

Corporate Social Responsibility, Innovation Capabilities, and Firm Performance: A FinTech Perspective

Ali Mardan¹, Maryam Bibi², Basharat Khan³, Irtiqua Ameer⁴

¹ Institute of Banking & Finance, Bahauddin Zakariya University, Email: mardan.q@gmail.com

² PhD Scholar, Asia e University, Email: bibim817@gmail.com

³ PhD Hazara University Mansehra, KPK Pakistan Email: basharatmaju@gmail.com

⁴ Lahore Garrison University, Email: ameer.irtiqua@gmail.com

DOI: <https://doi.org/10.70670/sra.v3i2.767>

Abstract

In the evolving landscape of business sustainability, Corporate Social Responsibility (CSR) has emerged as a critical strategic tool, especially in the financial sector. This study investigates the impact of CSR on firm financial performance (FP) within the banking industry of Pakistan, while examining the mediating role of innovation capabilities (IC) and the moderating role of financial technology (FinTech). CSR is conceptualized through environmental, social, and governance (ESG) dimensions, and its influence on performance is assessed through both direct and indirect pathways. Drawing on dynamic capability's theory, stakeholder theory, and the resource-based view, the study employs a quantitative, cross-sectional research design using data from 366 top management respondents from commercial banks. The findings indicate a significant positive relationship between CSR and firm performance, underscoring the strategic value of responsible business practices. Innovation capabilities were found to partially mediate this relationship, highlighting that CSR fosters internal knowledge sharing, stakeholder collaboration, and learning, which in turn stimulate innovation and lead to enhanced performance outcomes. However, contrary to expectations, FinTech did not significantly moderate the CSR–FP relationship. Although FinTech adoption showed a positive association with performance, its interaction with CSR lacked statistical significance, suggesting that the integration of CSR and FinTech is not yet strategically aligned in the sample firms. These results suggest that while CSR and FinTech individually contribute to firm performance, the synergy between them may require more deliberate organizational alignment. The study contributes to CSR literature by clarifying the internal mechanisms linking CSR to performance and calls for greater emphasis on innovation and technological coordination in CSR strategies. The findings offer practical insights for bank managers and policymakers seeking to leverage CSR for sustainable financial success through innovation-led initiatives.

Keywords: Corporate Social Responsibility, Innovation Capabilities, Financial Technology, Firm Performance, Dynamic Capability Theory

Introduction:

In recent years, the business environment has experienced a transformative shift in how firms approach corporate governance, social engagement, and environmental responsibilities. Firms are increasingly integrating Corporate Social Responsibility (CSR) into their core strategies as a response to growing stakeholder expectations and broader societal concerns. CSR is no longer

viewed merely as a philanthropic endeavor but as a strategic asset that can influence long-term business performance (McWilliams & Siegel, 2011). This paradigm shift has been particularly visible in financial sectors, where the alignment of business objectives with social and environmental values is becoming a competitive necessity (Porter & Kramer, 2022).

The banking industry, often perceived as an intermediary with limited direct environmental or social impact, is now under greater scrutiny for its broader role in sustainability. Banks consume considerable resources and play a pivotal role in financing sectors that may have high environmental footprints (Liu et al., 2021). As a result, stakeholders, including regulators, customers, and investors, expect financial institutions to lead in CSR engagement. However, the effect of CSR initiatives on firm performance is still a contested issue in academic literature. Some studies find a positive relationship between CSR and financial performance (Margolis et al., 2009), others report negative or non-significant associations (Mittal et al., 2008; Schreck, 2023). This inconclusiveness suggests that the relationship may be more complex, potentially involving mediators and moderators that influence the impact of CSR on firm outcomes. One such potential mediator is innovation capability. CSR activities can foster internal processes that lead to innovation by improving stakeholder relationships, enhancing corporate reputation, and promoting organizational learning (Barnett & Salomon, 2024). Innovation capabilities, defined as a firm's ability to apply knowledge and technology to develop new products, services, or processes, are increasingly recognized as a strategic resource under the resource-based view of the firm (Barney, 1991). Through CSR, firms can gain intangible assets such as trust, legitimacy, and goodwill, which may contribute to enhanced innovation efforts. For instance, investments in environmental initiatives may stimulate product innovation that reduces ecological impact, while social programs might improve employee morale and creativity, leading to process improvements (Shabbir, 2018a).

Parallel to the rise of CSR is the emergence of financial technology (FinTech), which is reshaping financial services through digital innovation. FinTech covers the use of peer-to-peer lending platforms, blockchain, mobile banking and artificial intelligence for financial analysis. Because of these technologies, financial services are becoming more efficient, available to more people and inclusive (Románova & Kudinska, 2016). FinTech also supports performance by reducing the costs of making transactions, raising customer satisfaction and generating extra revenue (Yang, 2024). Within CSR, FinTech can help to improve or reduce the link between CSR and performance by working well with the firm's CSR and innovation strategies. Liu et al. (2021) carried out a study to examine how FinTech helps explain the effect of CSR on the financial results of Chinese banks. Both authors noted that FinTech helped increase return on equity and nominal interest margin profit. Still, the study did not look closely enough at how innovation improves the link between the two which leaves a gap in our understanding of the mechanisms at work. The linear methods did not find a strong influence of CSR scores on performance, but the nonlinear models proved otherwise. This shows that the connection is not simple and it might be affected by innovative.

