

Environmental Issues and Strategic Corporate Social Responsibility for Organizational Competitiveness

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Abstract

The objective of this study is to examine a multi-dimensional modified conceptual model based on stakeholder theory & previous literature. The work represents an attempt to evaluate the association of environmental issues and practices of an organization's corporate social responsibility and the impact of these two factors on overall competitiveness. We have taken four corporate social responsibility (CSR) factors regarding the environment that affect competitive organizational performance. Additionally, we incorporated green innovation as a mediator and social media marketing apps as a moderator to examine the impact on organizational competitiveness. We collected 906 responses from the manufacturing and services sectors from the regional developing Asian countries China, India, Pakistan, Bangladesh, and the UAE for more generalizable and robust results. We developed a modified questionnaire and conceptual framework to empirically test organizational performance & competitiveness. For the analysis, we employed SEM-based multivariate modeling. The study's findings reveal that all the considered CSR factors of the environment positively and significantly impact organizational performance for competitiveness. The results further show that both green innovation as a mediator and social media marketing apps as moderators significantly impact the relationship of CSR factors of environment and organizational competitiveness. Thus, the modified conceptual model demonstrates that the environmental CSR factors are beneficial for the manufacturing and service sectors of developing economies, which create value for competitive business, society, and environment. The findings provide valuable directions for the senior management in the manufacturing and services sector to devise and implement environmental strategies for competitiveness.

Keywords: corporate social responsibility, organizational performance, organizational competitiveness, green innovation, social media marketing apps, SEM-based multivariate modeling

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1. INTRODUCTION

Issues associated with the environment and resources have become the leading limiting factor for economic sustainability. Society has developed great concern for this topic (Lu et al., 2020; Yahya & Ha, 2013; Dvorský et al., 2019, Čepel, 2019). Technology challenges are increasing in proportion to green innovation implementation in companies for sustainable development practices and

competitiveness. However, green innovation plans are only employed when organizations believe that they will pay off in terms of profitability (Khan et al., 2019; Jeffrey et al., 2019). According to Martelo-Landrogues et al. (2018), environmental protection has become a prime strategy due to the growing importance of organizational competitiveness. Yang et al. (2017) and Barboza (2019) propose that companies can attain better outcomes by employing green innovation strategies that decrease production costs and enhance economic competitiveness. Therefore, environmental efforts are acknowledged as a vital element for an organization's sustainability and competitiveness (Dobrovič et al., 2019; Fernández-Gago et al., 2020). The current literature shows a scarcity of research studies establishing the advantages of environmental performance and green innovation for attaining competitive advantage for an organization (Lee, 2020). According to Fernández-Gómez et al. (2020) and Yahya & Ha (2013), corporate social responsibility is a way for an organization to maintain its value, conduct, and accountability based on its needs expectations of external and internal stakeholders. Thus, CSR defines the organization's commitment to take responsibility for its stakeholders to earn the utmost trust level of the company (Saenz, 2019). Yahya & Ha (2013) refer to the idea that socially responsible companies are better than their competitors by seeing them as opportunities to focus on national social issues, build interests, and simultaneously help communities.

Furthermore, CSR is vital because the environmental factors regarding customers and other stakeholders directly influence organizational competitiveness (Erhemjamts & Huang, 2019; Chang, 2016). Organizations improve their reputation and brand image through CSR practices (Lu et al., 2020). Moreover, environmental and social responsibility lowers operational costs, leading to higher profits and more competitiveness. Finally, CSR empowers the strategic management of external and internal threats in ecological and social gaps (Liczmańska-Kopcewicz et al., 2019). The elements of CSR are essential to the practice of CSR, and this paper considers the factors of CSR to determine the level of CSR for the manufacturing and services sectors.

The components discussed can help to develop a theoretical comprehension of the process in which CSR is being applied. The study examines a multi-dimensional modified conceptual model of CSR practices based on stakeholder theory and previous literature (Aversano et al., 2020; Yang & Stohl, 2020; Yahya & Ha, 2013). Thus the undertaken study is novel in several aspects: this is the first research that has addressed environmental issues and CSR practices of developing and emerging Asia economies. Additionally, this research represents a significant attempt to analyze CSR environmental practices to determine how these environmental strategies create competitiveness for the organization in terms of value for business, society, and the environment. This research also evaluates the impact of green innovation as mediating and social media marketing as moderating variables of overall organizational competitiveness. Thus this research provides a new and modified model based on stakeholder theory and previous literature, which has demonstrated that environmental factors have a significant positive influence on competitive organizational performance. We have not only considered the previous conceptual framework, but also incorporated new dimensions such as the environment as an opportunity as an independent factor, green innovation as a mediator, and social media marketing apps as moderators. This research has empirically tested a modified model for countries such as China, India, Pakistan, Bangladesh, and the UAE with an SEM-based multivariate approach. Another unique aspect of this research is a test of this modified model for regional countries to establish the impact of



environmental factors across countries for more generalizable and robust results. This is the first type of research that assesses inclusive environmental factors other than green innovation as a mediator and social media marketing as a moderator to investigate an organization's performance and competitiveness in business, social and environmental value creation. The findings of this research will have significant practical and theoretical implications. The undertaken study enhances the current knowledge of the considered topic, e.g. future researchers can replicate this model in specific industries and other developing and emerging economies. The practitioners of the industry can use this modified model as a business strategy for competitive advantages.

