Effect of Green Supply Chain Management on Financial Performance: Moderating Effect of Institutional Pressure

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Abstract

Green supply chain management (GSCM) and environmental sustainability are still believed to be in their early stages in academic and research sectors, particularly in Asian developing countries. This study takes a more comprehensive approach to assessing the impact of GSCM on financial performance indicators, with organizational performance, environmental performance, and corporate reputation serving as mediators. Institutional pressure was used as a moderator as different institutional actors are putting pressure to implement green supply chain management practices. Data was obtained from 301 supply chain personnel in Pakistan's manufacturing industry, and the theoretical model was evaluated using partial least square structural equation modelling. The statistical results of the data collected indicate that GSCM practices have no significant impact on financial performance, but operational performance, environmental performance, and corporate reputation have a strong mediation effect on financial performance. The moderated regression analysis findings show that the presence of institutional pressures enhances the relationship between GSCM and financial performance. These findings indicate that the adoption of GSCM methods in Pakistan can be helpful to businesses in the long run in terms of financial performance.

Keywords: Green Supply Chain Management, Organizational Performance, Environmental Performance, Corporate Reputation, Financial Performance.

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Introduction

Due to the rising issues of global warming, the crisis of energy, and depletion of the ozone layer every organization is trying to fulfil their corporate social responsibility. Environmental protection has become a demand of every consumer and the regulatory authority in every country which is why environmental protection has become the core concern of organizations (Zhu et al. 2005; Jabbour et al. 2014). Because of the large contributions observed from industrial activity, this concept has been analyzed from a business perspective. Moreover, every firm is under pressure from both competitors and regulators to reduce waste. (Holbrook 1999; Delmas, Toffel 2003). The escalating environmental challenges necessitate organizations to formulate strategies aimed at mitigating the adverse effects of their products and services on the environment (Lewis 2001, Gretsakis 2001; Chan et al. 2016). According to some researchers, by increasing efficiency or being lean, environmental management boosts income and market share. (e.g., Porter and van der Linde, 1995; Rothenberg et al., 2001; King and Lenox, 2001). Other researchers claim that the financial performance of the firm can be improved by environmentally friendly practices (Klassen and McLaughlin, 1996).

Globalized changes in the environment forced organizations to change their traditional process to green. Organizations are now trying to establish a green image through the implementation of green strategies and practices in the firm (Hick, 2000; Chen, 2008). Reducing CO2 emissions by cooperating closely with suppliers and consumers to create the best transportation solution puts pressure on the environment, which results in lower production and consumption costs and better organizational results. These practices can create a competitive advantage and improve the reputation of the firm, increasing profit and sales (Porter & Kramer, 2006). According to growing evidence, Internal and external GSCM practices could have an indirect effect on the economic or financial performance through the usage of ecological, operational, and cost efficiencies (Vachon & Klassen, 2006; Wong et al., 2017; Lai & Wong, 2012; Zhu & Sarkis, 2004; Zhu et al., 2010a & 2013; Green et al., 2012).

Literature Review

Stakeholder Theory

Attributed to Freeman (1984), the inception of stakeholder theory stands as a seminal contribution within the domain of firm performance, representing a preeminent and extensively recognized framework within the realm of business management. Central to this theory is Freeman's proposition that an organization's operations are oriented towards the advancement and contentment of a spectrum of stakeholders, encompassing entities such as governmental bodies, investors, political factions, clientele, suppliers, local communities, trade associations, and the workforce. In this context, the strategic adoption of GSCM practices has surfaced as a response to the escalating requisites articulated by a diverse array of stakeholders, encompassing employees, shareholders, environmental advocacy groups, and governmental entities. These collective stakeholders stand susceptible to the

ramifications of the strategic decisions undertaken by corporations (Frogman & Murrell, 2005), thus underscoring the incentive for enterprises to embrace GSCM methodologies.

Institutional Theory

In 1983, institutional theory was introduced by Powell and DiMaggio, arguing that corporations attempt to adapt to their environment by conforming to valid guidelines and legal guidelines on the one hand and achieving social wellness on the other. These writers additionally declare that a firm's behavior is probably inspired by strong social pressure that pushes the organization in a particular direction. This. force can be. any type. of. social driving, such as culture, legislation, or laws. However, Zhu and Sarkis (2007) confirmed that the implementation of green supply chain practices is usually encouraged by a desire for social legitimacy and business sustainability rather than efficiency. In this study, institutional theory supports the moderating variable of institutional pressure.

