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Sustainable Success: Mediating effect of Agile strategy between Practices of Green Supply Chain Management and Environmental Performance

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ABSTRACT

Purpose: In the contemporary information era, firms are trying to sustain their market position to achieve a competitive edge through organisational environmental legitimacy. However, one way to achieve sustainability is to adopt green supply chain management practices. As a result, achieving intended environmental performance depends significantly on green ecological supply chain management practices. The primary purpose of the current study is to explore how green supply chain management practices can play their sustainable role in environmental performance. As well as how agile strategy can mediate between green supply chain management practices and the environmental performance of organisations. Green eco-design, Cooperation with customers and green purchase are taken as green supply chain management practices and their impact on environmental performance.

Methodology: To conduct this quantitative study, an online survey strategy was used for data collection purposes, in which the researcher's interference was minimal because of a non-contrived setting. The study population is the managers working in small and medium enterprises of Pakistan, and out of these, 401 are taken as a sample. Managers as individuals are considered the unit of analysis in this

cross-sectional study. Simple random sampling is applied to select the firms from the list of small and medium enterprises located in the industrial zones of major business cities of Pakistan, like Lahore, Faisalabad, Sialkot, Hattar and Rawalpindi.

Findings: Each practice of green supply chain management (green eco-design, Cooperation with customers, and green purchasing) positively and significantly impacts environmental performance. Agile strategy mediates between all three practices of green supply chain management (green eco-design, Cooperation with customers, and green purchasing) and environmental performance.

Originality/value: The integration of agile strategy significantly impacts the environment's performance. Therefore, businesses should be able to set up procedures to create value through relationships with suppliers. Their selection and evaluation procedures can help analyse supply chain strategy. Organisations should prioritise their capabilities and strategies in daily operations, and the capabilities and strategies they need.

Keywords: Sustainability, Ecological Designs, Green Purchasing, Supply Chain Management

INTRODUCTION

Sustainability is a multi-dimensional concept that integrates environmental, social, and economic benefits to meet stakeholders' needs, creating competitive advantages through eco-design, green purchasing, and customer cooperation (Alharbi et al., 2025). Notably, the organisations that practice GSCM are inclined to develop parity achievement, which helps gain financial benefits and specific societal responsibility on a short and long-term basis (Landrum & Ohsowski, 2018). It has been claimed that industrialisation's environmental and social expenses have significantly increased over the last few decades. Numerous global civilisations contend with unwanted ecological and social problems due to an extensive profit-oriented approach (Kot et al., 2020).

Therefore, societies expect organisations to yield critical processes to halt or minimise nasty social and environmental effects (Khalid et al., 2025). Thus, organisations are under enhanced stakeholder inspection to alter corporate behaviour and align their behaviour with the philosophies of sustainability (Koplin et al., 2007). For instance, the public, customers, government, investors, and civil societies persistently pressure organisations to perfect themselves as responsible trade citizens (Brandenburg et al., 2014). This specifies that an organisation consistently appeals to exhibits a large extent of responsibility and accountability while executing its business processes (Ali et al., 2025). In reaction to continual stakeholder pressure, multiple organisations accept sustainable practices in commercial operations. Organisations' key objectives may differ, yet several organisations execute the sustainable strategy as they pursue social legitimisation or preserve licenses to remain well-designed and considered by the general community (Kannan, 2021). In contrast, others stimulate pre-emptive sustainable practices to attain a competitive edge in the severe, undefined situation (Homburg, Jozić &

Kuehnl, 2017). Any firm can only claim it is environmentally friendly if its supply chain has adopted environmental practices. However, several studies highlighted that a firm could not achieve environmental supply chain goals.

An organisation is claimed to remain sustainable if it can achieve sustainability in the supply chain. As a result, organisations' attention switched from competition among organisations to competition among supply chains (Dubey et al., 2017). The corporate value chain should also progress and favour a broader sustainability viewpoint to certify that its interaction, environmental and community relationship, supply chain, business, and consumers remain worthwhile (Homburg, Jozić, & Kuehnl, 2017). Consequently, supply chain management is crucial for determining market success and achieving operational performance (Wong et al., 2020).

