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Exploring the Idea of Innovation, Corporate Social Responsibility and Company Performance with Technology as Mediator with Respect to Indian Information Technology Sector

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ABSTRACT

This study has examined the moderating impacts of productivity and innovation on the relationship between corporate social responsibility (CSR) and business performance. The goal of this project is to develop and test a theoretical model to identify the mediating mechanisms in the relationship between performance and CSR. The theoretical model (CIPP Model) is inferred from the literature's strategic paradigm. Its components are performance, productivity, innovation, and corporate social responsibility. In addition, a number of theories were developed to investigate the model. SEM, or structural equation modelling, is used to evaluate the model on data from IT businesses that engage in corporate social responsibility (CSR). The importance of product innovations has become a top priority at every level of the company's organisational structure. This study looks at the potential connections between firm performance (FP) and CSR and product innovation in the Indian IT sector. Innovation in technology has been used as a moderating factor in this study. As a mediator, we also look at how technology innovation (TI) influences the relationship between CSR, product innovation, and FP. In order to reach the conclusions, we first used a survey instrument to gather information from 343 respondents who were employed in the Indian IT sector. Additionally, middle-level staff members were selected as responders due to their critical role in the strategic expansion of the company. The data was then analysed using structural equation modelling, or SEM. After a thorough analysis, the validity and reliability of the scales were determined to be satisfactory.

Keywords: Innovation, Corporate Social Responsibility, Productivity, India, Technology, Mediator, Information Technology Sector
JEL Classifications: M10, M14

1. INTRODUCTION

Since corporate social responsibility (CSRA) initiatives have altered how people view conducting business, companies today must prioritise the community and industry over conventional business methods in order to become socially conscious companies that follow the fundamental CSRA practices for the benefit of their clients, staff, the community, and themselves. According to CSRA, there is a great deal of potential for improving the company's ability to draw in and please customers as well as its long-term potential and success (Podsakoff et al., 2003). The importance of CSRA involvement and actions in enacting organisations has been underlined in a number of prior studies. There is disagreement among earlier academics about the significant influence of CSRA on profitability, financial performance (FP), and business value. Therefore, examining the impact of CSRA on FP is the main objective of the current study.

The dominant mindset of contemporary firms, which is focused on boosting profits to increase shareholder wealth, has eliminated any expectation that businesses will act responsibly towards society. As a result, CSR is a concept, and the term itself is sarcastic. It should not be surprising that corporate social responsibility (CSR) is often seen as a strategic tool

for boosting a company's market potential and reputational legitimacy, which in turn improves performance. The claim that CSR has been shown to have a favourable impact on corporate performance lends credence to this viewpoint. CSR projects are likely receiving increasing attention from firms for the same strategic reasons, as they are perceived to benefit both society and the environment. Therefore, it is believed that inclusive and sustainable assessment and verification may have an impact on firms' credibility and efficiency as well as their ability to avoid social and environmental issues (Henseler et al., 2015).

Recently, the effect of corporate social responsibility (CSR) on economic success has drawn the attention of a large number of academics. While the majority of research have identified a positive association between CSR and financial performance, few have discovered a negative one. The matter remains open, though, as some people still fail to see any relationship between the two. Because of these contradictory findings, a more complete investigation into this issue is now required in order to evaluate the effect of corporate social responsibility (CSR) on business performance while accounting for various mediating factors (Ahmed et al., 2020).

CSR and productivity have been proven to be positively correlated in some research. However, they tend to concentrate on just one aspect of productivity, namely labour productivity; as a result, it is necessary to investigate how enterprises' level of productivity affects the implementation of CSR. There is currently no theoretical framework or empirical research on the factors that mediate creativity and productivity in the relationship between corporate social responsibility (CSR) and company success, despite all of these unfinished theoretical contributions. Therefore, a theoretical model based on recognised conceptual thinking must be developed, and an empirical inquiry of it must be carried out using a sound technique (Chin et al., 2020). Consequently, a theoretical model is developed to investigate this complex relationship between CSR and performance as well as the moderating influences of innovation and productivity using the Structural Equation Modelling (SEM) approach.