The remainder of the paper has been executed in several sections. Section two deals with a detailed literature review and the hypotheses development. Section three deals with the material and methods of the study, with section four comprised of estimations, data analysis, and discussions. Section five includes conclusions, practical implications, limitations, & potential areas for future studies.

2. THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

2.1 Theory underpinning – Stakeholder theory

Stakeholder theory states that some interests under the control of stakeholders include company employees, customers, financiers, suppliers, government agencies, communities, trade unions, political organizations, and competitors (Aversano et al., 2020). Amorelli & García-Sánchez (2020) provide a process by which an organization can devise a strategy for the environment which achieves the stakeholders' and organizations' objectives competitively. Stakeholder relationships include ongoing discussions and interactive elements involving stakeholder interactions and networks that create, maintain, and enhance an organization's ability to create value and competitiveness (Lee, 2020; Porter & Kramer, 2006). Companies need to emphasize a wider variety of social issues which indirectly and directly influence their relationships with external and internal stakeholders (Cheng et al., 2014). Several studies have used stakeholder theory to develop a conceptual model comprised of social concerns, regulatory forces concerns, public concerns, and economic concern, and organizational performance (Yahya & Ha, 2013; Bolton & Mattila, 2015; Porter & Kramer, 2006; Barboza, 2019; Cheng et al., 2014; Brunk & de Boer, 2020).

2.2 Organizational performance and competitiveness

Organizations need to translate their goals into behavior, incorporate environmental sustainability factors into their marketing strategies for competitiveness, and act on their decisions (Chang, 2016). This creates considerable value, provides a competitive advantage, and outperforms competitors (Barboza, 2019; Yahya & Ha, 2013). Ultimately, companies that apply environmental initiatives in strategic decisions enhance their performance and safeguard the environment. Organizations need to link CSR practices with their inclusive strategy to achieve business superiority and competitiveness (Grygiel & Brown, 2019; Saenz, 2019). Besides, Bolton & Mattila (2015) discovered that organizations with the best environmental performance enjoy higher benefits and lower perceived risk, enhancing market competitiveness.

2.3 CSR factors of the environment

Researchers assert that environmental issues are steadily devising a substantial influence on an organization's day-to-day operations and competitiveness. In the long run, these issues afflict an organization's performance and competitiveness (Chen et al., 2020). Organizations need to protect the environment and the general public's interests from environmental and social & public concerns (Lu et al., 2020). Organizations are encouraged to combine CSR events with social and economic goals to gain stakeholders' support and market competitiveness (Orazalin, 2020). Simultaneously, in illustrating regulatory forces, economic concern features fuse organizational goals concerning social performance, marketing strategies, market competitiveness, and entrepreneurship (Li et al., 2020). Hence, we have identified the following organizational structures:

2.4 Social and Public Concerns

According to Li et al. (2020), the social and public concerns (SPC) are an association between society and organization, which integrates social issues into business activities, considers the business impact on society, and ultimately contributes to a vibrant community. However, due to the organization's limited resources, it may not be possible to tackle all stakeholders' issues (Orazalin, 2020; Lee, 2020). Given this background, this study considers social and public concerns as the organization's major environmental issues. Mela & Putra (2020) and Yang et al. (2017) complement that external forces, for instance, legislation; public and social concerns, are compelling organizations to integrate environmental concerns in their strategic planning process. According to Fernandez-Gago et al. (2020) and Erhemjants & Huang (2019), public and social concerns about environmental protection allow an organization to consider all stakeholders' market competitiveness needs. In general, when conferring public concerns and social expectations, issues focus on the products being produced by the organization (Lee, 2020). Thus, according to Banerjee et al. (2003), public concern further comprises environmentally friendly customers and environmental activists, which put more pressure on organizations to become more aware of their impact on local environmental issues (Aversano et al., 2020). According to Brunkand de Boer (2020), there is a negative relationship between environmental degradation and organizational competitiveness. Therefore, organizations can benefit from this by distinguishing themselves in the market competitiveness and placing themselves through eco-friendly corporate obligations (Chang, 2016; Bolton & Mattila, 2015). Likewise, corporate environmental responsibility has become increasingly imperative for organizational competitiveness due to growing public awareness and concerns about the environment (Jeffrey et al., 2019). Therefore, we framed the following hypothesis:

H1: Social & Public concerns have a significant and positive impact on an organizational performance's competitiveness.