Multiple well-known global businesses have refused to accept the critique by the general public, consumers, NGOs, and media for exhibiting negligence of environmental and social responsibility in their transportation operations (Saber, Kouhizadeh, Sarkis, & Shen, 2019). For instance, allegations are fabricated against big multinational organizations like British Petroleum (BP), Walmart, Nike, Apple, Mattel, British Home Stores (BHS), Adidas, Gap, H&M, Tesco, Nestle, and many more for their negligence in governing environmental and social supply chain problems (Gualandris, Golini, & Kalchschmidt, 2014; Rajeev et al., 2017). The renowned international products have initiated arguments for reckless processes for their overseas suppliers, so inflating the accountability to the entire supply chain became necessary. Organisations should proactively address environmental and social issues at inter-organisational and intra-organisational levels of their supply chain (Schnittfeld & Busch, 2015). SSCM, or assimilation of economic, ecological and social values into supply chain management, is a novel idea in scholarly literature and organisations. It aims to minimise risks, gain a competitive advantage, and protect stakeholders. Ethical organisations focus on SSCM for strategic relationships and minimising adverse environmental and social effects.

GSCM aims to lessen environmental damage and the impact that products have on the environment. The activity of the SMEs in Pakistan is crucial for boosting the economy. Much literature on Pakistan's cement, manufacturing, and automotive industries doesn't primarily focus on the textile business, specifically the green supply chain (Ikram & Siddiqui, 2019; Lee et al., 2012). While studying the literature on GSCM, the researchers' primary interest is in implementing the green supply chain in the SME sector.

To summarise, all argument proposes that SSCM has become a vital organisational issue. However, empirical studies on the SSCM investigation are insufficient, particularly in Pakistan, where the economy is based on SMEs and the corporate sector. Therefore, this research extends the literature about SSCM. This study will assist management researchers, practitioners, and managers understand how GSCM can stimulate EP. Some researchers have also claimed an apparent viewpoint for upcoming investigations to comprehend the contribution of

eventualities, like business factors in generating environment-friendly supply chain management (Govindan et al., 2014). On the contrary, it is essential to comprehend social and environmental responsibility apart from the intra-organisational processes (Kovacs, 2008). This needs a vibrant focus on examining sustainability problems externally, like inter-firm, focusing on the downstream and upstream supply chain actions. However, there is a shortage in SSCM research in three prime avenues; these will be discussed in detail. Firstly, the existing literature identifies that previous researchers have discovered barriers and motivators to sustainability from an overall viewpoint, and the attention has been inadequate, mainly to internal business processes. This study aims to understand the barriers and motivators to implementing sustainable supply chain (SSCM) in Pakistan, focusing on internal and external firm levels. It also identifies prospect-dependent elements that influence an organisation's tendency to adopt SSCM practices (Luthra, Garg, & Haleem, 2015; Luthra et al., 2016). This study investigates the impact of GSCM on environmental performance (EP) in Pakistani SMEs. GSCM, a sustainable process with eco-design, customer cooperation, and green product purchasing, is crucial for EP, with the mediating mechanism of agile strategy.

Problem Statement and Research Gap

The paper's primary goal is to pique interest in GSCM's direct impact on environmental performance and its indirect impact via agile strategy. The operational, social, financial, and monetary activities fall under the distinct directions, even though numerous studies have shown the apparent influence of the green supply chain in various dimensions (Ikram & Siddiqui, 2019; Lee et al., 2012). Furthermore, no such research has examined how agile strategy affects GSCM and EP indirectly. Research articles on green supply chain management are scarce, particularly in Pakistan. The study contributed significantly to current understanding by investigating the effects of economic success and the strong link between Pakistan's export performance and the green supply chain. The emphasis is on the Pakistani textile sector, which had received little attention in prior research.