Moreover, CSR in the banking sector often involves multiple dimensions, including environmental (ENV), social (SOC), and governance (GOV) disclosures. Liu et al. (2021) demonstrated that among these, governance disclosures showed the strongest and most consistent positive effect on financial performance. Social and environmental disclosures showed inconsistent or insignificant effects unless modeled nonlinearly. This further underscores the need to understand how CSR initiatives are operationalized within firms, particularly how they influence innovation and how technological adoption, such as FinTech, modifies these effects. Despite growing empirical interest, many studies still fail to consider these complex interactions. While stakeholder theory suggests that addressing stakeholder concerns through CSR can enhance legitimacy and profitability (Freeman, 2010), and the legitimacy theory argues that firms gain social acceptance and survival by aligning with societal norms (Siueia et al., 2019), these

frameworks do not sufficiently address the internal mechanisms through which CSR translates into performance. Innovation capability, as posited by the dynamic capabilities' framework, could be one such mechanism that enables firms to adapt CSR into actionable performance outcomes (Teece, Pisano, & Shuen, 1997).

Understanding the mediating role of innovation and the moderating role of FinTech is particularly important in emerging markets, where institutions often face resource constraints and technological gaps. For instance, Liu et al. (2021) used P2P lending platforms as a proxy for FinTech development in Pakistan, showing that the expansion of digital platforms corresponded with improvements in certain performance metrics. These findings suggest that FinTech not only serves as a delivery mechanism for financial services but also interacts with CSR activities to influence firm outcomes. Given these observations, the present study aims to explore how CSR affects firm performance through innovation capabilities and how FinTech moderates these effects. The study seeks to answer: to what extent do innovation capabilities mediate the relationship between CSR and firm performance, and how does FinTech modify this relationship? By addressing these questions, the research contributes to a more nuanced understanding of the CSR–performance link, moving beyond simple direct relationships to a more integrated view that considers organizational capabilities and external technologies.

As financial institutions face increasing regulatory and societal pressure to demonstrate responsible behavior, understanding how CSR can be strategically aligned with innovation and technological adoption is critical. Insights from this research could help managers in the banking sector develop more effective CSR strategies that not only fulfill ethical obligations but also drive innovation and financial performance. Furthermore, the study offers value to policymakers by highlighting the importance of digital infrastructure and regulatory frameworks that support FinTech and CSR integration. The research is also expected to contribute to academic literature by integrating concepts from resource-based theory, stakeholder theory, and innovation management. It builds on the empirical findings of Liu et al. (2021) by incorporating innovation capabilities as a mediator and FinTech as a moderator, two variables that have often been studied earlier but this type of relation has not been studied yet. This perspective may reveal interdependencies that are otherwise obscured in isolated analyses.

Theoretical Foundation

Academics have been discussing which perspective can best describe how corporate social responsibility (CSR) and firm performance are related, even in the presence of innovation and FinTech. Over the past few years, people have suggested several theories, including stakeholder theory, legitimacy theory, resource-based view (RBV) and institutional theory. They each describe a different way to study CSR and explain its effects on organizations' performance. These recent changes in business, driven mainly by fast technological development and innovation, have encouraged scholars to consider newer and more unified business theories.

Some people believe stakeholder theory is necessary because it addresses the requirements of people like customers, employees and investors (Freeman et al., 2021). So, companies often do CSR to support their stakeholders and could ultimately improve their position and earning capacity. It is argued by some that following the standards set by society serves as an official measure and affects a firm's degree of success (García-Sánchez et al., 2022). While both ideas are related to CSR, neither really addresses how innovation matters and considers the impact of FinTech. In the resource-based view (RBV), it is argued that CSR is not only beneficial, but also an unquantifiable resource. This view holds that through CSR, companies can develop important and special resources, for example, brand loyalty and engaged employees which help lift the firm's overall performance (Khan et al., 2023). Still, some critics state that RBV mainly focuses on what the firm can do and not enough on outside influences such as changes in technology or the market.

Since technology is playing a bigger role and business structures are getting more complicated, DCT explains things more thoroughly. The Drugstore Theory (DCT) looks at a firm's ability to integrate, build and reconfigure competencies both inside and outside the organization as the environment changes (Teece, 2021). It fits well with the proposed model presented here. Working on CSR can help develop new strategies that improve capabilities, especially when joined with innovation. Those organizations that practice CSR satisfy their stakeholders and also gain new information, create reliable networks and encourage staff to think creatively. Because of these items, the company's innovation process becomes more flexible and ready to respond. The evolution of FinTech makes it best fit within this existing framework. It comes with new possibilities and problems for companies that need them to change their approaches and operations. When banks integrate FinTech, it boosts the success of their responsible actions and fosters new ideas by boosting efficiency, catering to groups ignored before and making things clearer (Lee & Shin, 2022). So, DCT helps us understand that better firm performance results from CSR, internal invention and external technology.