2.5 Regulatory Forces

Regulatory forces are considered one of the most critical elements of developed countries (Yahya & Ha, 2013) and developing countries (Lu et al., 2020). According to Chen et al. (2020) and Brunk & de Boer (2020), the regulatory force is a critical stakeholder that affects business strategy in



the actions they impose. According to Barboza (2019), environmental regulations have impacted organizational decision-making that has grown steadily for years in developed and developing countries. This is one of the key factors affecting an organization's Eco-friendly strategy (Li et al., 2020). Fernandez-Gago et al. (2020) and Banerjee et al. (2003) show that regulatory force mandates to comply with environmental standards, which are a significant precondition for environmentalism & competitiveness. Meanwhile, government regulators and shareholder-friendly organizations remain competitive in the worldwide marketplace (Yang & Stohl, 2020). It provides facilities for consumer well-being, such as pollution, waste treatment, noise, and maximizes biodegradable materials (Lee, 2020). Besides, organizations feel that pressure to consider the natural environment comes from several sources, including strategic considerations (Brunk & de Boer, 2020); regulation (Yahya & Ha, 2013); internal control (Lee, 2020), and market power (Lu et al., 2020) for overall competitiveness. Therefore, we framed the following hypothesis:

H2: Regulatory forces have a positive and significant impact on the competitiveness of organizational performance.

2.6 Economic Concern

Amorelli et al. (2020) and Yahya & Ha (2013) describe CSR from the perspective of an organization's business operations & competitiveness and mention the financial and socio-economic aspects that keep the organization profitable long run. The corporate strategy describes organizations' direction, the types of economic organizations they are intended for, and the nature of economic and non-economic organizations planning to serve employees, shareholders, communities, and customers (Orazalin, 2020). According to Lu et al. (2020), CSR is eventually a strategic issue that does not detract from its overall strategy. In this case, the organization's function is to have a social persistence that is coherent with its use and long-term economic benefits, and sustainability. Besides, organizations must show that making a profit is not a company's desire but that what it offers is valued to win society's trust for the market competitiveness (Li et al., 2020; Lu et al., 2020). Hence, we have framed the following hypothesis:

H3: Economic concern has a significant and positive impact on the competitiveness of organizational performance.

2.7 Environment as an opportunity

According to Yahya & Ha (2013), organizations see the environment as an opportunity while achieving the benefits of competitive differentiation. Organizations can discover the possibilities from the knowledge acquired through the market, customer requirements, and social concerns by presenting new customer products, creating new market segments, or developing new processes (Chang, 2016). Martelo-Landroguez et al. (2018) confirm that organizations that willingly implement green marketing can take advantage of green market opportunities and increase business performance and competitiveness. Aversano et al. (2020) found that companies aware of environmental opportunities have a more magnificent pool of novel concepts within their companies, are more likely to be financially successful & competitive, and have more significant non-economic and economic advantages. According to Keogh & Polonsky (1998), commitment, entrepreneurship, vision, and opportunity processes are associated with promoting vision. According to Barboza (2019), entrepreneurs integrate problems and derive opportunities from a

blend of policies, problems, organizations, and economic/sociopolitical issues. Therefore, vision and commitment empower entrepreneurs to recognize opportunities from different sources and streams (Li et al., 2020). Besides, a commitment and vision are created to enable “entrepreneurs see resources, the value of those resources and how those resources can be brought together to capitalize on opportunities” (Keogh & Polonsky, 1998). Finally, the “environment as an opportunity” leads organizations to “achieve market competitiveness.” Thus, we framed the following hypothesis:

H4: Environment as an opportunity has a significant and positive impact on the competitiveness of organizational performance.

2.8 Green Innovation

Green innovation usually comprises several forms of innovation, such as process innovation, product innovation, organizational innovation, and eco-innovation development, for market success and competitiveness (Fernandez-Gago et al., 2020; Barboza, 2019). According to Lee (2020), green innovation is commonly used to find changes that significantly impact a sustainable environment by evolving environmental progress and competitiveness. Green innovation, also called environmental innovation, consists of a shift in process, product, or organization that adds to environmental improvement and competitiveness (Cheng et al., 2014; Chang, 2016). According to Lee (2020), and Lu et al. (2020), green innovation is the adoption or development of innovations that allow an organization to diagnose, observe, mitigate, or prevent environmental issues which increase the organizational performance and competitiveness. Therefore, we have incorporated green innovation in our modified model as a mediating variable. Thus, we have framed the following hypotheses:

H5A: Green innovation significantly mediates between social & public concerns and competitive organizational performance

H5B: Green innovation significantly mediates between Regulatory forces and competitive organizational performance

H5C: Green innovation significantly mediates between Economic concern and competitive organizational performance

H5D: Green innovation significantly mediates between the environment as an opportunity and competitive organizational performance

2.9 Social media marketing apps

Research studies exhibit how to use social media platforms to create branded content on YouTube or Twitter (Hanaysha, 2018; Grygiel & Brown, 2019; Sfetcu, 2017). Besides, upgrade corporate business and offer promotions, discounts, and other attractions, track their competitors’ activities using social media, and analyze their business results for strategic competitiveness (Khan & Sukhotu, 2020). Moreover, the embracing of social media marketing has been discovered to have an affirmative impact on an organization’s social capital, impacting competitive organizational performance (Ahmed et al., 2019). An online community of customers, retailers, suppliers, and other stakeholders has helped extend interoperability between companies and enable rapid global communication (Lee, 2020). Social media focuses on mutual benefit assessments of consumers, retailers, suppliers, and comments and posts on various social sites, with concepts that help assess



overall organizational competitive performance (Brunk & de Boer, 2020). The social media marketing apps also highlight the company’s image and positivity regarding the environmental issues and encounter of CSR as a business strategy. Thus, we have framed the following hypotheses by taking social media marketing apps as moderator:

H6A: Social media marketing apps significantly moderate between Social & Public concerns and competitive organizational performance

H6B: Social media marketing apps significantly moderate between Regulatory forces and competitive organizational performance

H6C: Social media marketing apps significantly moderate between Economic concern and competitive organizational performance

H6D: Social media marketing apps significantly moderate between the environment as an opportunity and competitive organizational performance

2.10 The conceptual and theoretical framework

Thus, this research provides a new and modified model based on stakeholders’ theory and previous literature. The previous literature demonstrated that environmental factors have a significant positive influence on competitive organizational performance. We have not only considered the previous conceptual framework but also incorporated new dimensions such as environment as an opportunity as an independent factor, green innovation as a mediator, and social media marketing apps as moderators. Thus, based on previous literature such as Banerjee et al. (2003), Yahya & Ha (2013), Bolton & Mattila (2015), Porter & Kramer (2006), Sfetcu (2017), Barboza (2019), Cheng et al. (2014), Caruso (2016), Lu et al. (2020), Brunk & de Boer (2020), Khan & Sukhotu (2020) and Sfetcu (2017). Thus, we have devolved the modified conceptual and theoretical framework for the undertaken study. Thus, this research empirically tested a modified model for countries such as China, India, Pakistan, Bangladesh, and the UAE. Besides, the novelty of the modified model, the inclusion of some important developing and emerging economies in the study also established the impact of environmental factors across these countries for more generalizable and vigorous results. This is the first type of research that assesses inclusive environmental factors other than green innovation as a mediator and social media marketing as a moderator to investigate an organization’s performance and competitiveness in business, social and environmental value creation.

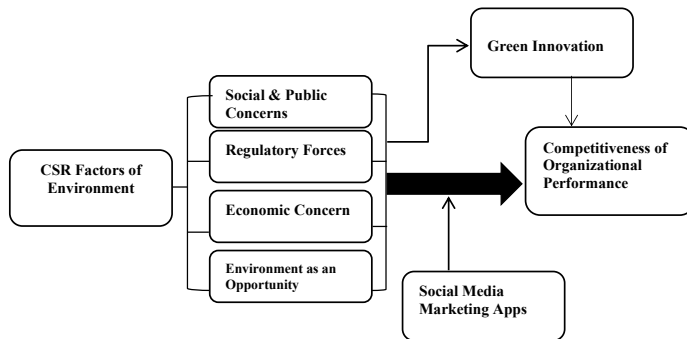


Fig. 1 – Modified Theoretical & Conceptual Modified Model. Source: own research

3. RESEARCH OBJECTIVE, METHODOLOGY, AND DATA

3.1 Objective of the research

The undertaken study's objective is to examine multi-dimensional structured CSR practices modified model based on stakeholder theory. Thus, the undertaken research is a significant attempt to analyze CSR's environmental practices and how these environmental strategies create value for organizational performance and competitiveness. The undertaken study's secondary objective is to evaluate green innovation (mediator) as a business and social strategy. Finally, this research evaluates social media marketing's impact as a moderator for overall organizational performance and competitiveness. Thus, this research provides a new and modified model based on stakeholders' theory.

