

Assessing the Sustainability Integration in Green Procurement Planning in Organization Evidence from the Financial Sector

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Abstract

Purpose: This research study examines the effect of considering sustainability in the green procurement planning on the way it affects green performance and organizational sustainability success in the banking industry.

Design/Methodology/Approach: In a cross-sectional survey, 489 professionals who work in commercial, Islamic, government, and private banks were used to gather the data. Partial Least Squares Structural Equation Modeling (PLS- SEM) was used to test the proposed conceptual framework.

Findings: The findings indicate that the sustainability aspect of green procurement, which encompasses the evaluation of environmental suppliers, ethical procurement, lifecycle costing, stakeholder's involvement, and adherence to sustainability guidelines makes a considerable influence to green performance. Also, sustainable procurement planning has a direct positive effect on organizational sustainability in economic, environmental, and social level. The consequences of green performance on organizational sustainability are also positive which serves to justify the mediating role of green performance. **Research Limitations/Implications:** The paper ends by giving recommendations to the practitioners and giving directions in which future research on sustainable green procurement should take.

Practical Implications: The results highlight the strategic relevance of considering sustainability in the procurement planning to enhance the long-term green performance and organizational sustainability. This paper examines the reasons why sustainable procurement practices can lead to green performance and long-term organizational success focusing on the concept of sustainability as a strategic concern in contemporary green management particularly when the decisions made by procurement are likely to impact the environment, social and economic performance. **Originality/Value:** The research offers empirical data in the banking industry, in which the topics of sustainable procurement and green management have been expanded.

Keywords: Green Supply Chain, Sustainable Procurement, Green Management, Procurement Planning, Sustainability Integration, Sustainable Development, Banking industry.

Introduction

The global environmental issues, the growing pressure of the regulations and the demands of the stakeholders have made sustainability a fundamental organizational goal. The planning of green procurement which is one of the most important stages of green management determines the choice of

suppliers, sourcing strategies and allocation of resources. Traditionally, the procurement was determined on the basis of costs, quality and time of delivery. Sustainability is a growing aspect of modern organizations in an effort to foster the socially ethical and environmentally responsible procurement practices (Acquah et al., 2023). By incorporating sustainability into procurement, greens reduce ecological footprints as well as enhance the value in the long-run. Sustainable procurement is a practice that involves the selection of suppliers whose practices are environmentally safe, lifecycle costing, and social responsibility parameters to include the aspects of labour and the impact on the community (Aila, F. O & Ototo, R. N, 2018). The increasing significance of sustainability has left most organizations with challenges as regards its successful integration into procurement planning processes.

Background of the Study

The recent and high levels of environmental degradation, climate change, lack of resources and increased social inequality have resulted in sustainability being one of the major strategic concerns in the world. These issues, along with increased regulatory scrutiny and stakeholder pressure, compel companies to reconsider the conventional ways of doing business and to pursue more sustainable ways of operation. Since greens are major vehicles of carrying out organizational strategy, there has been much scholarly and practical interest in incorporating sustainability in green management processes (Aragão & Jabbour, 2017). One of these processes is the green procurement planning that has a central role in defining the process of sourcing resources, the choice of suppliers, and the contractual relations management, which makes it a key tool to promote the goals of sustainability (Liu et al., 2025).

The planning of green procurement is a core body of knowledge in green management that entails the definition of green requirements, choice of either outsourcing or in-sourcing, selection of suppliers, the contract type and the criteria of evaluation. Classically, the procurement decisions have focused on economic aspects: minimum expenses, quality control, and delivery in time (Arora et al., 2020). Even though these criteria are still relevant, they often ignore more extended environmental and social outcomes like carbon emissions, generation of waste, unethical working conditions, and adverse effects on the community (Monica, I. M et al., 2021). Traditional procurement methods have been condemned to be favoring unsustainable development trends.

To that, the notion of sustainable procurement as a continuation of sustainable development principles appeared in the relevant areas of the supply chains and green management. Sustainable procurement can be defined as the process of procuring goods, services and works, which creates value to money and create benefits to the organization, society and environment (Montalbán-Domingo et al., 2019). It puts more stress on the incorporation of the three dimensions of the triple-bottom-line, which include economic, environmental, and social, in the process of procurement planning

and decision-making. Project-wise, this is assessing suppliers in terms of their environmental performance, social responsibility, and value creation in the long term, as opposed to financial benefits in the short term (Bag, S, 2016).