Resource Based-View Theory

This theory presents a useful resource-based view of the organization and connects the organization's overall performance with better utilization of its inner assets. This consists of each tangible asset, inclusive of economic reserves and physical assets and intangible assets inclusive of reputation, employee capabilities and expertise, and organization culture. Wernerfelt (1984) challenged the previous concept. that a firm's performance is primarily impacted by its external environment, claiming a firm's competitive advantage is inherent inside its irreplaceable assets. To increase its performance and beat its competitors, the organization must manage its capacity effectively and efficiently. According to Russo (1997), from the perspective of tangible assets, a corporation might also additionally outperform the environmental overall performance of its competitors if the introduction of new assets improves internal procedures for resource utilization and waste reduction.

GSCM and Environmental Performance

Firms aiming to implement GSCM techniques are mainly motivated by the desire to increase performance (Zhu et al., 2008b, 2010a). It is assumed that adopting environmental management practices would result in improved firm performance (Dechant & Altman, 1994). The study of the relationship between GSCM practices and performance has garnered significant attention in both scholarly discourse and corporate application. It has been suggested that effectively tackling environmental challenges can enhance competitiveness and provide innovative avenues to augment value within core business initiatives (Hansmann & Kroger, 2001) .

GSCM practices are becoming more widely acknowledged as systematic and comprehensive strategies for improving environmental and operational performance (Green et al., 2012; Lai & Wong, 2012; Zailani et al., 2012; Zhu & Sarkis, 2004; Zhu et al., 2008a, 2008b, 2010b) GSCM reduces environmental damage because collaboration across functions, suppliers, and customers helps in identifying and confronting supply chain environmental challenges (Wong et al., 2015). Prior research has found a substantial association between internal

environmental management and green performance (Zhu et al., 2007; Seuring & Müller, 2008) As a result, we propose:

H1: GSCM is positively related to environmental performances

GSCM and Operational Performance

In accordance with prior scholarly investigations, enhancements in operational performance, encompassing factors of cost, quality, flexibility, and delivery, have been observed to transpire through the implementation of GSCM (Klassen & Whybark 1999; Green et al. 2012; Vachon & Klassen 2008; Zailani et al. 2012; Yu et al. 2014). GSCM assumes a pivotal role in scrutinizing both product design and production processes, thereby substantiating its utility. The proactive facet of environmental management accentuates the adoption of pollution-prevention technologies within manufacturing operations, thereby diverging from reliance on pollution-control mechanisms (Klassen & Whybark, 1999). In particular, pollution-prevention technologies offer enduring efficiency and efficacy due to their reduced energy and raw material consumption, engendering diminished operational expenses. Furthermore, these technologies emit significantly fewer pollutants, effectively obviating the necessity for pollution control expenditures. In summation, the extant literature underscores the constructive impact of GSCM on diverse facets of operational performance, as well as the strategic advantage conferred by pollution-prevention technologies in the ambit of manufacturing, substantiating their superiority over pollution-control counterparts. The cultivation of symbiotic relations between customers and environmental stewardship further augments quality outcomes. Accordingly, we propose:

H2: GSCM is positively related to operational performances

GSCM and Reputation

Positive actions and effective management of a firm's resources and capabilities, rather than more advertising or effective corporate communication, improve their reputation (Burke, 2011; Hoejmose et al., 2014). Green Supply Chain practices, according to Klassen and McLaughlin (1996) and Jacobs et al. (2010), will decrease costs while simultaneously creating a positive corporate image and reputation in the market . Many scholars conducted similar studies to evaluate the relation between firm's GSC practices and firm economic performance and reputation. Even though their research produced mixed findings in terms of the firm's financial performance, they all agreed that implementing green practices has a favorable and significant effect on corporate reputation. Several studies have suggested that green practices of firms for environmentally friendly company operations have a significant and positive impact on firm reputation. It is found in the study of the relationship between green supply chain and firm reputation that green buying has a positive and significant impact on corporate reputation . According to Zailani et al. (2012), green purchasing in supply chain improved the firm reputation and brand image. According to Mitra and Datta (2014) and Zhu and Sarkis (2004) , green buying of the business has a significant impact on corporate reputation. Ghosh (2017) found that the role of green supply chain management

in a firm has a positive impact on its reputation. Therefore, we suggest the following hypotheses for testing:

H3: GSCM is positively related to firm reputation

Environmental Performance and Financial Performance

Building upon precedent research Flynn et al. (2010), the present study adopts company financial sales growth, profit growth, and market share growth as metrics denoting the financial performance of the firm. Notably, Green et al. (2012) underscore that strategic investments in operational resource efficiency coupled with the strategic communication of environmental benefits yield an elevation in the overall "financial performance" of an enterprise. In the context of this study, "environmental performance" is defined as a tangible reduction in the quantities of pollutants released into water, air, and solid waste streams. Furthermore, this construct encompasses a curtailment in the consumption of toxic, hazardous, and harmful materials, as well as a decline in the incidence of environmental disasters (Zhu & Sarkis, 2004; Zhu et al., 2010b). As posited by scholars, enhanced environmental performance can be realized through the adoption of pollution prevention technologies that culminate in achieving a state of zero waste. This attainment translates to the elimination of expenses incurred in pollution control endeavors, as well as the mitigation of high costs associated with waste disposal. Consequently, this entails a reduction in the financial outlay for addressing environmental spillages and obligations, as indicated by Klassen and McLaughlin (1996). The potential to concurrently enhance profitability and market share while effectively curbing overall costs is feasible through the enhancement of environmental performance, we propose:

H4: Environmental Performance is positively related to Financial Performance

Operational Performance and Financial Performance

Enhanced operational performance signifies the organization's capacity to meet consumer demands promptly and accurately while ensuring high-quality goods and services. This extends to operational flexibility and efficient waste management in manufacturing (Flynn et al., 2010; Lai & Wong, 2012; Green et al., 2012; Wong et al., 2011). Similar to its environmental counterpart, operational excellence not only yields cost savings but also addresses evolving consumer preferences for environmentally friendly products and services, thereby enhancing "financial performance" (Green et al., 2012). Customer satisfaction, grounded in attributes like quality, flexibility, and reliable delivery, serves as the cornerstone for enduring customer loyalty and subsequent financial growth.

H5: Operational Performance is positively related to Financial Performance

Reputation & Financial Performance

Reputation may be an intangible concept, but it can impact on the financial performance that is the foundation of company success. Many studies conducted earlier show the positive impact of a firm reputation on financial performance . Good reputation and image of a firm can perform better financially (Nguyen et al., 2020). Porter and Kramer (2006) found that implementing a green supply chain practices can improve the reputation of the business ,

increasing revenue and profit. Competitive advantage and good reputation of a firm are directly related to the good financial performance of the firm (Saeidi et al., 2015). From the above literature we posit:

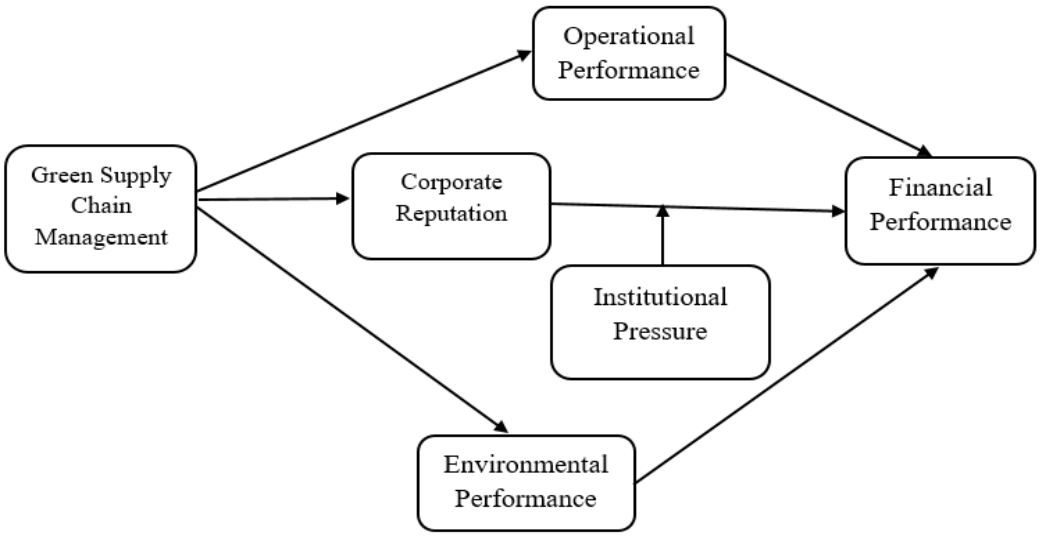
H6: Firm Reputation is positively related to Financial Performance