3.2 Measurement scales

The operational items were derived and modified from previous literature by using a 5-point Likert scale. We have taken altered items of social & public concerns and regulatory forces from Banerjee et al. (2003), Abugre & Anlesinya (2019), and Bolton & Mattila (2015). This paper has considered modified items of economic concern from Banerjee et al. (2003) and Yahya & Ha (2013). However, the altered items of "environment as an opportunity" are taken from previous literature (Lu et al., 2020; Yahya & Ha, 2013). Modified items of organizational performance were taken from Grygiel & Brown (2019) and Saenz (2019). The altered items of mediating variable, i.e., green innovation, have been taken from Barboza (2019) and Cheng et al. (2014). The modified items of the moderating variable, i.e., social media marketing apps, have been taken from previous studies (Brunk & de Boer, 2020; Khan & Sukhotu, 2020; Sfetcu, 2017).

3.3 Data collection and sampling strategy

For the undertaken study, we employed the purposive sampling technique to build the appropriate representations of each regional country's manufacturing and services sectors, such as China, India, Pakistan, Bangladesh, and UAE. We have taken regional countries for more generalizable and robust outcomes. We considered both developing and emerging economies in our study, demonstrating how emerging and developing countries are combating environmental issues and how CSR strategies are essential for competitive advantage and competitive organizational performance. The data was collected from the senior-level managers who have been involved in CSR-related decision-making. The respondents were contacted personally and through e-mail to obtain their responses. We have also used LinkedIn social media for the initial screening and consent from the respondents. We have chosen a total sample of 906 respondents, 552 respondents belong to the manufacturing industry, and 354 respondents belong to the services sectors. The data was collected from May 17, 2020, to October 20, 2020. We had circulated 1000 questionnaires in which we received 906 questionnaires correctly filled; thus, the response rate was 90.60%.

3.4 Data analysis and Estimations techniques

An SEM-based multivariate methodology was used for estimation purposes. According to Hair et al. (2017), the CFA is a method for evaluating and confirming the constructs and items previously



used in preceding literature. The CFA approach stipulates the importance of the implemented items and components, whether they are compatible with the undertaken study (Lu et al., 2020). Descriptive analysis was used to characterize the constructs, for example, standard deviation, mean, kurtosis, and skewness. We have applied a rotated component matrix to analyze factor loadings, extracted mean variances, and composite reliabilities. We also used the Kaiser-Meier Orkin (KMO) and Bartlett methods to reduce items and components (Kaiser, 1974). We employed the total variance explained for the adequacy and reliability of constructs. The CFA was adopted for the suitability of the hypothetical structured model. Finally, conditional process modeling techniques were used to measure direct and indirect hypotheses relationships (Hayes & Rockwood, 2020).

3.5 Demographic profile of respondents

The demographic analyses demonstrate the background and authenticity of targeted respondents, for instance, senior managers of services & manufacturing sectors of emerging and developing economies. We have obtained 511 (56.4%) responses from males and 395 (43.6%) responses from the females. The data of working experience of respondents exhibited that 242 (26.7%) had 1–5 years' experience, 271 (29.9%) had 5–10 years' experience, 126 (13.9%) had 10–15 years' experience, 121 (13.4%) had 15–20 years, and 146 (16.1%) had more than 20 years working experience. Finally, the income data of respondents demonstrated that 401 (44.3%) had an income bracket of 2K–5K USD, 186 (20.5%) had 6K–9K USD, 157 (17.3%) had 10K–13K USD, 98 (10.8%) had 14K–17K USD, and rest of 64 (7.1%) respondents had more than 18K USD monthly income. We had taken income in '000' (K) and converted it into United States Dollars for uniformity.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

According to Lu et al. (2020), the descriptive statistics exhibited the characteristics of constructs, and Huang et al. (2004), for employing SEM-based modeling; the normality of data is a precondition. Thus, the acquired data are converted into z-scores, and descriptive statistics were carried out. The findings showed that standard deviation and skewness are within ± 1.5 , and kurtosis values are within ± 3 . Hence, it is established that our data showed a normality pattern (Byrne, 2009).

4.2 Reliabilities and Validities Analyses

Table 1 demonstrated that composite reliabilities and Cronbach's alpha are more significant than 0.60, which fulfilled the minimum criterion (Byrne, 2009). The findings of Table 1 further exhibited that factor loading of all the constructs is in the range of 0.50 to 0.93, meeting the convergent validity (Byrne, 2009). The AVE is more significant than 0.50 (Ahmed et al., 2019), which meets the constructs' discriminant validity criterion. Hence, it is established that SEM-based modeling can be employed.