Hypotheses Development:

There has been extensive debate among scholars and practitioners regarding the impact of Corporate Social Responsibility (CSR) on a firm's financial performance. Some scholars argue that CSR helps a firm's value by improving relationships with stakeholders, raising its reputation and providing access to resources, yet others state that it can be financially costly and may not show rewards near immediate outcomes. Different theoretical perspectives and data collection methods in each study cause this disagreement. Prior literature gave conflicting results, with a few highlighting positive connections (e.g., higher earnings, greater return on equity) and some suggesting no changes or even deterioration (Schreck, 2011). More and more, research is finding that embedding CSR in how a firm runs its business can lead to stronger financial outcomes (Khan et al., 2022). The change involves more businesses seeing CSR as a chance to gain an edge, especially when it matches what their stakeholders expect and the larger goals for sustainability (Jiang et al., 2021).

Nowadays, firms have to address the increased awareness and concern about social and environmental matters from consumers, investors and regulators. Ethical labor, concern for the environment and community-based activities are now important parts of what defines a company's identity and risk management plan. This type of approach can result in increased loyalty from customers, belief in the company from investors and happier staff which all help the firm perform better (Nguyen et al., 2023). In addition, CSR plays a role in revealing information which makes it easier for others to see what a company does, leading to more confidence in the market and lower costs for borrowed funds (Yousaf et al., 2022). In very competitive and regulated industries such as banking and finance, CSR makes a company stand out and helps secure its long-term financial performance. Since CSR is now understood differently, it is valuable and relevant to look at the connection between CSR and company financial success, mainly in situations where economies are rapidly changing. Consequently, using recent literature and theoretical knowledge, the following hypothesis has been suggested:

H1: Corporate Social Responsibility has a positive impact on firm financial performance.

The relationship between Corporate Social Responsibility (CSR) and financial performance (FP) has been extensively studied, yet the underlying mechanisms through which CSR affects firm outcomes remain a subject of debate. Some experts state that the positive effects of CSR on a company's finances happen through various steps within the organization, including innovation (Porter & Kramer, 2019). Some claim that CSR usually promotes innovation less than companies claim, mainly where CSR is seen as a set of external rules rather than a key business objective. Other recent studies stress that innovation plays a key part in connecting CSR with

positive business results (Duque-Grisales et al., 2022). Because of this shift, corporations view CSR as important to their flexibility, growth and ability to compete in the long run.

Working on CSR promotes teamwork, stakeholder relationships and knowledge sharing which supports innovation efforts. Whenever firms explore CSR, they gain a better understanding of what society wants from them which normally contributes to coming up with fresh ideas and improving their products and services. Thus, corporate social responsibility helps build an atmosphere of openness, ethical behavior and knowledge flow that boosts creativity and fuels innovation (Wang et al., 2021). Actively working towards environmental and social impact helps firms increase their investment in green products, ideas from employees and solutions for their communities which lead to better innovation performance (Martínez-Conesa et al., 2023). With such ability to innovate, businesses are able to turn what they do for society into profits. Especially when facing speedy technological changes or new demands from stakeholders, organizations rely on innovation to remain competitive. Based on this, the below hypothesis demonstrates how innovation capabilities act as a mediator in the relation between CSR and financial performance:

H2: Innovation capabilities mediate the relationship between Corporate Social Responsibility and firm financial performance.

The link between Corporate Social Responsibility (CSR) and financial performance (FP) continues to be a subject of academic and managerial debate. While some see CSR as helping companies to build good stakeholder relationships, strengthen their image and boost their value by cutting risks, the earnings from it can vary widely. Due to the different outcomes found, researchers have looked into factors that can impact the relationship between CSR and firm performance. Another important aspect is new technology, particularly in financial technology (FinTech) which is changing business models, customer demands and work efficiency in both financial and non-financial sectors. Many argue that FinTech increases clarity, performance and customer connection, so it can work with CSR activities and improve the financial results (Zhang et al., 2022). According to some, using money on technology may reduce support for social initiatives and sometimes add risks that reduce CSR's positive effect (Nguyen et al., 2021). Because of this, it is important to keep exploring how FinTech influences the connection between CSR and FP.