Significance of the study

This study explores the role of Supply Chain Management (SCM) in promoting Enterprise Productivity (EP) in organisations, based on the Resource-based View (RBV) theory. It also explores the impact of agile strategy on EP and evaluates its effect through various methods, making it a pioneering study in supply chain management. This study will guide the manager on how an organisation can induce GSCM to bring EP in this speedy changing situation to compete with challenging firms. Furthermore, this study will assist SMEs in assembling future challenges of the firm in rapidly altering conditions and severe competition through their extra-role behaviours.

LITERATURE REVIEW

Underpinning Theory

The theory of resource-based view (RBV), which is widely applied in the

literature on operations management and strategic management and is currently mainly utilised in the management of the supply chain, sets the theoretical foundation of this article (Zimmermann, Ferreira, & Moreira, 2019). RBV proposed that assets include all an organisation's resources, including knowledge, information, firm characteristics, firm procedures, and capabilities, that allow it to understand and carry out strategies to increase the effectiveness and efficiency of the company (Barney, 1991, p. 101). The resource-based theory measures a firm's competitive edge, particularly in knowledge-based economies. Success relies on utilising tangible and intangible assets, with strategic assets that incentivise opportunities, are exceptional, and benefit businesses, thereby increasing value creation. Resource-based theory is the dominant paradigm in strategic management, arguing that financial performance varies across organisations. This theory significantly altered Porter's Five Forces model, as companies' competitiveness can differ even within the same industry.

Green Supply Chain Management (GSCM)

In the late 1990s, the supply chain management idea started to gain increasing consideration from management and scholars in reaction to the economic pressure of shorter lead time, increased responsiveness, reduced cost, and improved quality. The origin of supply chain management is an emergent phenomenon with the growth of lean production, just-in-time, and total quality management in Japan's base industrial plants. The practices of lean strategy, just-in-time, and TQM have converged into GSCM (Hassini, Surti, & Searcy, 2012; Jabbour & de Sousa, 2016). Environmental performance (EP) involves improvements in energy efficiency, waste reduction, and biodegradable elements. (Zhu et al., 2016) It improves societal adequacy and competitiveness. Companies should adopt universal environmental management philosophies, involving all individuals in greening the organisation (Kassinis & Vafeas, 2006). Assimilation of ecological values into organisational culture and strategic planning can nurture EP (Brandenburg et al., 2014). Researchers have discussed how performance and tactics are related (Markins & Steele, 2005). Several metrics can measure the efficacy and efficiency of an organisation's actions in assessing its performance (Franco-Santos et al., 2007). The prior studies showed that a deficiency of a precise plan could be fatal to performance. In contrast, integrating agile and lean strategies favours organisations in attaining superior performance. Since it's a complex endeavour, innovation has become increasingly vital for businesses to survive today's cutthroat market (Jean et al., 2012). Innovation is the most important factor when companies want an edge over the competition (Ribau et al., 2019).

Environmental Performance (EP)

Growing environmental problems and resource exhaustion apprehensions have made managers move to firmer regulations. Concurrently, society's environmental awareness has increased. This awareness has forced manufacturers to take ecological initiatives to enhance their EP. Researchers' and organisational executives' perspectives on managing the supply chain focus on environmental sustainability and sustainable production. In the manufacturing sector, strategic

supply chain management has been selected by multiple organisations to accomplish their obligation toward the environment (Su et al., 2016). However, the stakeholders and reputation of the organisation come at risk when it does not fulfil its responsibility toward the environment (Tseng et al., 2015). Therefore, along with economic goals, it is the prime responsibility of the organisation to expand its concern toward environmental and social objectives (Gimenez & Tachizawa, 2012).