Tab. 1 – Validities and Reliabilities. Source: own research

Factors	Items	FL	CA	CR	AVE
Organizational Performance	OP1	.936	.919	.942	.845
	OP2	.883			
	OP3	.938			
Social & Public Concerns	SPC1	.927	.925	.946	.856
	SPC2	.901			
	SPC3	.947			
Regulatory Forces	RF1	.933	.899	.949	.860
	RF2	.903			
	RF3	.946			
Economic Concern	EC1	.930	.889	.948	.859
	EC2	.904			
	EC3	.947			
Green Innovation	GI1	.930	.901	.946	.855
	GI2	.905			
	GI3	.938			
Social Media Marketing Apps	SMM1	.928	.902	.942	.847
	SMM2	.903			
	SMM3	.929			

Note: DV=OP=Organizational Performance; SPC=Social & Public Concerns; RF=Regulatory Forces; EC=Economic Concern; EAO= Environment as an Opportunity; GI=Green Innovation; SMM=Social Media Marketing Apps

4.3 Exploratory Factor Analysis – EFA

An exploratory factor analysis was employed to confirm the reduction and suitability of the sample data. EFA further classifies the loaded items. These participated in comparable elements or items. Exploratory factor analysis can compress large data samples into a compact format. According to Ahmed et al. (2019), the EFA method might help researchers investigate variable possession. The survey comprises six elements and eighteen items in which competitive organizational performance, regulatory forces, social & public concern, environment as an opportunity, and economic concern have three items. We considered one mediating variable and one moderating factor in which green innovation and social media marketing have three items. The outcomes of Table 1 exhibit that the factor loading of every item is higher than 0.50; therefore, we can retain all the items for the undertaken research.

4.4 Kaiser Meyer Olkin (KMO) and Bartlett's Analyses

The KMO analysis showed the suitability and fitness of the data that presented the value of 0.712. According to Kaiser (1974), this is relatively good because it considers values in the range of 0.70 to 0.79; however, the range of 0.80 to 0.99 is considered excellent. The outcomes of Bartlett's Sphericity exhibit the $p < 0.05$. This indicates that the correlation between items is significant and relevant at the 5% level of significance (Ahmed et al., 2019).

4.5 Total Variance Explained

The cumulative variances of the six variables showed the discrepancy of variations of the probable variables. The cumulative Eigenvalue is higher than 1; thus, the expected difference between the components is further established (Huang et al., 2004). The outcomes of total variance explained and also demonstrated a cumulative variance was 86.00%. This is considered good because the bottom threshold is 50%. Therefore, based on cumulative eigenvalues and cumulative variance, the data sample is reliable and can be further analyzed.

4.6 Confirmatory Factor Analysis – CFA

For checking a measurement model, the CFA is a direct and appropriate approach. According to Hair et al. (2017), the CFA approach analyzes the sample data for the hypothesized measurement model’s fitness. For the derived measurement model, we endorse the components of competitive organizational performance as an outcome variable, and regulatory forces, social & public concerns, environment as an opportunity, and economic concern, are taken as independent variables. Moreover, green innovation is taken as a mediating variable, and social media marketing apps are taken as a moderating variable. We have incorporated eighteen items for these six components into the CFA and fix the sample data amid unobserved and observed variables. The outcomes exhibited that the factor loading ranged from 0.90 to 0.93, which established that our hypothesized measurement model is acceptable. According to Hair et al. (2017) and Hair et al. (2020), the outcomes of Table 2 exhibited that all the fit-indices readings are within the specified range for the measurement model. Finally, it was concluded that a measurement model for competitive organizational performance was appropriate.

4.7 Structural Equation Modeling – SEM

This research has employed SEM-based modeling to estimate parameters for organizational performance and competitiveness. The considered structured model has four independent environmental CSR variables: regulatory forces, social & public concerns, environment as an opportunity, and economic concern. Moreover, green innovation is taken as a mediator, and social media marketing as a moderator, and competitive organizational performance as an outcome variable. The findings of Table 2 demonstrated that fit-indices readings are within the specified range for the structural model (Hair et al., 2017; Lu et al., 2020).

Tab. 2 – Fit Indices Measures. Source: own research

The goodness of Fit Measures	Absolute Fit Indices			Relative Fit Indices			Non-centrality-based Indices			Parsimonious Fit Indices	
	χ^2/df	Probability	GFI	NFI	IFI	TLI	CFI	RMSEA	RNI	PCFI	PNFI
Measurement Model	3.01	0.0122	0.96	0.93	0.96	0.96	0.97	0.025	0.97	0.82	0.85
Structural Model	3.11	0.0132	0.97	0.95	0.97	0.98	0.99	0.027	0.98	0.84	0.86

(Threshold values)*	< 5.0	< 05	>.95	>.90	>.95	>.95	>.95	<.05	>.95	>.75	>.75
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* Hair et al. (2017) & *Lu et al. (2020)