Moderating Role of Institutional Pressure

Institutional pressure entails the imperative for organizational adaptation to forge novel environmental safeguard strategies. The array of pivotal institutional actors—ranging from customers, competitors, and political entities to social, religious, local, and international communities, as well as market and regulatory bodies—exert substantial influence in this context (Wu et al., 2012). The comprehensive spectrum of stakeholders compels organizations to embrace coercive measures to realize environmental sustainability objectives. Foreseeing the impact of institutional pressure on strategic choices, organizations recognize its inevitability, thereby underscoring its pivotal role (Tingey-Holyoak, 2014). Decisions undertaken by organizations are intrinsically intertwined with the consideration of institutional pressure, which commands the expectation for ecologically conscious initiatives, pivotal for augmenting organizational performance (Seles et al., 2016). This regulatory framework is substantiated by governments worldwide, establishing requisite laws and regulations guiding organizational environmental policies (Li et al., 2017). In light of this, the government emerges as a preeminent stakeholder, impelling firms to align their practices with sanctioned norms and regulations. Notably, the most potent institutional pressures shaping organizational processes manifest in legislative mandates and wield political influence (Majundar & Marcus, 2001). From the above literature, we posit:

H7: Institutional Pressure has a positive mediating role between GSCM and Financial Performance

Figure 1: Conceptual framework



Methodology

Data Collection and Sampling

The quantitative method with closed-ended questionnaires has been applied to collected data. The study is cross-sectional, and data has been collected from February 2022 to March 2022. The respondents' data were collected through an online survey sent to the supply chain and manufacturing personnel of Karachi. The questionnaires were distributed with the prior approval of respondents. Finally, we received 301 data after discarding the outliers.

Measurements

Previous studies' scales were adopted for this study. All the items of measurement scales were validated through experts' suggestions. The questionnaire was presented to the Supply chain experts. The experts corrected the questionnaire and removed the error. With the expert suggestions, a pilot study was conducted on 72 respondents. After the satisfactory pilot study, the final data collection was started.

Table: 1 Respondents Profile

Variable	Frequency	Percent
Gender		
Male	166	44.9%
Female	135	55.1%
Total	301	100%
Age		
20-30	107	35.5%
31-40	73	24.3%
41-50	102	33.9%
50+	19	6.3%
Total	301	100%
Designation		
Executive Level	24	8%
Managerial Level	80	26.6%
Supervisor	135	44.9%
Other	62	20.6%
Total		
Salary		
25,000 – 35,000	30	10%
36,000 – 45,000	47	15.6%
46,000 – 55,000	123	40.9%
56,000+	101	33.6%
Total	301	100%