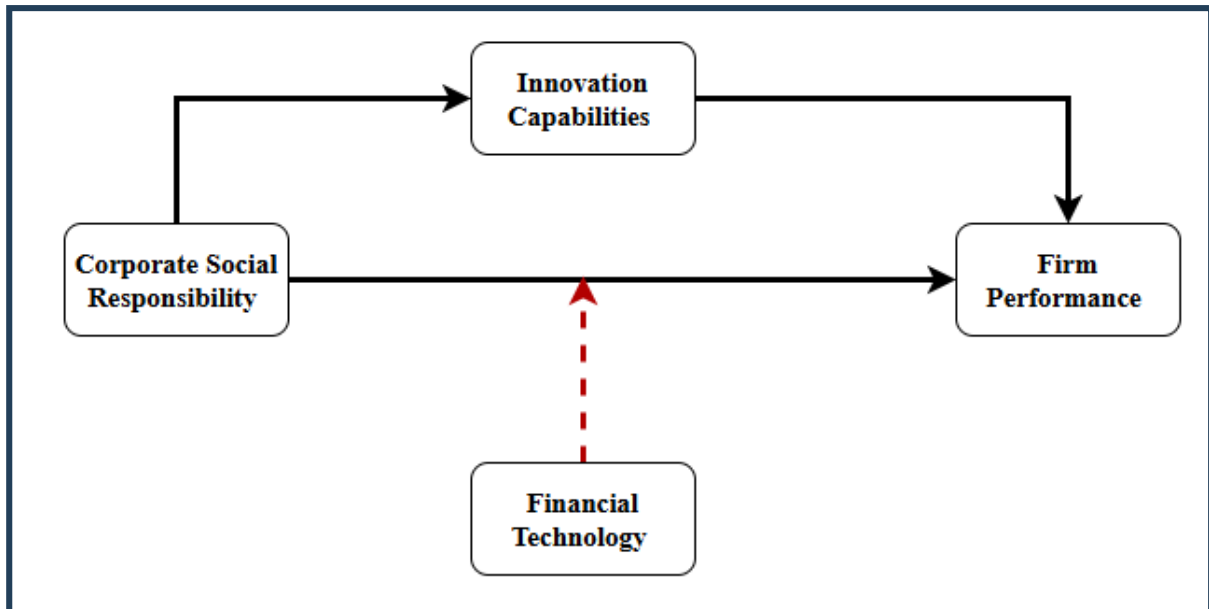
FinTech, defined as the use of innovative technologies in delivering financial services, can shape how CSR efforts are perceived and implemented by firms. By using digital tools, analyzing data and automating processes, FinTech helps firms involve their stakeholders better, improve reports and lower costs in operations—all of which can boost the success of CSR efforts (Lee & Shin, 2022). Thanks to FinTech, it becomes simpler to accurately share and communicate CSR results which helps to build trust with various stakeholders. Using FinTech allows companies to immediately adapt their CSR strategies to follow new guidelines which makes CSR more significant for the company. Studies in recent times show that firms which use technology usually accomplish better CSR results, on average (Yin et al., 2023). At this level, FinTech supports the company in following CSR activities and checking their effect on finances. It uses digital solutions to ensure good resource allocation, keeps everyone informed and enables a quick response to new market trends. So, FinTech is important as it affects and directs the results of CSR efforts. For that reason, the hypothesis could be proposed:

H3: Financial technology positively moderates the relationship between Corporate Social Responsibility and firm financial performance.

Theoretical model

The theory states that having CSR positively influences how well a firm does financially and that this effect is influenced by innovation abilities and worked through financial technology (FinTech). Having a clear CSR strategy encourages positive relationships with all stakeholders and promotes moral behaviour, helping the company earn growth and profits over the years.

Innovation capabilities which convert CSR actions into new products, new process ideas and new services that enhance a business's competitiveness and value. CSR supports new approaches which eventually make the company perform better. FinTech affects the CSR–FP connection by improving or reducing the results of CSR according to the digital technology. Firms leveraging FinTech can better implement, monitor, and communicate CSR efforts, making these initiatives more impactful. This model integrates dynamic capabilities theory, suggesting that firms must continuously adapt and realign internal competencies (like innovation) and external technologies (like FinTech) to convert CSR efforts into superior financial performance in a fast-changing business environment



Methodology:

This study employs a quantitative, cross-sectional research design to investigate the relationship between Corporate Social Responsibility (CSR) and firm financial performance (FP), with innovation capabilities as a mediator and financial technology (FinTech) as a moderator. Because the banking sector on the Pakistan Stock Exchange (PSX) is engaged in a lot of CSR activities and is rapidly increasing its investments in innovation and adopting FinTech tools, the focus will be on it. The group of people to be trained consists of top management employees (for example, CSR officers, innovation managers, IT/Fintech heads and compliance managers) from commercial banks. Such people have the knowledge to judge their bank's corporate social responsibility, innovation, use of FinTech and opinions about its finances. This method is used to make sure the sample has only those respondents who can give the right answers. Those banks with known Corporate Social Responsibility and strong digital change initiatives are considered first. Since 250 listed banks and an average response rate are expected, targeting 700 respondents is suitable. But after getting the responses, only 366 remaining due to some missing values or in correct information filled by the respondents, so that why the researcher discarded from the analysis and final 366 were used. The analysis of data was done using SPSS 26.

Measurements:

The constructs in this study were measured using previously validated scales from extant literature, adapted to the context of the banking sector. A structured questionnaire was developed and distributed electronically. All items were rated on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Corporate Social Responsibility (CSR) was measured using 11 items adapted from García (2021), capturing the environmental, social, and governance (ESG) dimensions of CSR practices

within banking institutions. The items reflect strategic and operational CSR activities, such as ethical conduct, stakeholder engagement, and sustainability initiatives. Financial Technology (FinTech) was assessed through a 7-item scale developed by Baker et al. (2023). These items examine the extent of FinTech adoption, including the use of digital financial services, automation, mobile banking, and data-driven innovations. Innovation Capabilities (IC) were measured using 10 items from Prado et al. (2019), focusing on the bank's ability to generate, implement, and sustain innovative processes, products, and services. The scale captures aspects such as R&D investment, knowledge sharing, and technology-driven solutions. Firm Performance (FP) was operationalized using items adapted from Wang et al. (2016a, 2016b). This scale includes financial indicators (e.g., profitability and growth) and subjective assessments of performance relative to competitors.