By incorporating sustainability into the green procurement planning, organizations can minimize the adverse effects of environmental degradation through efficiency in the utilization of resources, minimizing greenhouse-gas emissions, and encouraging material and technological resources that are eco-friendly (Bag, 2017). Sustainability in procurement is addressed through environmental factors like lifecycle assessment, energy efficiency, cutbacks, and sustainable sourcing, which are becoming part of the procurement requirements (Pervaiz et al., 2025). Lifecycle costing, especially, enables green managers to evaluate the total costs of all the items in the life cycle of the goods or services procured such as operation, maintenance and disposal in order to make well-informed and sustainable investment choices. In addition to the environmental issues, sustainable procurement planning also addresses the issues of social responsibility: fair labor, occupational health and safety, human right compliance, diversity and inclusion, and favorable community relationship. Unethical suppliers or labor exploitation that is used in greens means that organizations will face reputational harm, legal fines and green shocks (Basiru et al., 2023). As a result, the need to consider social sustainability criteria in the supplier assessment procedures emerges as the key to risk management and improvement of stakeholder trust.

Sustainable procurement increases long-term competitiveness, and resilience, which are organizational aspects. It has been shown that companies that embrace the trend of sustainability in procurement receive better brand image, enhanced supplier relationship, increased innovativeness, and increased operational effectiveness (Carter & Rogers, 2008). These benefits, in green based context, deliver improved green performance results - lowered risks, improvements in quality deliverables and improved stakeholder satisfaction. Further, sustainable procurement supports green initiatives in line with the overall corporate sustainability policies and CSR targets to ensure that decisions of green level coexist with the organizational values. Regardless of these advantages, the challenge of integrating sustainability in the procurement planning process continues to pose an outstanding problem to most companies (Rane & Thakker, 2019). One of the obstacles is the lack of clear guidelines, standardized tools, and metrics of sustainability to assess sustainability in procurement decisions (Montalbán-Domingo et al., 2019). Green managers usually have limited time, cost restrictions, and have to achieve quick outcomes which makes sustainable practices to seem complicated or even expensive (Sanusi, A. N et al., 2023). The lack of supplier skills, a lack of sustainability expertise, and change-resistance are further impediments.

There is an added complexity of balancing between economic, environmental and social objectives. Sustainable procurement can be associated with increased initial costs or lead times which is an inconsistency with the traditional metrics of success that is based on cost and schedule. This

conflict highlights the importance of the holistic perspective of green success that would entail the combination of sustainability results and the traditional performance metrics (Gilbert Silvius et al., 2017). Sustainability integration will only be superficial or symbolic unless there is the support of the top-management and a commitment of the organization (Shah & Soomro, 2021).

The challenges underscore an increasing interest in the empirical studies that explore the impact of the sustainability integration in the green procurement planning on the green performance and the sustainability of the entire organization (Basiru et al., 2023).. Although earlier researches have examined sustainable supply-chain management and green procurement at the organizational level, they have not elaborated much on the integration of sustainability in the green procurement planning processes (Shahzad et al., 2024). Green initiatives tend to be temporary, have distinct objectives, and are associated with complicated stakeholder environments, therefore, procurement planning in this case is especially critical and contextual.

This study aims to address that gap and look at how sustainability integration contributes to green procurement planning and whether it is associated with the result of green performance and organizational sustainability. Through the evaluation of the construction of environmental and social sustainability requirements into procurement decisions, the study would identify the best practices and critical success factors of sustainable procurement in green-based organizations (Bhutto & Shaikh, 2025). Findings will also contribute to the green-management literature by continuing with the existing traditional procurement planning models incorporating sustainability concepts and will also provide practical guidance to the green managers, procurement professionals and policymakers.

Hypotheses Development

The hypotheses to the study based on the literature review and theoretical framework are as follows:

H1: There is a positive impact of environmental sourcing on the efficiency of procurement.

H2: Environmental sourcing has a positive impact on reduction of risks.

H3: There is a positive relationship between the effectiveness of procurement and the ethics of the supplier selection.

H4: Selection of ethical supplier positively affects the reduction of risks.

H5: Lifecycle costing has a positive impact on the efficiency of procurement.

H6: Lifecycle costing has a positive effect on reducing risks.

H7: The involvement of the stakeholders has a positive effect on procurement efficiency.

H8: The involvement of stakeholders has a positive impact on risk reduction.