Respondents' Profile

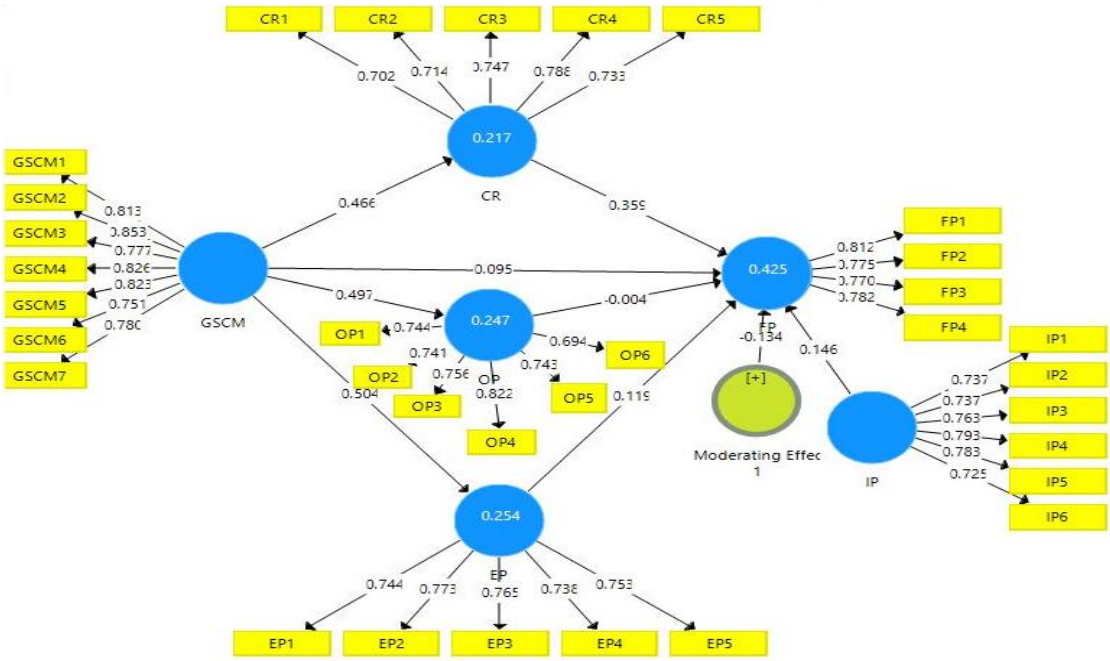
The above table displays the study's demographic results, which reveal that a total of 301 responses were collected the total number of male respondents is 166 and the total number

of female respondents is 135. The data shows that most of them are young employees related to the supply chain and production department as 35.5% are between the ages of 20-30. The bulk of responders are at the designation of the supervisor with a percentage of 44.9%. 224 out of 301, which is almost 74.5% of respondents have a salary of more than 45,000.

Results and Data Analysis

The SmartPLS software was utilized for data analysis. The data analysis was performed in two parts; the first part reports the measurement model components i.e. factor loading, construct reliability, and discriminate validity, whereas the second part reports the structural model such as path analysis and hypothesis testing.

Figure 2: Measurement model



Validity and Reliability Analysis

The current study evaluated validity and reliability through different tests. About factor loading, the endorsed criterion for acceptability set forth by Henseler et al. (2009) and Waris et al. (2021) recommended that a value of 0.7 or higher is deemed satisfactory. In contrast, Chin (1998) contends that a threshold factor loading of 0.5 is acceptable, while values below this threshold were disregarded. Notably, the present study's factor loading values adhered to the prescribed ranges established by these scholars. Regarding Cronbach's Alpha, established criteria posit that values of 0.7 or 0.6 denote acceptable reliability levels, as highlighted by Griethuijsen et al. (2014) and Hameed et al. (2019). Within the confines of this study, the computed Cronbach's Alpha values consistently surpassed the lowest threshold of 0.790, affirming their acceptability. Similarly, the evaluation of composite reliability surpassed the stipulated threshold of 0.70, thus surpassing the minimum threshold for reliability.

Table 2: Measurement Table

Variable	Loadings	Cronbach's Alpha	rho_A	Composite Reliability	(AVE)
CR	0.702	0.790	0.794	0.856	0.544
	0.714				
	0.747				
	0.788				
	0.733				
EP	0.744	0.811	0.812	0.869	0.569
	0.773				
	0.765				
	0.738				
	0.753				
FP	0.812	0.793	0.796	0.865	0.617
	0.775				
	0.770				
	0.782				
	0.813	0.909	0.911	0.927	0.646
	0.853				
GSCM	0.777				
	0.826				
	0.823				
	0.751				
	0.780				
IP	0.737	0.851	0.855	0.889	0.572
	0.737				
	0.763				
	0.793				
	0.783				
	0.725				
	0.744	0.845	0.851	0.886	0.564
	0.741				
OP	0.756				
	0.822				
	0.743				
	0.694				

Note: CR = Corporate reputation; EP = Environmental performance; FP = Financial performance; GSCM = Green supply chain management; IP = Institutional pressure; OP = Operational performance.