Supply Chain Strategies

Strategy is a set of behaviours, policies, activities, and resources that help organisations achieve goals and enhance competitiveness. Supply chain strategies represent the goals and objectives of the supply chain, and must be aligned with the organisation's environment (Tarafdar & Qrunfleh, 2017). They involve decisions related to product delivery, communication, demand management, raw material conversion, capacity planning, and sourcing products, connecting corporate and business strategies (Arora et al., 2016, p. 206). Fisher (1997) suggests two strategies for supply chain management: market-responsive and efficient. Organisations may face challenges adapting these strategies based on product features and demands. Fisher's 1997 model suggests innovative product demand-responsive supply chain strategies, while Narayanamurthy and Gorumurthy (2016) suggest agile and lean approaches. Agile strategies aim to improve flexibility in response to uncertain demands (Abdollahi et al., 2015; Tarafdar & Qrunfleh, 2017).

Agile Strategy

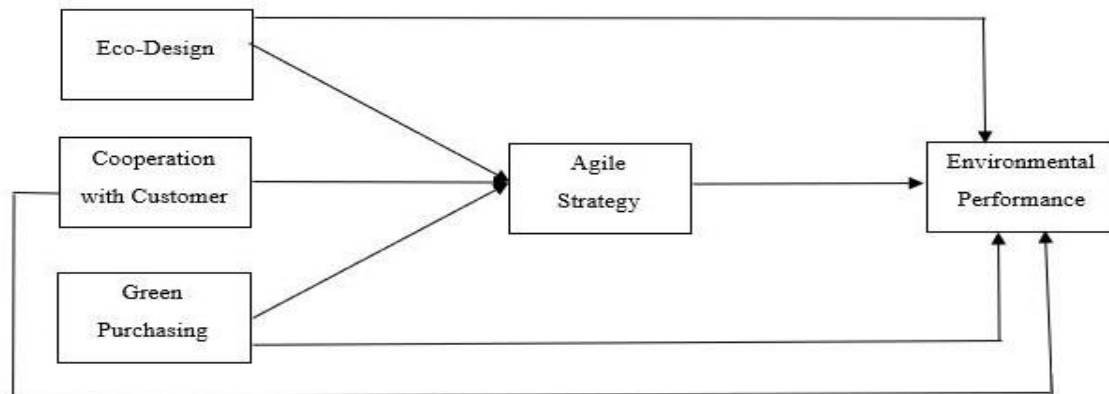
The agile supply chain strategy can be described as adaptability, flexibility, and assistance due to its continual, quick, and dynamic response to the competitive environment and clients' changing needs (Lin, Chiu, & Chu, 2006). The agile supply chain management strategy helps reduce inventory more effectively through vendor integration (Faisal, Banwet, & Shankar, 2006a). Customer responsiveness is essential at all levels of supply chain management because it is the need of an uncertain, unpredictable, and competitive environment that firms should be able to perfectly manage pending or modifying customer needs and requirements (Swafford, Ghosh, & Murthy, 2008). This means that the firm can recognise changes in customer needs by anticipating, perceiving, and sensing environmental modifications (Ahmed & Huma, 2021). Responsiveness is a significant factor in the modern world and can be attained through agility (Dubey et al., 2017).

Mediating Effect of Agile Strategy

In developing countries, organisations have integrated green behaviours to handle their supply chain. Environmental regulations improve in developing countries because of increased educated customers and high market competition (Govindan et al., 2015). Manufacturing organisations in developing countries have implemented diverse strategic supply chain management initiatives to minimise externalities. These initiatives comprise the growth of eco-friendly projects and green purchasing to decrease the influence of manufacturing on the environment (Tseng & Chiu, 2013). Producers can satisfy national needs in developing countries and extend business in the global market by observing international rules and

regulations. However, inadequate national resources make it more challenging for industrial organisations in developing countries to implement strategic supply chain management (Ang et al., 2018). With the attainment of green resources by integrating with associates, industrial organisations are defeating the inaccessibility of resources. Strategic supply chain management enhances the associates' performance in cooperative relationships.