This study is significant in a number of ways. First of all, by concentrating on the moderating mechanism between CSR activities and company performance, it is the first attempt of its sort to close the theoretical gap. Productivity and innovation were suggested by this study as mediating factors for the relationship between CSR and company performance. Few studies have examined the connection between CSR and productivity, and even fewer have examined the relationship between CSR and innovation. The mediating roles of productivity and innovation have hardly been modelled or examined in any research. Additionally, this study aims to address the dearth of research on corporate social responsibility (CSR) in Asian and developing nations (Chindasombatcharoen et al., 2022).

Because Western nations have more robust structures than developing nations, corporate social responsibility (CSR) is primarily seen as a Western phenomenon. This characteristic may present a significant obstacle for companies that practise corporate social responsibility in certain nations, such as India. In order to determine the moderating elements in the relationship between CSR and performance in a developing nation like India, the study's goals are to construct and evaluate a theoretical model.

2. REVIEW OF LITERATURE

2.1. Product Innovation and Company Performance

Long-term stock market performance is positively impacted by product improvements. The development of new products to satisfy the demands of an external market or the wants of individual consumers is known as product innovation. Moreover, the effect persists for the duration of the term. The introduction of a new product that is only offered within the organisation or the launch of a new product onto the market are two examples of product innovation. Furthermore, these inventions are regarded as a possible source of discrepancy between the performance of the organisation and the rival companies operating in a market. As a result, key components play a major role in an organization's sustainable portfolio. Innovation is commonly operationalised in literature as the level of a firm's R&D investments (Farhana et al., 2022).

The literature on corporate social responsibility has made it clear that understanding the relationship between CSR and a company's financial performance requires taking innovation into account. The favourable correlation between corporate social responsibility (CSR) and financial performance will vanish once innovation in businesses is statistically controlled. The financial performance of a company is positively correlated with innovation. According to certain research, CSR and innovation are related. Additionally, based on the methodology literature, it can be inferred that innovation tends to have a zero-order connection with the financial performance of organisations, provided that the association between innovation and CSR is positive rather than zero or statistically non-significant (Ahsan et al., 2022).

As a result, CSR serves as a tool or conduit for innovation, especially when it is focused on innovation. Innovation does, in fact, aid in demonstrating the viability of CSR.

2.2. CSR and Company Performance

Widely regarded as one of the most important concerns for businesses, particularly MNEs, in the twenty-first century, the notion of corporate social responsibility (CSR) clarifies the role of business in society. The concept of corporate social responsibility (CSR) has been promoted in previous research from a variety of perspectives, including corporate governance, social performance, business ethics, and corporate citizenship stakeholder management. In literature, the idea of "doing well by doing well" lays out the business argument for corporate social responsibility. In other words, companies who participate in CSR get a variety of benefits, such as improved financial performance, lower operating costs and risks, improved company reputation, and easier access to capital. Employee involvement and risk management inside the company are significantly impacted by CSR (Hanelt et al., 2021).

In the first place, employee participation in CSR strengthens the bond between workers and the company, which significantly boosts worker loyalty and corporate performance. In order to meet their needs for long-term sustainable growth, companies that practise corporate social responsibility make it a point to teach and educate their staff (Alfawaire and Atan, 2021). First, CSR makes the bonds between workers and companies stronger. Higher levels of staff engagement and productivity are subsequently stimulated, leading to improved levels of overall business performance. Employing skilled workers is another advantage of incorporating CSR into your strategy.

Second, business practices that are categorised as "CSR" mainly promote transparency. The line of coherent logic and reasoning about the relationship between corporate social responsibility (CSR) and firm performance has been supported by prior studies. All of the evidence currently available supports the following theory (Harjadi et al., 2020).