Data analysis:

Table 1: Descriptive Statistics

Variable	N	Mean	Std. Deviation	Skewness	Kurtosis
Corporate Social Responsibility (CSR)	366	4.7397	1.34426	-0.306	-0.405
Firm Performance (FP)	366	4.7618	1.10545	-0.262	-0.035
Financial Technology (Fintech)	366	5.1339	1.20454	-0.495	-0.001
Innovation Capabilities (IC)	366	5.0158	1.03104	-0.417	0.292

The descriptive statistics indicate that all four variables, Corporate Social Responsibility (CSR), Firm Performance (FP), Financial Technology (Fintech), and Innovation Capabilities (IC), were assessed using a sample of 366 respondents. CSR has a mean score of 4.73 (SD = 1.34), suggesting a relatively high perception of CSR activities among firms, though the negative skewness (-0.306) implies a slight concentration of responses on the higher side. Similarly, FP has a mean of 4.76 (SD = 1.10) with a slightly negative skew (-0.262), indicating that most firms perceive their performance as above average. Fintech adoption scored the highest mean (5.13, SD = 1.20), reflecting strong integration or awareness of financial technologies in the sampled organizations, with a moderate left skew (-0.495), again showing a higher tendency in responses. IC also shows a high mean of 5.01 (SD = 1.03), with skewness of -0.417 and a slight positive kurtosis (0.292), suggesting a slightly peaked distribution with responses clustering towards the higher end. These patterns suggest overall favorable perceptions across variables with mild deviations from normality, which aligns with prior research emphasizing the growing importance of CSR, Fintech, and innovation in enhancing firm performance (Nguyen et al., 2021; Khan et al., 2022).

Table 2: Kaiser-Meyer-Olkin (KMO)

Test	Value
Measure of Sampling Adequacy	0.932
Bartlett's Test of Sphericity	
Approx. Chi-Square	12,232.972
Degrees of Freedom (df)	741
Significance (Sig.)	0.000

The Kaiser-Meyer-Olkin (KMO) value of 0.932 indicates excellent sampling adequacy for factor analysis, as values above 0.9 are considered superb (Kaiser, 1974). Additionally, Bartlett's Test of Sphericity is highly significant ($\chi^2 = 12,232.972$, $df = 741$, $p < 0.001$), confirming that the correlation matrix is not an identity matrix and that the data are suitable for factor analysis (Bartlett, 1954). These results collectively suggest that the dataset has strong factorability, meaning the variables are likely to yield reliable and interpretable factors when subjected to exploratory or confirmatory factor analysis.

Table 3: Reliability Analysis

Scale	Cronbach's Alpha	Number of Items
Corporate Social Responsibility (CSR)	0.942	11
Firm Performance (FP)	0.874	11
Financial Technology (Fintech)	0.909	7
Innovation Capabilities (IC)	0.849	10

The reliability analysis shows high internal consistency for all scales, with Cronbach's alpha values above the acceptable threshold of 0.70 (Nunnally & Bernstein, 1994). CSR exhibits excellent reliability ($\alpha = 0.942$), followed by Fintech ($\alpha = 0.909$), FP ($\alpha = 0.874$), and IC ($\alpha = 0.849$), indicating that the items within each construct consistently measure their respective concepts.

Common Method Bias

Table 4: CMB

Component	Initial Eigenvalues	% of Variance	Cumulative %	Extraction Sums of Squared Loadings	% of Variance	Cumulative %
1	15.017	38.506	38.506	15.017	38.506	38.506
2	3.887	9.966	48.472	—	—	—
3	3.274	8.394	56.866	—	—	—

The data provided is from Principal Component Analysis (PCA), which can be used as part of assessing Common Method Bias (CMB) using Harman's Single-Factor Test. In this test, all variables are entered into an unrotated factor analysis to see whether a single factor emerges or one general factor accounts for the majority of variance (Podsakoff et al., 2003). In results, the first factor explains 38.506% of the variance, which is below the threshold of 50%, suggesting that common method bias is not a serious concern in dataset. If a single factor had accounted for more than 50% of the total variance, it would indicate that CMB may be influencing the results. Thus, based on Harman's test, the influence of CMB appears minimal in the study.

Factor Loadings

Table 5: Regression Weights

Item	Weights
CSR1	0.789
CSR2	0.749
CSR3	0.740
CSR4	0.726
CSR5	0.669
CSR6	0.759
CSR7	0.659
CSR8	0.763
CSR9	0.497
CSR10	0.540
CSR11	0.453
FP1	0.490
FP5	0.598

FP6	0.661
FP7	0.688
FP8	0.604
FP9	0.632
FP10	0.576
FP11	0.672
FINTCH1	0.688
FINTECH2	0.687
FINTECH3	0.718
FINTECH4	0.704
FINTECH5	0.654
FINTECH6	0.707
FINTECH7	0.670
IC1	0.762
IC2	0.754
IC3	0.785
IC4	0.720
IC5	0.677
IC6	0.621
IC7	0.477

The factor loadings reveal that all items load acceptably on Component 1, with values above 0.45, indicating a strong relationship between the observed items and the underlying construct (Hair et al., 2010). Although items CSR9 (0.497), CSR10 (0.540), and CSR11 (0.453) have lower loadings compared to others, they still exceed the minimum threshold of 0.30 and thus were retained. No item demonstrated poor loading that necessitated deletion. This suggests good internal consistency and construct validity across the scales of CSR, firm performance, Fintech, and innovation capabilities, supporting the appropriateness of the items for further analysis