Figure 1: Theoretical Framework of the Study



RESEARCH METHODOLOGY

The online survey method will be applied to collect quantitative data from employees of SMEs. The online survey method is widely used in quantitative research to collect data. Data were used to draw causal inferences between independent (GSCM) and dependent (EP) variables through mediating variables like agile and lean strategies. Almost 3.3 million SMEs work in Pakistan and contribute 30 per cent of Pakistan's GDP. This study targeted SMEs in Lahore, Gujranwala, and Faisalabad because all three cities have industrial zones. Workers of manufacturing firms have been taken as a sample in these three cities, and the population is unknown. Only 447 respondents participated in the online survey; out of them, 12 data points were incomplete. Therefore, the sample remains 435 respondents. After the initial screening and cleaning process, 34 respondents' results were removed due to outliers. So, the final sample size is 401.

Data Analysis

To avoid biased results, the data set normality is reviewed by both methods, i.e., univariate and multivariate outliers. Multivariate outliers are checked with the help of the Mahalanobis D2 test. Multivariate outliers are cases with an unusual combination of values for several variables. The rule of thumb for the multivariate outlier in this method is that D2 is less than 0.001. Due to outlier 34, respondents' results are removed from the data set.

Principal Components Analysis

After the initial screening and sample adequacy, the next step in PCA is to check that the number of factors can be developed with the help of PCA analysis. In PCA analysis, we extracted all the items loading less than 0.30. Two items from each

construct in this study are excluded, except lean strategy; 1 item is excluded from the lean strategy in the analysis because all the items have a loading > 0.30, results shown in Table 1. The total variance explained in this study is that these six factors explain 68.074% of % variance. As per Kaiser Criterion, there is a need to check the screen plot, which clearly shows that there needs to be six components. In this study researcher established six components. Therefore, there is no need to exclude any components. The Montecarlo PA analysis is another way to determine how many elements are appropriate for this study.

Table 1: Factor Analysis

Variables	Pattern Matrix	
	Component	
Green Purchasing	GP5	0.883
	GP3	0.793
	GP1	0.740
	GP4	0.694
	GP2	0.676
Environmental Performance	EP4	0.782
	EP5	0.767
	EP3	0.647
	EP6	0.603
Agile Strategy	AS3	0.871
	AS2	0.823
	AS4	0.786
Eco Design	ED4	0.797
	ED3	0.726
	ED2	0.536
Cooperation with Customers	CC2	0.779
	CC1	0.707
	CC3	0.633

The first eigenvalue from SPSS and the matching first value from the random results produced by parallel analysis are compared in Table 2. The real eigenvalue from PCA is higher than the parallel analysis's criterion value (Watkins, 2000). Factor analysis aims to reduce significant variables into smaller components or factors. This technique is used extensively to develop and evaluate tests and scales by the researcher. In addition, this technique helps the researcher in scale development to transform a larger number of variables into a more manageable number (Pallant, 2013).

Table 2: Comparison of Eigenvalue from PCA and Criterion Value

Component	Eigenvalue from PCA	Criterion Value Parallel Analysis	Decision
1	6.124	1.2037	Accept
2	2.615	1.0960	Accept

3	1.562	1.0357	Accept
4	1.276	0.9628	Accept
5	1.087	0.8888	Accept
6	0.951	0.8130	Accept

The researcher must examine the sample adequacy and sphericity before determining the factorability. The Bartlett's test determines whether the data is appropriate for further analysis. In contrast, the KMO (Kaiser-Meyer-Olkin) test determines whether the sampling was adequate. KMO should be thresholded at 0.60 for factor analysis (Tabachnick & Fidell, 2001). The value of KMO 0.7 was also confirmed by Hair et al. (2006) to be suitable for the study's sample size. According to Table 4.3, the KMO statistic for the study's overall data remained 0.827. Bartlett's test of sphericity's cut-off value should be substantial (p 0.05). Bartlett's test result in this study was 0.000. These KMO and Bartlett results can be shown in Table 3.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.827
Bartlett's Test of Sphericity	Approx. Chi-Square
	2380.766
	Df
	190
	Sig.
	.000

Reliability Analysis

In the social sciences, the minimum value of Cronbach's Alpha that is considered acceptable is 0.70. (Hair et al., 1998). The minimum value of Cronbach's alpha regarded as acceptable is 0.60. (Nunnally et al., 1994). The reliability of the measurement scales used for all of the study variables is presented in Table 4.4.

