, with a moderate standard deviation of 1.530. The majority of individuals own a debit card, slightly lower than the mean, but there is variability in ownership levels across the population. Debit card usage is significant, with a mean usage of 3.839. Mobile financial services are

moderately adopted, with a mean mobile money account balance of 228.410. The risk-taking behavior of financial institutions in Nepal is high, with a mean Z_Score of 42.383, indicating a high level of risk-taking. However, the mean deviation of 5.664 indicates variability in risk profiles among financial institutions in Nepal.

Fintech-based financial inclusion and risk-taking behaviour of financial institution with reference to descriptive statics of the independent variables with dependent variables of India

Table 8: Descriptive statics of the independent variables with dependent variables of India.

	<i>Debit card</i>		<i>Mobile money</i>	<i>Z_Score</i>
	<i>ownership</i>	<i>Debit card usage</i>	<i>account</i>	
Mean	1.436	0.308	639.015	18.224
Standard Error	0.059	0.008	105.885	0.248
Median	1.395	0.325	332.729	17.297
Standard Deviation	0.397	0.054	710.295	1.663
Mean Deviation	3.618	5.751	0.900	10.958

India has a low mean debit card ownership of 1.436, indicating limited adoption of debit cards among the population. The majority do not own a debit card, with a median value of 1.395. The mean usage of debit cards is 0.308, with a moderate standard deviation of 0.397. The mean mobile money account balance is 639.015, indicating significant adoption. However, there is uncertainty in estimating the mean, with a left-skewed distribution of account balances and a substantial standard deviation of 710.295. The mean Z_Score of financial institutions in India is 18.224, indicating moderate risk-taking, with a slightly left-skewed distribution and a moderate standard deviation of 10.958.

Discussion

The findings indicate that Mobile Money Account (MMA) does not significantly influence the Z_score, while Debit Card Ownership (DCO) and Debit Card Usage (DCU) exhibit significant effects on the Z_score. It indicates that those countries which show an increase in debit card ownership and usage have a more favourable Z_score, showing higher risk-taking behaviour between financial institutions. Similar results were documented in the studies of Banna et al. (2022); Rahman et al. (2018) which used the same proxies, ran the Hausman test, and the random effect model which showed the same results. The same results documented in the previous study of Bokpin (2016) which used the same test but the findings are significantly influenced risk-taking positively and it has a fixed effect model. According to findings, there is a positive correlation between fintech-based financial inclusion efforts and heightened taking part in formal financial services. The hypothesis based on Fintech based financial inclusion has a positive impact on the risk-taking behaviour of financial institutions in South Asia is supported by data analysis, but the impact of this is different from country to country, which suggests the need for strategies which tackle the particular challenges and take advantage of opportunities for the enhancement of financial inclusion while controlling the risk associated with it proficiently. Our results contradict the findings of Danisman and Tarazi (2020) which show that more digital payments reduce the bank's risk.

There is a variation in results across South Asian countries. According to data analysis of Nepal, debit card ownership and usage rates are particularly high, which shows the high adoption of financial services. On the contrary, Pakistan and India display low debit card ownership and usage levels, which indicates difficulties in accessing financial institutions' services. Sri Lanka exhibits significant progress in fintech-based financial inclusion. On the other hand, Bangladesh exhibits a high level of mobile money accounts, which indicates the progress in fintech-based financial inclusion. With respect to risk taking behaviour, relatively high Z_scores of Nepal and Sri Lanka indicates higher propensity for taking risk among financial institutions. Contrarily, Bangladesh, Pakistan and India display moderate Z_score which indicates a lower propensity for risk taking among financial institutions. The results contradict the previous studies Ahamed & Mallick, 2019, Banna, 2020,

where same variables mobile money account is used and Z_score is used a proxy and showed more stability, and less risk-taking. Overall, it suggests that some countries have made good progress in fintech-based financial inclusion, but other countries still need to work on it and adopt it. The differences highlight the customized financial policies needed and actions to improve the penetration of banking and financial services, especially in lower adoption areas. The variation in risk-taking behaviour of financial institutions among different countries in South Asia highlights the significance of regulatory oversight and financial education in promoting a more comprehensive and steady financial environment in South Asia. In conclusion, the random effect model and descriptive analysis shed light on factors affecting financial stability and give valuable perspectives for policymakers and financial institutions in South Asia.

Conclusion

In results, Sri Lanka and Nepal showed high mean of Z_score , which indicates a greater willingness to take risks in financial institutions. India, Bangladesh, and Pakistan show moderate to lower mean values of Z_score , indicating the old-fashioned approach to risk-taking. This emphasizes the part of Fintech that takes risks for financial institutions by making easier access to new markets, increasing operational efficiency, and improving the practices of risk management. There is a notable variation in the matrices of financial inclusion and risk-taking behaviour of financial institutions across the selected countries.

The effect of Fintech on the risk-taking behaviour of financial institutions is different in each country and depends on contextual factors like regulatory environment, maturity of the market, and preferences of the consumers. The findings depict the importance of Financial technology in operating financial inclusion and giving shape to the risk-taking behaviour of financial institutions in South Asia.

Constraints and Suggestions

It is a fact that there is a lack of research in every field, and over time, new knowledge and research have started to succeed in solving those deficiencies. The research is based on three independent variables, the reason behind which is the limited and non-availability of data. In the future, other researchers can conduct research on other variables to check the impact of those variables. Policymakers and financial regulators can benefit from it by encouraging the adoption of fintech, increasing financial inclusion, and encouraging a favourable environment for sustainable risk-taking in South Asia. Moreover, the observed differences among countries highlight the need for tailored approaches that account for local dynamics and challenges, thereby maximizing the potential benefits of fintech while mitigating associated risks.

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