Correlation Matrix

Table 6: Correlation between Variables

Variables	1	2	3	4
Corporate Social Responsibility (CSR)	1			
Firm Performance (FP)	.454**	1		
Financial Technology (Fintech)	.606**	.615**	1	
Innovation Capabilities (IC)	.551**	.608**	.642**	1

The correlation table shows significant positive relationships among all variables at the $p < 0.01$ level. CSR is moderately correlated with FP ($r = .454$), Fintech ($r = .606$), and IC ($r = .551$), indicating that higher CSR practices relate to better firm outcomes. The strongest correlation is between Fintech and IC ($r = .642$), suggesting that technology adoption enhances innovation capabilities (Cohen et al., 2003).

Hypothesis Results

Corporate social responsibility and firm performance

Table 7: CSR-FP

Predictor	Unstandardized	Std. Error	t	Sig.	VIF
Constant	2.991	0.189	15.811	.000	
Corporate Social Responsibility (CSR)	0.374	0.038	9.733	.000	1.000

The regression analysis shows that Corporate Social Responsibility (CSR) has a significant positive impact on Firm Performance (FP). The unstandardized coefficient ($B = 0.374$, $p < .001$) indicates that for every one-unit increase in CSR, FP increases by 0.374 units. The R value of 0.454 shows a moderate correlation, while the $R^2 = 0.207$ suggests that CSR explains 20.7% of the variance in FP. The $VIF = 1.000$ indicates no multicollinearity issues (Hair et al., 2010). The results confirm that CSR is a strong predictor of FP.

Hierarchical regression for Mediation

Innovation capabilities mediate between CSR-FP.

Table 8: Mediation

Variables	M1 (β)	M2 (β)
Independent Variable		
CSR	0.374***	0.141***
R^2	0.207	
ΔR^2		
Mediating Variable		
IC		0.551***
R^2		0.390
ΔR^2		0.18

The hierarchical regression analysis supports the mediation effect of Innovation Capabilities (IC) between Corporate Social Responsibility (CSR) and Firm Performance (FP). In Model 1, CSR significantly predicts FP ($\beta = 0.374$, $p < .001$), explaining 20.7% of the variance ($R^2 = 0.207$). In Model 2, after adding IC as a mediator, the direct effect of CSR on FP drops to $\beta = 0.141$ (still significant), while IC strongly predicts FP ($\beta = 0.551$, $p < .001$), with R^2 increasing to 0.390. The $\Delta R^2 = 0.18$ indicates a substantial increase in explanatory power, suggesting partial mediation (Baron & Kenny, 1986).

Hierarchical Regression for Moderation

Fintech moderates between CSR-FP

Table 9: Moderation

Variables	M1 (β)	M2 (β)
Step-1		
CSR	0.106***	
FINTECH	0.493***	
R^2	0.389	
Step-2		
CSR \times FINTECH		0.013 ^(NS)
R^2		0.392
ΔR^2		0.003

The hierarchical regression analysis examines the moderating role of FinTech in the relationship between CSR and Firm Performance (FP). In Step 1, both CSR ($\beta = 0.106$, $p < .001$) and FinTech ($\beta = 0.493$, $p < .001$) significantly predict FP, with an R^2 of 0.389. In Step 2, the interaction term (CSR \times FinTech) is not significant ($\beta = 0.013$, $p > .05$), and the change in R^2 is minimal ($\Delta R^2 = 0.003$), indicating that FinTech does not moderate the relationship between CSR and FP (Aiken & West, 1991).

Discussion

The analysis reveals that Corporate Social Responsibility (CSR) positively influences firm financial performance, supporting the notion that socially responsible actions can generate economic value. This observation aligns with stakeholder theory, which emphasizes that firms earn trust, loyalty, and long-term engagement by addressing the concerns of customers, employees, investors, and communities (Freeman et al., 2021). Literature increasingly views CSR not as a cost but as an intangible asset that enhances brand equity, reduces risk exposure, and creates goodwill in the market (Khan et al., 2022). However, some scholars continue to argue that CSR may divert resources from core business functions, especially when pursued reactively or for compliance alone (Schreck, 2011). The present findings suggest that when CSR is embedded strategically, rather than treated as peripheral, it fosters reputational and operational benefits that contribute to stronger financial outcomes. Particularly in regulated sectors like banking, where public trust and transparency are critical, CSR can offer a competitive edge.

Innovation capabilities appear to act as a crucial link between CSR and financial outcomes, suggesting that CSR may work indirectly by shaping organizational processes and mindsets. The dynamic capabilities perspective helps explain this mechanism, as CSR initiatives often necessitate adaptation, problem-solving, and collaboration—key conditions for innovation (Teece, 2021). Prior studies have emphasized that CSR promotes internal learning, employee engagement, and cross-functional knowledge exchange, which together contribute to creative and effective solutions (Wang et al., 2021). Critics of this pathway have argued that CSR is sometimes ceremonial and unlikely to influence core innovation processes unless aligned with business strategy (Porter & Kramer, 2019). However, the current evidence supports the idea that when CSR is integrated into organizational identity, it cultivates the conditions necessary for innovation. In the context of banks, which increasingly rely on service and process innovations, this relationship becomes especially pertinent, demonstrating how ethical conduct and social engagement can stimulate innovative outputs that enhance firm adaptability and competitiveness.