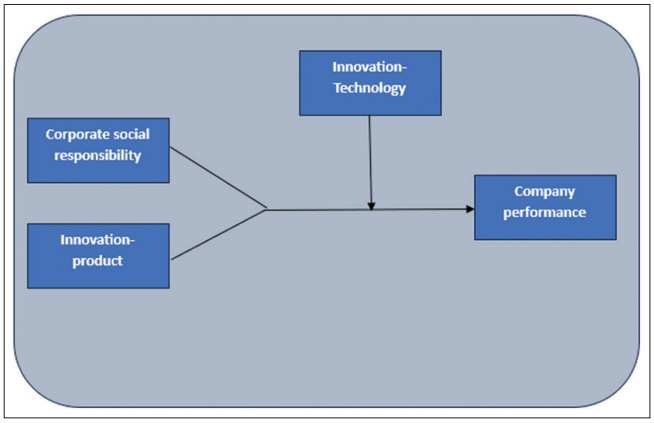
2.3. Technology Innovation as a Mediator in Company Performance

Although many research have studied the adoption of information technology (IT) using a multi-stage approach from the perspective of technology use, the topic of how performance repercussions vary during various phases of dispersion has not received enough attention. As a result, the practitioner must understand the connection between the firm's performance and the proliferation of technological advancements. For 10 years, researchers studying management information systems (MIS) have been trying to understand the function of information technology (IT) in businesses. The phrase "information technology (IT)" describes the problem whereby empirical studies have discovered that significant investments in IT have either little or no effect on corporate productivity (Na and Kang, 2019).

These contradictory results could be largely attributed to the inadequate techniques employed to assess the worth of information technology (IT). Historically, the focus has frequently been on financial metrics, like sales revenue or return on investment, when assessing the performance of the company. As a result, numerous studies promoted non-monetary metrics, especially those based on customers; yet there remained disagreement over which metrics should be employed.

In order to describe how technology advances are adopted in an industrial setting, Hanelt et al. (2021) introduced the technology–organization–environment model. It was conducted within the framework of the technological innovation problem. With the goal of identifying crucial preconditions for the general adoption of information technology (IT), the TOE model has been widely applied in a range of IT contexts, such as supply chain technologies and e-business. The dispersion of innovative technology within a company may be predicted by the following elements, according to this research: technical innovation, organisation, and environment. Therefore, we argue that technological innovation can be a powerful mediator of the relationship between company success and environmental sustainability. Figure 1 explains the framework of the study.

Figure 1: Conceptual framework



2.4. Conceptual Framework

2.4.1. Hypothesis

- H_1: Product innovation has correlation with company performance
- H_2: CSR has correlation with company performance
- H_3: Technology innovation moderates the connection between CSR and company performance
- H_4: Technology innovation moderates the connection between product innovation and performance of company.

3. METHODOLOGY

This study used self-reported instruments to deliver a survey in order to evaluate the model hypothesis. To determine a measurement model that was tested using Structural Equation Modelling (SEM) in AMOS, Confirmatory Factory Analysis was conducted to assess validity (Bentler 1990). The middle-level employees of Indian IT companies are the study's target audience since it aims to examine how CSRA might improve the firm's financial performance through innovation and CA in the country's IT industry. The current study used the purposive sampler technique; therefore the sample is composed of Indian IT company personnel in accordance with the study's objectives. To test the theories, a perfectly (Anderson and Gerding, 1988)

For SEM, a sample size of 343 respondents was chosen. 400 employees of selected companies were given an electronic structured questionnaire; only 343 valid and completed questionnaires were returned. The variables in the theoretical model were controlled utilising previously approved research tools in order to carry out this empirical study. To measure CSR in the proposed model, the study uses the Vollero et al. (2019) instrument. Respondents were asked to rate the operations of their respective firms on a Likert scale ranging from strongly disagree to strongly agree. The Calantone et al. (2002) instrument was used to measure innovation. The productivity construct was measured using a native set of questions.

4. ANALYSIS

A multifaceted approach was used to conduct the analysis. Second order confirmatory factor analysis (CFA) is used to examine the

validity and reliability of scales in India using AMOS, even if the constructs were measured using well-established instruments. For reliability analysis, SPSS was utilised. In addition to examining the convergent and discriminant validity, CFA was utilised to determine an adequate fit factor structure for the measurement model. The following phase involved applying the Structural Equation Modelling (SEM) approach to the proposed structure. The goal was to look into the relationship between CSR and financial performance through multiple mediation by innovation and productivity (Kline, 2015). The specifics of each stage are described in the paragraphs that follow.