Table 3: Discriminant Validity

Variable	CR	EP	FP	GSCM	IP	OP
CR	**0.737**					
EP	0.597	**0.755**				
FP	0.587	0.470	**0.785**			
GSCM	0.466	0.504	0.386	**0.804**		
IP	0.416	0.406	0.400	0.230	**0.757**	
OP	0.590	0.533	0.409	0.497	0.409	**0.751**

Table 4: Heterotrait-Monotrait Ratio (HTMT)

Variable	CR	EP	FP	GSCM	IP	OP
CR						
EP	0.741					
FP	0.737	0.583				
GSCM	0.541	0.582	0.448			
IP	0.504	0.487	0.476	0.260		
OP	0.720	0.645	0.496	0.558	0.481	

Analysis of discriminant validity

This study used the Fornell and Larcker (1981) method to assess the discriminant validity. This method proposes that the diagonal values of constructs be greater than correlation values. Secondly, the Heterotrait-Monotrait Ratio (HTMT) method was used in which the constructs must be less than 0.90 or 0.85 (Henseler et al., 2009; Soomro et al., 2022). As mentioned in table 4 all the values are below 0.85 which confirms the discriminant validity.

Figure 3: Structural model

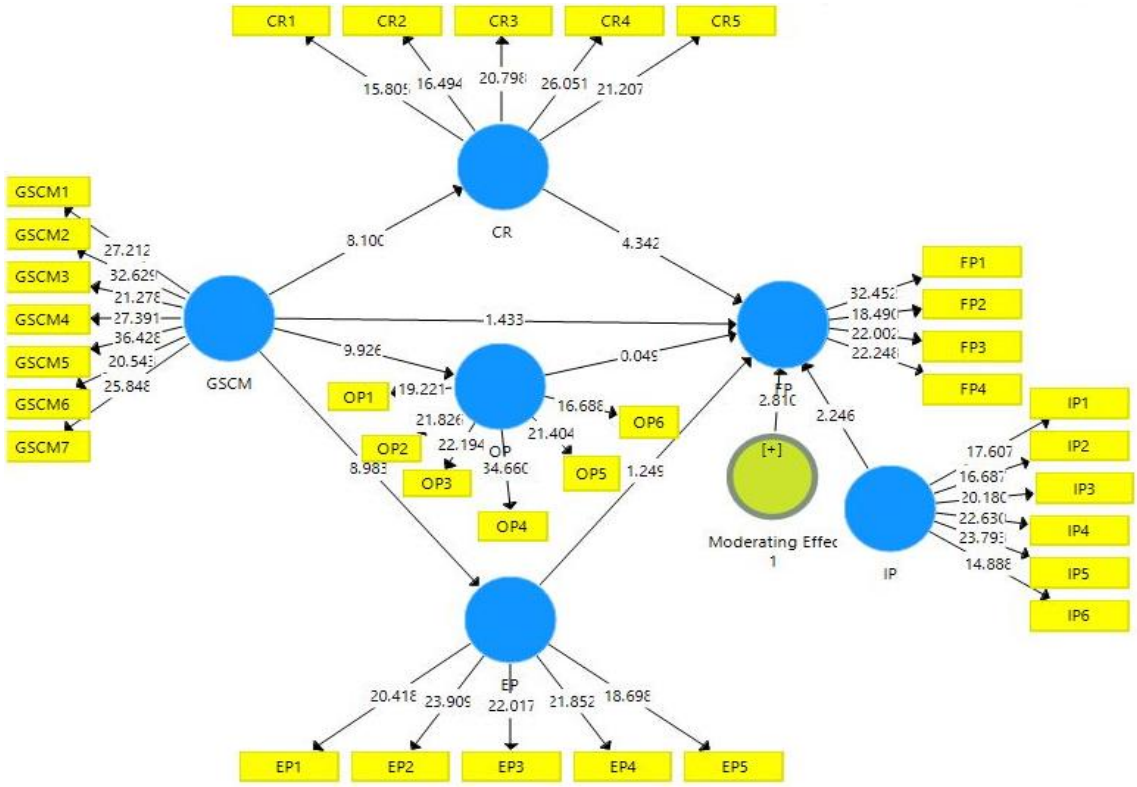


Table 5: Hypotheses Assessment Summary

Path	Beta	T Statistics	P Values	Decision
GSCM -> FP	0.095	1.411	**0.159**	**Rejected**
GSCM -> CR	0.466	7.856	**0.000**	**Accepted**
GSCM -> EP	0.504	8.746	**0.000**	**Accepted**
GSCM -> OP	0.497	9.935	**0.000**	**Accepted**
CR -> FP	0.359	4.394	**0.000**	**Accepted**
EP -> FP	0.119	1.263	**0.207**	**Rejected**
IP -> FP	0.146	2.215	**0.027**	**Accepted**
OP -> FP	-0.004	0.051	**0.960**	**Rejected**
Moderating Effect 1 -> FP	-0.134	2.739	**0.006**	**Accepted**