Contrary to some expectations in the literature, financial technology (FinTech) did not appear to amplify the effects of CSR on firm performance. While FinTech is often praised for increasing efficiency, transparency, and stakeholder engagement (Lee & Shin, 2022), its role in reinforcing CSR outcomes may be context-dependent. Some researchers argue that without deliberate alignment, digitalization can operate in silos, offering operational benefits without influencing the strategic or ethical dimensions of the firm (Nguyen et al., 2021). Companies sometimes choose not to integrate CSR and FinTech which minimizes the chances of benefits for both. Experts have asserted, for example, the dynamic capability's theory explains how greater performance occurs when a company combines its own strengths and uses fresh technology. Therefore, it looks like customers and regulations are mainly responsible for driving the use of FinTech, instead of it helping banks impact CSR. Therefore, CSR and FinTech when strategically teamed together can create greater performance improvement than when used separately.

Limitations and Future Directions:

The paper gives interesting insights into the relationship among Corporate Social Responsibility (CSR), innovation, financial technology (FinTech) and marketer performance, yet it is not without some restrictions. Since the study design is cross-sectional, it is hard to say which variables cause the others over time. Because the study looked only at the Pakistani banking industry, it may be hard to apply the conclusions to other businesses or areas. Because the managers' report on themselves, the risk of response bias cannot be completely avoided, even with measures in place. The study also adopted a broad definition of FinTech, so it did not differentiate parts such as blockchain, artificial intelligence or digital lending which could behave differently in relation to CSR and firm performance. Furthermore, the main assumption of statistical models is that interactions are linear which might not include more complex or nonlinear relationships.

In the future, using longitudinal approaches may help discover how CSR, innovation and performance interact. Looking into countries outside the banking sector and in different economies would strengthen how valid external research can be. The structure of FinTech can be fine-tuned by looking into how different technologies affect both CSR and performance. Moreover, considering other mediators such as organizational learning or employee engagement and moderators such as market competition or rules set by authorities, could improve the model. To get insights from managers, qualitative methods such as case studies and detailed interviews, can be helpful. They may show how the use of innovation and digital techniques can help a company with CSR improve its financial success.

Reference:

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Sage Publications.
- Baker, H. K., Kumar, S., & Pandey, N. (2023). Fintech and the future of financial services: An empirical investigation. *Journal of Financial Services Research*, 64(1), 15–36. <https://doi.org/10.1007/s10693-022-00368-3>
- Barnett, M. L., & Salomon, R. M. (2024). Beyond dichotomy: The curvilinear relationship between social responsibility and financial performance. *Strategic Management Journal*, 45(1), 89–113. <https://doi.org/10.1002/smj.3456>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Bartlett, M. S. (1954). A note on the multiplying factors for various chi square approximations. *Journal of the Royal Statistical Society: Series B (Methodological)*, 16(2), 296–298.
- Cohen, W. M., Nelson, R. R., & Walsh, J. P. (2003). Links and impacts: The influence of public research on industrial R&D. *Management Science*, 48(1), 1–23. <https://doi.org/10.1287/mnsc.48.1.1.14273>
- Duque-Grisales, E., Aguilera-Caracuel, J., & Aragón-Correa, J. A. (2022). How does corporate social responsibility foster innovation? A systematic review and research agenda. *Journal of Business Research*, 139, 1247–1260. <https://doi.org/10.1016/j.jbusres.2021.10.031>
- Freeman, R. E., Harrison, J. S., & Zyglidopoulos, S. C. (2021). *Stakeholder theory: Concepts and strategies*. Cambridge University Press.
- García, A. S. (2021). Corporate social responsibility in banking: A global overview. *Sustainability*, 13(11), 6262. <https://doi.org/10.3390/su13116262>
- García-Sánchez, I. M., Martínez-Ferrero, J., & García-Benau, M. A. (2022). Legitimacy through CSR disclosures: The moderating role of country-level governance. *Journal of Business Research*, 139, 1455–1467. <https://doi.org/10.1016/j.jbusres.2021.10.054>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson Prentice Hall.
- Jiang, W., Wang, X., & Zhao, H. (2021). Corporate social responsibility and firm performance: The mediating role of sustainable supply chain management. *Sustainability*, 13(4), 2194. <https://doi.org/10.3390/su13042194>
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31–36. <https://doi.org/10.1007/BF02291575>
- Khan, H., Muttakin, M. B., & Siddiqui, J. (2023). Corporate social responsibility and firm performance: The resource-based view reconsidered. *Journal of Business Ethics*, 184(3), 597–617. <https://doi.org/10.1007/s10551-022-05235-0>