To guarantee the quality of the data, it is simultaneously checked for common method variance using a variety of techniques.

Results from the descriptive datasets are shown in Table 1, where women made up the majority of respondents (76.9%). Its participants were discovered to be between the ages of 26 and 35, and whose majority (40.8%) are postgraduate educated. When asked if they buy green cosmetics frequently, 53.6% of respondents said they do so frequently, 37% said they do it infrequently, and 9.4% said they never do so. 50.7% of respondents rated the significance of green cosmetics as extremely important, 32% as less significant, and 13% as not important.

4.1. Reliability Test Results with Variables Names and Sources

From Table 2 it's observed that *a* values obtained are acceptable and a good-fit for the research. Thus the variables are acceptable and reliable.

The study's sample is sufficient to move forward with the analysis, which results in the CFA below, according to the sample adequacy test KMO (Table 3). Additionally, since CSR is a second-order construct in the study with four dimensions, the CFA was conducted to assess the construct validity and component structure of the proposed model. To reach a factor structure that could be utilised further, only elements with larger loadings were kept.

The findings make it evident that each factor's items satisfied validity and reliability standards (Nunnally, 1978). Since the factor structure does not have problems with discriminant or convergent validity, the next step is to use SEM to measure the proposed pathways. To analyse discriminant validity, the method suggested by Hair et al. (2017) was used. All of the variables and the square roots of AVE (between 0.202 and 0.842) conform to the results. The AVE technique of verifying discriminant validity based on the Fornell-Larcker criteria is demonstrated by comparing

Table 1: Demographic data

Demographic variables	Frequency (f)	Percentage	Valid %	Cumulative %
Education				
School-level	25	7.3	7.3	7.3
UG	124	36.2	36.2	43.4
PG	140	40.8	40.8	84.3
Doctorate	54	15.7	15.7	100.0
Total	343	100.0	100.0	
Gender				
Male	134	39.1	39.1	39.1
Female	209	60.9	60.9	100.0
Total	343	100.0	100.0	
Marital status				
Single	122	35.6	35.6	35.6
Married	158	46.1	46.1	81.6
Divorced	63	18.4	18.4	100.0
Total	343	100.0	100.0	
Income				
15000-25000	33	9.6	9.6	9.6
26000-35000	126	36.7	36.7	46.4
36000-45000	142	41.4	41.4	87.8
Above 46000	42	12.2	12.2	100.0
Total	343	100.0	100.0	
Age				
14-25 years (Gen Z)	113	32.9	32.9	32.9
26-35 years (Millennial)	124	36.2	36.2	69.1
36-45 years	48	14.0	14.0	83.1
46-55 years	36	10.5	10.5	93.6
Above 56 years	22	6.4	6.4	100.0
Total	343	100.0	100.0	

Table 2: Reliability results

No	Name	Sources	No of items	Cronbach Alpha
1	Technology innovation	Li et al. (2006)	5	0.702
2	Product Innovation	Chaudhuri et al. (2021)	5	0.790
3	CSR	Masurel and Rens (2015)	6	0.822
4	Firm Performance	Pare et al. (2020)	5	0.813

each variable's AVE with its squared correlation with the other variables.

4.2. Regression Weights: (Group Number 1 - Default Model)

The values of the results from Figure 2 and Tables 4 and 5. According to Hair et al. (2017), discriminant validity is appropriate because these correlations are higher overall. As an extra indicator of the test's discriminant validity, we additionally calculate the Heterotrait-Monotrait ratio (HTMT). Additionally, the HTMT is calculated and needs to be <0.85 (Nyugen et al., 2021). Building and testing a theoretical model to determine the mediating factors in the relationship between CSR and performance in India, a developing nation, was the aim of this study. The findings clearly show that innovation and productivity act as mediators in the CSR effect on the performance of firms in the study (Oliveira-Duarte et al., 2021).