Hypotheses testing

Table 5 shows that the regression path GSCM -> CR is significant, implying that Hypothesis 1 is accepted and lies in the significance level (p-value < 0.05). It investigates the effect of Green Supply Chain Management on Corporate Reputation . Similarly, the regression line of GSCM -> EP is significant, implying that Hypothesis 3 is accepted and lies in the significance level (p-value < 0.05). It also investigates the effect of Green Supply Chain Management on Environmental Performance . Furthermore, the regression line of GSCM -> OP, as shown in Table 6, reveals that the value is in the significance level, and the significant results suggest the acceptance of Hypothesis 4 (p-value < 0.05). Table 6 also shows the statistical results between Corporate Reputation and Financial Performance. The table shows that Corporate Reputation has a substantial influence on Financial Performance (CR -> FP) regression path. The result suggests the acceptance of Hypothesis 5 (p-value < 0.05). It is shown from above Table 5 that path regression between EP -> FP (p-value> 0.05) were found to be statistically insignificant, implying the insignificance of Hypothesis 6. Furthermore, the regression line of OP -> FP, as shown in Table 6, reveals that the value is in the significance level, and the insignificant results reject of Hypothesis 4 (p-value> 0.05). The moderating effects of Institutional pressure on the relation between GSCM and Financial Pressure were found to be statistically insignificant, implying that Hypothesis 8 is rejected.

Discussion and Conclusion

To address environmental issues, Pakistan's governmental entities have implemented more rigorous environmental regulations over the years. Most Pakistani manufacturers are facing green barriers as a result of the country's entry into the World Trade Organization and increased globalization. Implementation of GSCM is rising as a management method for Pakistani manufacturing industries in order totorporate reputation and environmental performance, owing to the presence of consumers and mimetic pressure. Quality management programs and ISO 14000 certification connected to EMS are a useful starting point for organizations in less developed nations to achieve progressive EMS. Customers nowadays

are more aware of global environmental problems, and they expect environmentally responsible production from their suppliers.

Our findings show that green Supply Chain Management has an insignificant impact on a firm's financial performance. The reason for the insignificance of green Supply Chain Management on financial performance might include higher pricing paid by suppliers for greener raw materials and packaging, as well as a lower total number of greener providers in the market. Another reason could be the emerging concept of the Green Supply Chain in Pakistan. In developing countries like Pakistan people prefer price over environmentally conscious products. Slowly and steadily, people are considering environmentally friendly products over price. As a result, producers in this sector confront lower cost efficiency. This result is contrary to the results of previous research (Shafique et al., 2017; Feng et al., 2018).

Implementing green supply chain management will benefit organizations in the image of corporate reputation which directly affects the financial performance of the firm. The result above shows a significant impact of Green Supply Chain Management on Corporate reputation by directly improving financial performance. Our results are in line with Nguyen et al., (2020) who also reported positive effects of GSCM on the corporate reputation.

The effect of green supply chain Management on environmental and operational performance has been examined by previous research and most of them resulted as significant (Green et al., 2012; Vachon & Klassen, 2008; Yu et al., 2014; Lai & Wong, 2012; Zhu & Sarkis, 2004). This study's result lined with prior above-mentioned studies as the implementation of Green Supply Chain Management can enhance environmental performance and has a significant impact.
According to our findings, corporate reputation has a significant and positive impact on financial performance which means this finding is lined with prior studies (Vig et al., 2017). It is not surprising that in a developing country like Pakistan, environmental performance is not associated with financial performance . More environmentally friendly products or services, which normally come at a greater price, are not attractive to most Pakistani customers and hence are unlikely to improve financial performance. Previous research in more developed countries found conflicting results on this relationship, which might imply that even in such marketplaces, many individuals still prioritize price over the environment. Because Pakistani exporters are not rewarded for being "greener," this may explain why the level of export has no meaningful influence on environmental performance.

The findings support partial mediation between Green Supply Chain Management and Financial Performance . These findings show that GSCM concentrates on resource and operational performance and that GSCM operations are not undertaken to obtain profit and market share in new areas, but rather to fulfil the goals of cost reduction and resource efficiency while limiting environmental harm. Improved operational effectiveness generates new revenue, productivity, and cost savings. This finding is consistent with the results of previous research (Shafique et al., 2017).