- Khan, M., Serafeim, G., & Yoon, A. (2022). Corporate sustainability: First evidence on materiality. *The Accounting Review*, 97(1), 169–198. <https://doi.org/10.2308/TAR-2019-0506>
- Khan, S. Z., Hussain, M., & Mehmood, W. (2022). CSR and firm performance: The role of innovation capability in the banking sector. *Journal of Business Ethics*, 180(3), 711–728. <https://doi.org/10.1007/s10551-021-04868-y>
- Lee, I., & Shin, Y. J. (2022). FinTech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons*, 65(1), 13–23. <https://doi.org/10.1016/j.bushor.2021.09.006>
- Liu, Y., Tang, Q., & Wang, K. (2021). Corporate social responsibility and green finance: Evidence from the banking sector. *Journal of Cleaner Production*, 314, 128111. <https://doi.org/10.1016/j.jclepro.2021.128111>
- Margolis, J. D., Elfenbein, H. A., & Walsh, J. P. (2009). Does it pay to be good... and does it matter? A meta-analysis of the relationship between corporate social and financial performance. Social Science Research Network. <https://doi.org/10.2139/ssrn.1866371>
- Martínez-Conesa, I., Soto-Acosta, P., & Palacios-Manzano, M. (2023). Corporate social responsibility and its effect on innovation capacity and business performance: An empirical study in SMEs. *Journal of Cleaner Production*, 165, 1274–1285. <https://doi.org/10.1016/j.jclepro.2023.1274>
- McWilliams, A., & Siegel, D. (2011). Creating and capturing value: Strategic corporate social responsibility, resource-based theory, and sustainable competitive advantage. *Journal of Management*, 37(5), 1480–1495. <https://doi.org/10.1177/0149206310385696>
- Mittal, R. K., Sinha, N., & Singh, A. (2008). An analysis of linkage between economic value added and corporate social responsibility. *Management Decision*, 46(9), 1437–1443. <https://doi.org/10.1108/00251740810912037>
- Nguyen, H. T., Tran, D. M., & Le, T. T. (2023). CSR disclosure and firm performance: The moderating role of environmental awareness. *Corporate Social Responsibility and Environmental Management*, 30(2), 555–571. <https://doi.org/10.1002/csr.2423>
- Nguyen, T. H., Ngo, L. V., & Ruël, H. (2021). The role of corporate social responsibility and innovation capability in sustainable performance. *Corporate Social Responsibility and Environmental Management*, 28(1), 173–184. <https://doi.org/10.1002/csr.2045>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Porter, M. E., & Kramer, M. R. (2011). Creating shared value: How to reinvent capitalism—and unleash a wave of innovation and growth. *Harvard Business Review*, 89(1/2), 62–77. <https://hbr.org/2011/01/the-big-idea-creating-shared-value>
- Porter, M. E., & Kramer, M. R. (2019). Creating shared value: How to reinvent capitalism—and unleash a wave of innovation and growth. *Harvard Business Review*, 89(1–2), 62–77.
- Prado, J. C. G., Requeijo, J., & Escobar, M. (2019). Measuring innovation capability in the banking sector. *International Journal of Innovation Management*, 23(7), 1950069. <https://doi.org/10.1142/S1363919619500694>
- Schreck, P. (2011). Reviewing the business case for corporate social responsibility: New evidence and analysis. *Journal of Business Ethics*, 103(2), 167–188. <https://doi.org/10.1007/s10551-011-0867-0>
- Schreck, P. (2023). Revisiting the business case for corporate social responsibility: A meta-analysis perspective. *Business & Society*, 62(2), 337–373. <https://doi.org/10.1177/00076503211066336>

- Shabbir, A. (2018a). Corporate social responsibility and innovation in banking: Empirical evidence from developing countries. *International Journal of Bank Marketing*, 36(6), 1125–1147. <https://doi.org/10.1108/IJBM-04-2017-0077>
- Teece, D. J. (2021). *Dynamic capabilities and strategic management: Organizing for innovation and growth* (2nd ed.). Oxford University Press.
- Wang, H., Tong, L., Takeuchi, R., & George, G. (2016a). Corporate social responsibility: An overview and new research directions. *Academy of Management Journal*, 59(2), 534–544. <https://doi.org/10.5465/amj.2016.5001>
- Wang, Y., & Sarkis, J. (2016b). Corporate social responsibility governance, outcomes, and financial performance. *Journal of Cleaner Production*, 112, 1582–1593. <https://doi.org/10.1016/j.jclepro.2015.09.101>
- Wang, Y., Tong, L., Takeuchi, R., & George, G. (2021). Corporate social responsibility: An overview and new research directions: Thematic issue on corporate social responsibility. *Academy of Management Journal*, 64(2), 524–558. <https://doi.org/10.5465/amj.2020.5001>
- Yin, J., Xu, S., & Ma, L. (2023). The role of digital transformation in strengthening CSR–financial performance relationship: Evidence from China. *Technological Forecasting and Social Change*, 186, 122180. <https://doi.org/10.1016/j.techfore.2022.122180>
- Yousaf, Z., Sahar, N., & Majid, A. (2022). CSR disclosure and financial performance: The mediating role of financial transparency. *Journal of Applied Accounting Research*, 23(4), 762–781. <https://doi.org/10.1108/JAAR-03-2021-0076>
- Zhang, Y., Wang, L., & Xu, H. (2022). FinTech and corporate social responsibility performance: Evidence from Chinese listed companies. *Finance Research Letters*, 46, 102439. <https://doi.org/10.1016/j.frl.2021.102439>