This study is the first of its type and is based on the idea that scholars have mostly ignored the connection between performance literature and corporate social responsibility. This missing connection is explained by the moderation brought about by productivity and innovation. In order to incorporate these moderating elements into the theory, a thorough empirical investigation was conducted. These results have a number of ramifications for CSR, innovation, productivity, and performance theory and research (Pare et al., 2020).

H2 is supported by the research's findings, which show that CSR significantly and favourably affects businesses' performance, albeit in a small way. The findings ran counter to those of Peng et al. (2021) who found no relationship between CSR and FP. Our research indicates that management faces CSR problems at every stage of the managerial decision-making process as a result of ignorance that could impair company performance. Let's say the company's management needs to improve the FP (Vollero et al., 2019). Then, in order to collect pertinent environmental data, it is essential to improve relationships with suppliers, customers, rivals, and departments. According to this study, for example, management ought to be informed on modifications to the production process, CSR regulations, product demand, and rivals' environmental projects.

The management team has to get past the perceived CSR barrier, which hurts the FP. The gap between CSR and business performance may narrow if management places more emphasis on CSR and collects the necessary data. The result must be different if this is true. Furthermore, H3 demonstrates a strong and positive correlation between PI and es. A small number of research demonstrated a positive correlation between environmental sustainability and product innovation, particularly ecological innovation (Skare and Porada-Rochon, 2023). Furthermore, according to the research's findings, companies must be able to identify chances for new product development and effectively manage their resources if they are to succeed in creating PI.

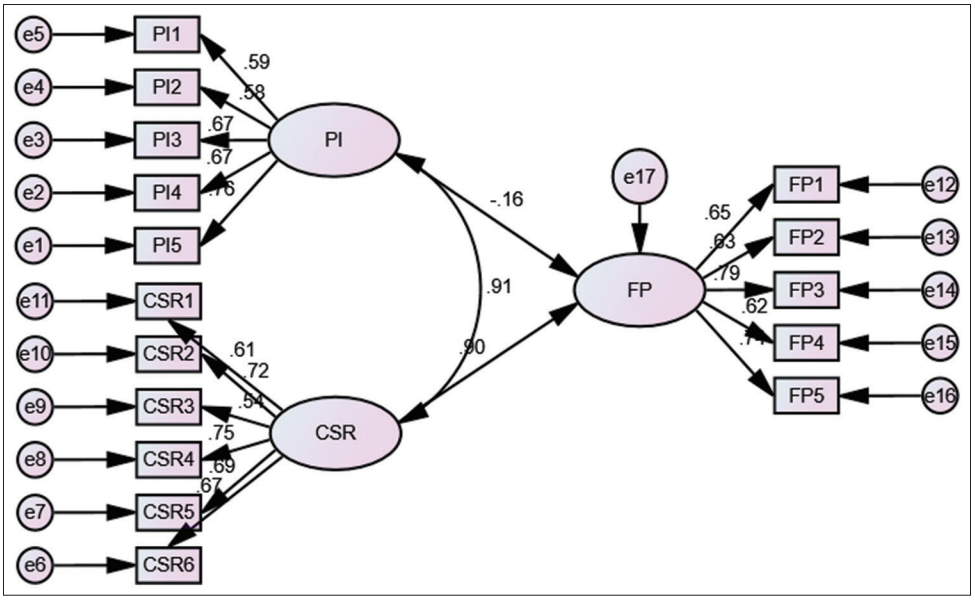
Table 3: Sample adequacy test

KMO and Bartlett's test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.862
Bartlett's test of sphericity	Approx. Chi-square	3467.258
	df	210
	Sig.	0.000

Table 4: Modal fit of data

Model	CMIN	CMIN/DF	GFI	AGFI	PGFI	CFI	PCFI	RMSEA	PCLOSE
Default model	1529.5	3.443	0.903	0.919	0.712	0.935	0.722	0.055	0.000
Saturated model	0.000	-	1.000	-	-	1.000	0.000	-	-
Independence model	7882.8	24.255	0.354	0.302	0.327	0.000	0.000	0.217	0.000

Figure 2: CFA analysis



4.3. Hayes Process-Macro analysis for the Mediators

The mediators have been analysed using the Hayes Process-Macro technique. The analyses of the hypotheses are:

The relationship between product innovation and company success is moderated by technological innovation, as indicated by the significant P = 0.0000 (Table 6).