4.8 Hypothesized Direct Relationship

We evaluated direct association using standardized regression weights between four constructs of environmental CSR, for instance, regulatory forces (RF), social & public concerns (SPC), environment as an opportunity (EAO), and economic concern (EC), and organizational performance and competitiveness. The findings of Table 3 showed that the framed hypotheses from H1 to H4 are supported since the T value (student distribution) is higher than 1.96, and consequent probabilities are less than 0.05 ($p < 0.05$). For example, H1 is substantiated ($p = 0.000$; $T = 9.36$ & $\beta = 0.2078$); hence, it is established that social & public concerns have the second-highest impact on organizational performance and competitiveness. However, H2 relates to the regulatory force, which is also substantiated ($p = 0.000$; $T = 8.13$ & $\beta = 0.2237$), which shows the highest impact on organizational performance and competitiveness. Hence, it is finally established that SPC, EA, RF, and EC have a powerful and affirmative impact on competitive organizational performance. Earlier studies have also demonstrated similar outcomes, for instance, the regulatory forces (Lee, 2020; Mela & Putra, 2020; Yang et al., 2017; Fernandez-Gago et al., 2020; Erhemjams & Huang, 2019; Barboza, 2019; Aversano et al., 2020), social & public concerns (Chen et al., 2020; Orazalin, 2020; Li et al., 2020), economic concern (Brunkand de Boer, 2020; Chang, 2016; Jeffrey et al., 2019; Yahya & Ha, 2013; Yang & Stohl, 2020), and environment as an opportunity (Martelo-Landroguez et al., 2018; Grygiel & Brown, 2019) have a positive and significant association with organizational performance and competitiveness.

Tab. 3 – Hypothesized Direct Relationship. Source: own research

Hypotheses	Variables	Regression Paths	Standardized Regression weights (β)	SE	T	P*	Decision
H1	Social & Public Concerns	SPC † → OP	0.2078	0.022	9.36	0.000	Supported
H2	Regulatory Forces	RF † → OP	0.2237	0.027	8.13	0.000	Supported
H3	Economic Concern	EC † → OP	0.0434	0.014	3.04	0.002	Supported
H4	Environment as an Opportunity	EAO † → OP	0.1623	0.022	7.09	0.000	Supported

Note: † = Predictor; * $p < 0.05$ (rejected at the 5% level of significance); SE= Standard Error of statistic; T= T-distribution or Students distribution

4.9 Mediation Analysis

The findings of Table 4 exhibit the mediation of green innovation in a relationship of exogenous variables, for instance, regulatory forces, social & public concerns, the environment as an opportunity, economic concerns, and organizational performance and competitiveness. Using

normal and bootstrapping approaches, we undertook the mediation analysis. The undertaken research has framed and examined four hypotheses: H5A to H5D. According to Hayes and Rockwood (2020) and the bootstrapping approach, we looked at zero between BootLLCI and BootULCI since the zero does not occur amid a 95% biased corrected bootstrapping confidence interval. Consequently, Table 4 established that the mediating variable such as green innovation represents a potent mediation between exogenous factor dependent variables. We extracted the same findings from the normal theory method outcomes, as $Z > \pm 1.96$ and $p < 0.05$ in all the cases (Lu et al., 2020). The outcomes of this research demonstrate the similar findings of earlier studies, which have also depicted the same outcomes regarding green innovation as an effective environmental and competitive strategy for long-term sustainable growth (Chang, 2016; Lee, 2020; Lu et al., 2020; Barboza, 2019; Cheng et al., 2014; Fernandez-Gago et al., 2020; Lu et al., 2020).

Tab. 4 – Mediation Analysis. Source: own research

Hypotheses	Mediation	Bootstrapping Method				Normal Theory Method				Decision
		Indirect Effect	Boot SE	Boot LLCI	Boot ULCI	Indirect Effect	S.E.	Z**	Prob.*	
H5A:	SPC→GI→OP	0.603	0.022	0.559	0.648	0.603	0.023	26.05	0.000	Supported
H5B:	RF→GI→OP	0.641	0.022	0.597	0.685	0.641	0.026	23.92	0.000	Supported
H5C:	EC→GI→OP	0.109	0.036	0.039	0.184	0.109	0.031	3.50	0.000	Supported
H5D:	EAO→GI→OP	0.642	0.020	0.603	0.687	0.642	0.024	26.52	0.000	Supported

** denotes the values of $Z > 1.96$ and $Z > -1.96$; * denotes $p < 0.05$

4.10 Moderation Analysis

We examined the moderation analysis of social media marketing in an association between exogenous factors, such as regulatory forces, social & public concerns, the environment as an opportunity, economic concerns, and organizational performance & competitiveness, as endogenous variables. In the outcomes expressed in Table 5 we can see that hypotheses H6A to H6D are supported as $p < 0.05$ in all the cases. Therefore, it is finally established that social media marketing apps have acted as a potent moderating variable between exogenous variables and organizational performance and competitiveness. Previous research studies have exhibited the same outcomes, demonstrating that social media marketing applications boost the corporate image, business value, customer retention, organizational performance, and competitiveness (Hanaysha, 2018; Grygiel & Brown, 2019; Sfetcu, 2017; Khan & Sukhotu, 2020; Lee, 2020; Brunk & de Boer, 2020).