The last Hypothesis was concerned with the impact of institutional pressures on the GSCM performance relationship. The findings indicate that external influence moderates the relationship between green supply chain management and financial performance in such a way that the link is significant when external pressures of institutional pressures are high. Customer pressure and government regulatory pressure are strongly linked with the implementation of GSCM practices. The findings indicate that firms implement green supply chain management methods in response to customers, regulatory authorities and environmental requirements imposed by central and regional governments and regulatory authorities. Environmentally responsible companies are more appealing to shareholders/investors and customers.

Implications

Our findings offer good recommendations for managers. According to our findings, managers must design an integrated green supply chain strategy. To gain a good business image through green supply chains, businesses must implement a variety of environmental management strategies across the supply chain, focusing not just on internal green operations but also on environmental collaboration with downstream consumers and upstream suppliers. Instead of symbolically implementing an environmental management standard (Boiral, 2007) or certainly implementing one or two GSCM practices, our research concluded that managers must commit to an initiative of detailed collaboration all over functional departments, suppliers, and customers to implement GSCM practices. Managers must consider that the complementary effects of internal and external GSCM approach led to improved operational performance but if we talk about improvement in financial performance by the implementation of green supply chain management then it needs to be understood that better operational and environmental performances will not give you immediate effect on financial performance. These are long term effects because the implementation of green supply chain practices is cost-effective, and it takes time to cover the cost. Also in Pakistan, people still prefer prices over environmentally conscious products, but this concept is emerging, and customers are moving towards environmentally conscious products. These insights provide managers with a new perspective on the adoption of GSCM processes and their paths to higher performance outcomes.

Another conclusion is that managers must not expect GSCM to affect the financial performance immediately. Our results suggest that GSCM has an indirect impact on financial success through influencing operational and environmental performance. This means that rather than using financial benefits such as financial return as the usual criterion for strategic decision making, managers must focus on defining the set of essential GSCM practices that might improve environmental and operational performance when trying to justify a strategic plan for implementing GSCM practices. Too much focus on business financial performance may lead to a lack of attention to resource efficiency.

Our findings have implications for policy makers. The findings indicating the strong beneficial impacts of GSCM on firm performance in the Pakistani manufacturing industry

offer policymakers a thorough understanding of the advantages and costs associated with GSCM adoption. Environmental protection has been an increasingly critical problem in Pakistan. Our Findings show that institutional pressure gives strength to the relationship between green supply chain and firm performance. Government policymakers might do more to educate manufacturers on how to apply GSCM procedures. Policymakers should take the lead in creating better environmental rules and legislations to encourage manufacturing industries to develop green supply chains as a comprehensive and inclusive strategy, allowing Pakistani industries to be more successful in achieving GSCM practices with proper regulations and guidelines.

Limitations & Future Direction

Our research, like any other, has limitations. First, for instance, the study was restricted to companies in the manufacturing sector; nonetheless, this sector was chosen since manufacturing accounts for a major share of the environmental impact in any country, and manufacturing is also responsible for natural resource depletion. The study was also restricted to the manufacturing industries of Karachi. Second, we viewed GSCM as a uni-dimensional construct, as other researchers had stated. GSCM has also been considered as a multidimensional construct having both internal and external practices. It would also be interesting to look into how these practices are linked to both financial and environmental performance. Second, we considered mimetic, coercive and normative pressure as institutional pressure. They could have been treated independently and separately. Third, the data collection design is cross-sectional. The main reason for the collection of data all at once rather than adopting a time delay was that our study required data from executives who were not readily available, making data collecting from executives challenging.

Extending this study to other industrial sectors in Pakistan may allow researchers to understand how the implementation of green supply chain management practices affects the performance of other firms and how they deal with mounting environmental issues in the construction sector, transportation sector, or other environmentally sensitive sectors. As a result, this study provides the foundation for future research in other industries. Second, GSCM could be used as a multidimensional construct in future studies. Thirdly, mimetic, coercive and normative pressure could be tested as independently and separately. Finally, the data gathered for the study is limited to Pakistani companies. The study might be performed in various countries/contexts. We recommend that future researchers investigate other mediating and moderating mechanisms.

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