The relationship between CSR and corporate success is moderated by technological innovation, as indicated by the significant P = 0.0000 (Table 7).

Additionally, because companies participating in CSRAs are more concerned with the interests and preferences of their stakeholders, they are able to respond to their demands and concerns more effectively than their rivals. In this sense, CSRAs typically assist the company in achieving CA over other competitors in the market. In order to enhance innovations, differentiation, and FP, businesses must concentrate on their CSRAs. By using CSRAs, these suggestions will assist businesses in increasing their FP. This study is distinctive because it closes the gap in the literature regarding the mediating factors of the FP bond and CSRA (Van Der Waal et al., 2021). The present research addresses the theoretical void in the literature concerning the empirical analysis of innovation and the moderating functions of CA between FP and CSRA in a combination study. Therefore, it seems to be an original and new study in the literature. The results of the hypothesis explained in Table 8.

It will contribute significantly to the body of evidence on CSRA, innovation, CA, and FP. Additionally, it will assist strategy makers in realising that businesses that participate in CSRA can attain superior innovation results and a distinctive, sustainable CA, both of which can greatly enhance their FP. The implications and recommendations of the current study can also be used by Indian policymakers to better understand the role that CSRA plays in the overall prosperity and expansion of the company. This will enable them to create CSRA policies that are suitable for the manufacturing sector, ultimately increasing the sector's contribution to the economy and society. There are certain limits to the current study, despite its valuable addition to theory and practice. The first limitation of this study is that it is limited to a single nation and geographic area (Xu et al., 2022). The findings are exclusive to Indian IT companies. Therefore, recommendations cannot be extended to other industries and countries.

In order to improve the findings and theories, the current study provides the researchers with a path to carry out this study in the IT sector. Furthermore, as the contribution of CSRA to the development and success of businesses may differ from nation

Table 5: Regression results

Constructs	Estimate	S.E.	C.R.	P	Label
FP<---PI	−0.122	0.172	−0.711	0.477	
FP<---CSR	0.786	0.206	3.811	***	
PI5<---PI	1.000				
PI4<---PI	0.846	0.070	12.027	***	
PI3<---PI	0.854	0.071	12.028	***	
PI2<---PI	0.716	0.070	10.268	***	
PI1<---PI	0.697	0.066	10.544	***	
CSR6<---CSR	1.000				
CSR5<---CSR	0.841	0.074	11.381	***	
CSR4<---CSR	0.952	0.078	12.201	***	
CSR3<---CSR	0.813	0.090	9.029	***	
CSR2<---CSR	1.034	0.087	11.819	***	
CSR1<---CSR	0.936	0.092	10.216	***	
FP1<---FP	1.000				
FP2<---FP	0.973	0.098	9.875	***	
FP3<---FP	1.280	0.109	11.723	***	
FP4<---FP	0.936	0.095	9.801	***	
FP5<---FP	1.130	0.101	11.227	***	

Table 6: Moderator analysis

Run MATRIX procedure:

****

Model: 1

Y: Firm performance

X: Product innovation

W: Technology innovation

Sample Size: 343

****

OUTCOME VARIABLE: Firm performance

Coding of binary Y for logistic regression analysis:

DV1	Analysis
1.00	0.00
2.00	1.00

Model Summary

−2LL	ModelLL	df	P
415.2865	18.0559	3.0000	0.0000

Model

	coeff	se	Z	P	LLCI	ULCI
Constant	−1.6750	2.2199	−0.7546	0.4505	−6.0260	2.6759
IVMean	−0.0922	0.7335	−0.1256	0.9000	−1.5297	1.3454
D4	−0.1908	0.7911	−0.2411	0.8095	−1.7414	1.3598
Int_1	0.2231	0.2634	0.8470	0.0004	−0.2932	0.7393

********** ANALYSIS NOTES AND ERRORS **********

Level of confidence for all confidence intervals in output: 95.0000

------ END MATRIX -----

Table 7: Moderator analysis

Run MATRIX procedure:

****

Model: 1
  Y: Firm performance
  X: CSR
  W: Technology innovation
Sample Size: 343

****

OUTCOME VARIABLE: Firm performance
Coding of binary Y for logistic regression analysis:

DV1	Analysis
1.00	0.00
2.00	1.00

Model

−2LL	ModelLL	df	P
415.2865	18.0559	3.0000	0.0000

Model

	coeff	se	Z	p	LLCI	ULCI
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Int_1	0.2231	0.2634	0.8470	0.0000	−0.2932	0.7393

********** ANALYSIS NOTES AND ERRORS **********

Level of confidence for all confidence intervals in output: 95.0000

------ END MATRIX -----

Table 8: Results

Hypothesis	Results
H1: Product innovation has correlation with company performance	Rejected
H2: CSR has correlation with company performance	Accepted
H3: Technology innovation moderates the connection between CSR and company performance	Accepted
H4: Technology innovation moderates the connection between product innovation and performance of company	Accepted

to nation and sector to sector, cross-sector and cross-country comparisons can also be made. Second, while future researchers can improve the findings by employing subjective measurements and secondary data for FP, the current study used objective measures for FP (Yeh et al., 2020).

5. CONCLUSION, IMPLICATIONS AND LIMITATIONS

It has confirmed that implementing CSR is a financially feasible strategy from the perspective of practical management. It has given managers more tools to use CSR, innovation, and productivity as a cohesive strategy, all of which contribute to the goal of higher financial and economic value for the companies. As a result, it offers the incumbent management and investors of both local and multinational corporations the set of instruments necessary to execute CSR and increase the firms' financial value (Yong et al., 2020). It has been hypothesised that CSR serves as a means of fostering an environment that is more conducive to creativity and increases organisational productivity, both of which boost a company's financial performance.

As a result, this study concludes that a company that practices social responsibility can benefit financially in the short and long term from this model of strategic CSR in addition to innovation and productivity. The management of companies with CSR programs needs to understand that CSR is not just charity or altruism; rather, it needs to be promoted strategically since it boosts productivity and innovation, which benefits the company financially overall. By identifying the crucial elements that need to be taken care of in order to achieve environmental sustainability, product innovation, and corporate social responsibility (CSR) in developing countries like India, this study adds to the body of knowledge already available on company performance (Yusuf et al., 2020).

Therefore, managers of businesses should focus on the aforementioned areas in order to meet performance targets. However, there is a limited commitment to sustainability and corporate social responsibility in the IT industry. The confirmatory factor analysis-derived validated latent variables significantly advance our understanding of the IT sector. According to the research, this situation significantly moderates the relationship between TI and FP; nonetheless, senior management should pay attention to other elements that are still emerging and related to FP (Ouedraogo and Koffi, 2018).

This study has shed light on the moderating impacts of innovation in the relationship between CSR and performance. This study can serve as a starting point for additional research into the mysterious relationship between CSR and performance. The study only used cross-sectional data and information from a single source, which can be verified and examined using longitudinal and multisource

data to prevent the frequent method variance that comes with studies of this kind (Zanjirchi et al., 2019). The financial performance was assessed subjectively, but the results of this study can be further confirmed by employing objective metrics. Additionally, it has been proposed that additional poor nations should host future studies on this topic (Visnjic et al., 2016).

This is because it's possible that the findings won't apply in other nations. The outcomes from various sectors and nations can then be contrasted. Finding the challenges that companies in India and other developing countries encounter when trying to adopt environmentally friendly product and process innovation and environmental performance techniques is another crucial area for future research to address in order to expand the body of knowledge regarding firm performance (Viveros 2016).

The research methodology used in this study was cross-sectional. The potential for changes in product innovation, corporate social responsibility, environmental sustainability, technology innovation, and firm performance over time within the Indian IT sector was not taken into account. To ascertain whether or not the results are the same, additional researchers may utilise a study model that is comparable to the one that was used. Although management provided the data for this study, coworkers and frontline staff may be included in future studies to evaluate the sustainability of the environment.

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