Tab. 5 – Moderating Effect. Source: own research

Hypotheses	Moderator	Moderation	Coefficient	SE	T	P*	LLCI	ULCI
Moderating Effect of SMM b/w Social & Public and Organizational Performance								
H6A:	SMM	SPC x SMM	-0.216	0.013	-16.25	0.000	-0.242	-0.190
Moderating Effect of SMM b/w Regulatory force and COP								
H6B:	SMM	RF x SMM	-0.149	0.013	-11.10	0.000	-0.176	-0.123
Moderating Effect of SMM b/w Economic Concern and Organizational Performance								
H6C:	SMM	EC x SMM	-0.054	0.017	-3.15	0.001	-0.089	-0.020
Moderating Effect of SMM b/w EAO and Organizational Performance								
H6D:	SMM	EAO x SMM	-0.214	0.013	-15.81	0.000	-0.240	-0.187

Note: Moderator=SMM=Social media marketing Apps; * Signifies rejection of Hypotheses at 95% confidence interval ($p < 0.05$); 'x' is known as the multiplicative sign.

5. CONCLUSION

The undertaken research aims to evaluate a modified conceptual framework built on stakeholder theory & previous literature, and it assesses the impact of environmental factors of CSR on organizational performance and competitiveness in terms of creating value for business, society, and the environment. The results show that social & public concerns and the environment as an opportunity demonstrated a positive and significant influence on organizational competitiveness. Similarly, regulatory forces and economic concerns have a significant positive impact on an organization's performance and competitiveness in creating value for business, society, and the environment. The outcomes of mediating variables such as green innovation established a perfect mediation between independent variables such as regulatory forces, social & public concerns, the environment as an opportunity, and economic concerns, with competitive organizational performance as a dependent variable. Finally, our moderation analysis outcomes show that social media marketing apps have significant influence between independent variables such as regulatory forces, social & public concerns, the environment as an opportunity, and economic concerns, with competitive organizational performance as an outcome variable. The research findings provide insights into how the environmental CSR elements relate to organizational performance and competitiveness in terms of creating value for business, society, and the environment. Second, the undertaken research has added significant knowledge to the existing literature relevant to the economic and social concerns and their impact on the organization and social behavior. The undertaken study sought to postulate a novel modified CSR framework that could be effectively employed to achieve competitive organizational performance by adding green innovation as a mediator and social media marketing apps as a moderator. Finally, this study looks at the relationship between CSR and organizational performance & competitiveness in developing countries. While the survey's overall findings underscore the finding that CSR practices play a crucial role in improving competitive organizational performance, built-in CSR environmental factors, green innovation, and social media marketing apps are more relevant to industry managers. The findings suggest that the corporate social responsibility component

needs to be incorporated at the highest decision-making level, which will create value for business, society, and environment for organizational performance and competitiveness.

5.1 Theoretical & practical implications

This study uses a modified conceptual framework with new dimensions for the manufacturing and service sector of developing countries based on stakeholder theory. The undertaken research provides the basis for future studies that can use this modified conceptual framework in diverse industries and economies. The findings offer critical theoretical contributions to the literature, e.g. that green innovation is an effective mediator that positively contributed to organizational performance and competitiveness. Similarly, social media marketing apps are a significant moderating variable which enhances competitive organizational performance. This study emphasizes the manufacturing and service sectors of emerging and developing countries to introduce green innovation strategies for creating value for business, society, and the environment for organizational performance and competitiveness. As a result, senior managers and executives need to foster a green culture based on environmental excellence and innovation. Social media marketing apps are significantly beneficial for organizational performance and competitiveness in creating value for business, society, and the environment. Thus managers should inculcate these digital channels to promote corporate image.

5.2 Limitations & suggested areas of future studies

This research study has certain limitations, for example its cross-sectionality that addresses the current period. Nevertheless, the technology is changing rapidly, thus it is recommended to future researchers that they replicate this study using a longitudinal design. We have examined only five developing & emerging economies; therefore, it is recommended that future studies be carried out with more developing economies from different regions of the world for more robust results, which can then be generalizable for the world as a whole. This research and its findings provide the foundation for future research studies that might be carried out for other emerging countries. Moreover, the cause and effect models we have used can produce richer understandings of associations among the variables. Thus future researchers should employ more robust models.

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