Table 4: Reliability Analysis

S.No	Scale	No. of Items	Cronbach's Alpha
1	Eco-Design	3	0.747
2	Cooperation with Customer	3	0.719
3	Green Purchasing	5	0.866
4	Environmental Performance	4	0.823
5	Agile Strategy	3	0.810

Table 5: Descriptive Statistics

Variables	N	Min	Max	Mean	S.D
Eco-design	401	1	5	4.18	0.84
Cooperation with the customer	401	1	5	3.9	0.83
Green purchasing	401	1	5	4.11	0.92
Environmental performance	401	1	5	3.85	0.8
Agile strategy	401	1	5	4.06	0.82

Table 6 displays the correlations between the study's variables. The strength

of the correlation between two variables can be seen. A positive and statistically significant association exists among the study variables.

Table 6: Correlation Table for Study Variables

	ED	CWC	GP	EP	AS
ED	1				
CWC	.352**	1			
GP	.492**	.674**	1		
EP	.243**	.417**	.302**	1	
AS	.297**	.479**	.346**	.538**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

ED = Eco-design, CWC = cooperation with customer, GP = green purchasing, EP = environmental performance, AS = Agile strategy

Hypothesis 1: Agile strategy mediates the relationship between eco-design and Environmental performance.

We used Hayes and Scharkow's (2013) SPSS extension to evaluate the mediation effect of lean strategy between green supply chain management and environmental performance. The direct impact of green supply chain management on ecological performance was positive and insignificant ($\beta=.0871$, $p = .2137$). The indirect effect ($\beta = .1446$, $K^2 = .1575$, $LLCI = .0570$ and $ULCI = .2914$, $P < .05$) was significant as there is no zero value between the upper and lower limits of the confidence interval. The result showed agile strategy fully mediates the relationship between eco-design and environmental performance. Hypothesis 1 was fully supported.

Hypothesis 2: Agile strategy mediates the relationship between customer cooperation and Environmental performance.

We used Hayes and Scharkow's (2013) SPSS extension to evaluate the mediation effect of lean strategy between green supply chain management and environmental performance. The direct impact of green supply chain management on ecological performance was positive and significant ($\beta=.1994$, $p=.009$). The indirect effect ($\beta = .2037$, $K^2 = .2055$, $LLCI = .1013$ and $ULCI = .3260$, $P < .05$) was significant as there is no zero value between the upper and lower limits of the confidence interval. The result showed that agile strategy partially mediates eco-design and environmental performance. Hypothesis 2 was fully supported.

Hypothesis 3: Agile strategy mediates the relationship between green purchasing and Environmental performance.

We used Hayes and Scharkow's (2013) SPSS extension to evaluate the mediation effect of lean strategy between green supply chain management and environmental performance. The direct impact of green purchasing on environmental performance was positive and insignificant ($\beta=.1156$, $p=.077$). The indirect effect ($\beta = .1446$, $K^2 = .1736$, $LLCI = .0570$ and $ULCI = .2914$, $P < .05$) was significant as there is no zero value between the upper and lower limits of the

confidence interval. The result showed that agile strategy fully mediates the relationship between eco-design and environmental performance, as the direct relationship was insignificant. Hypothesis 3 was fully supported.

CONCLUSION

The primary purpose of this study, which takes a resource-based point of view, was to investigate and understand the influence of green supply chain management solutions on environmental performance. The resource-based view theory may lend credence to the topic. This research is supported by resource-based view theory based on the following characteristics: (a) an understanding of the characteristics of green supply chain management techniques that lead to superior environmental performance, (c) define the potential drivers of environmental performance, and (b) compare environmental performance on the grounds of recognisable features. Strategies for environmentally responsible management of supply chains were seen as critical strategic resources that contributed to an understanding of environmental performance. In addition, the outcome of the mediation showed that an agile approach acts as a positive mediator in the interaction between green supply chain management and its various dimensions, such as eco-design, customer cooperation, and green purchasing in relation to environmental performance. These findings provide evidence in support of hypotheses 1, 2, and 3.

The various supply chain management practices are connected because they allow an organisation to accomplish multiple tasks. These tasks include planning, communicating with different participants in the supply chain, managing demand, acquiring raw material, converting raw material, and distributing services and products. The effects of green supply chain management on timing, quality, and money all contribute to the success of agile and lean business methods. The environmental performance is significantly improved due to the integration of agile and lean methodologies. Previous research has suggested that for enterprises to increase their capabilities, they must first develop their own talents and then consciously work to preserve their connections, particularly with their suppliers (Day et al., 2015). As a result, companies want to build procedures that will enable them to generate value through connections with their suppliers. The evaluation and selection methods they use can assist when looking at different supply chain strategies. When selecting and analysing possible suppliers, businesses should focus not only on their capabilities and strategy, but also on those capabilities and strategies they need to improve, as well as the skills and techniques of the potential suppliers themselves.

The importance of dynamic and collaborative abilities to provide sustained financial and operational success has become increasingly crucial for businesses because these businesses must compete in a dynamic environment where customers want increasing services. Despite this, there are significant holes in the existing body of research when discussing establishing a green supply chain network and the

connection between this and an ongoing competitive advantage. The capacity to provide an explicit description of the drivers, processes, and mechanisms that connect supply chain cooperative initiatives to the establishment of dynamic abilities of agile and lean strategies to provide environmental performance that is valuable both in practice and theory.

This study reveals that implementing environmentally friendly techniques for supply chain management is an integrative ability that substantially impacts environmental performance. When different aspects of the environment are regarded as a single construct, the ecological practices can be comprehended more deeply. The total value that can be acquired from implementing these activities is significantly less than the total value that can be gained when all these practices are implemented together. The value of an organisation's internal resources is considerably higher than that taken individually (Shah & Ward, 2003). The resource-based theory of the company is supported by the idea that the incorporation of a variety of environmental practices can lead to an improvement in the organisation's competitive advantage. The outcomes of this research agree with the resource-based perspective theory, and they extend the resource-based theory to environmental activities and throughout green supply chain management (Inman & Green, 2018). The findings of this research are associated with the natural resource base concept, which highlights the need for enterprises to collaborate with natural environments to achieve a competitive edge (Hart, 1995; Li et al., 2016). It is generally the case that many environmental practices are connected; to gain a competitive advantage, the strategies must be path-dependent, embedded, and overlapping. Our findings are consistent; concurrently implementing multiple interconnected green supply chain management strategies may increase individual performance and collectively generate superior performance. This may be achieved by simultaneously implementing multiple green supply chain management strategies.

Limitations and future research

This research demonstrates that the combined implementation of green supply chain management solutions yields the best results. As a consequence of this, the manager needs to place equal emphasis on environmentally responsible supply chain management techniques both inside and outside the company. The performance of sound environmental practices could be jeopardised if only a limited number of ecological behaviours are emphasised. Manufacturing enterprises in developing nations like Pakistan need to establish an integrative green supply chain management expertise, as these companies aim to improve their international reputation and increase their appeal to developed countries. According to the findings of our study, an improvement in environmental performance is hypothesised to be both a precursor and an absolute necessity for achieving excellent cost savings. A contrast of our findings in Pakistan with results from prior research in America and China further supports a robust, comprehensive inference regarding the association between environmental strategies and business performance. In

evolving markets, environmental cost savings are attained. This research empirically supports environmental performance practices, particularly their deficits in the prime elements responsible for these supportive associations.

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