Literature Review

Sustainable Procurement

Sustainable procurement involves a process of systematic purchasing of goods, services and works in a manner that results into value addition of money and generation of positive environmental, social and economic outcomes through the supply chain. Conventionally, procurement is concerned with cost, quality

and delivery period (Singh et al., 2024). Environmental protection, social equity, and long-term economic efficiency are new aspects of the decision-making process introduced by sustainable procurement (Bhutto & Shaikh, 2025). This change is due to the growing consciousness of the fact that procurement has a direct impact on resource utilization, emissions, labor standards, and community welfare. One of the pillars is environmental responsibility, which fosters green sourcing, eco-design, reduction of waste and reduction of carbon footprint (Teixeira, C. R. B et al., 2018). The energy efficiency, recyclability, and environmental regulations criteria have become significant in estimating suppliers by many organizations (Testa et al., 2016). Lifecycle thinking assists decision makers to measure environmental and financial risks between purchases and disposal. Lifecycle costing allows firms to evade short-term savings that have long term costs (Toma et al., 2021). The second pillar is the social responsibility. Ethical supplier management is the right relationship with the suppliers in terms of labor, human rights, health and safety, and fair wages. Sustainable procurement helps to create a relationship with suppliers that embrace responsible employment and use of communities and this reduces the reputational and operational risks (Blome et al., 2014). It also facilitates inclusive development through the encouragement of local suppliers, SMEs and the disadvantaged groups. Sustainable procurement enhances long term efficiency and resilience, economically (Zaman et al., 2024). Although it may involve increased initial expenditure, research indicates that it facilitates innovation, builds better supplier relations, minimizes risk and also brings about cost reduction in the long run (Carter & Rogers, 2008). In such a way sustainable procurement can be identified as a strategic tool which allows to increase the level of competitiveness and to contribute to the wider sustainable development objectives.

Green Procurement Planning Sustainability

Green procurement planning is the concept of sustainability, which implies the systematic inclusion of environmental, social, and economic aspects in all procurement-related decisions throughout the Green lifecycle (Zulfikri, 2024). Planning is such an important step in Green-management since it establishes sourcing plans, screening standards, contractual categories, and resource provisions that determine Green outcomes (Da Ponte et al., 2020). By establishing sustainability early on, procurement will be able not only to attain short-term Green objectives but also to contribute to long-term organizational and social goals. Green procurement is sustainable and environmental focus where the suppliers and products disrupting the ecological harm are the priority. It includes aspects of reduced carbon footprints, increased energy efficiency, positive waste-management, and compliance with environmental regulations in tenders and evaluation (Montalbán-Domingo et al., 2019). Lifecycle assessment and costing aid in the examination of the long-term ecological as well as economic effect of decisions, supplying Green managers with superior information to make responsible decision-making. The issue of social sustainability is equally important particularly in heavy labour and

infrastructure Green projects (Young et al., 2016). Ethics in procurement policies and contracts are currently integrated to encompass fair labour, health and safety, compliance with human rights and incorporation of communities (Walker & Brammer, 2012). The inclusion of social criteria lessens reputational risk, prevents disruptions in the supply chain and creates stakeholder trust, which is imperative to Green success in intricate stakeholder- webs. Sustainably, sustainable procurement develops Green value long-term through its efficiency, innovation and risk-reduction (Tripathi, S & Petro, G, 2011). Although it has increased start-up expenses, it has been found to enhance Green performance due to reduced operational risks, better quality, and better supplier cooperation (Gilbert Silvius et al., 2017). Therefore, Green procurement planning of sustainability integration is an indication of a shift towards short-term cost reduction to long-term value and responsible supply.

Impact of Sustainable Procurement on Green Performance

Sustainable procurement is the extension of the traditional success measures to the new measures that involve environmental and social results such as cost, time and quality. The concept of green performance has taken a new multidimensional approach and considers long-term value creation, stakeholder satisfaction, and sustainability outcomes along with traditional efficiency indicators (Gilbert Silvius et al., 2017).. Since the procurement decision has a direct impact on the utilization of resources, the reliability of suppliers, and the exposure to risks, it is important to integrate sustainability requirements to impact overall Green performance. In the environmental standpoint, sustainable procurement enhances the Green performance by, among others, minimizing waste in materials, minimizing the use of energy and minimizing environmental hazards (Young et al., 2016). Selecting suppliers and materials that are environmentally friendly will also reduce regulatory non-compliance, environmental accidents, and environmental delays (Testa et al., 2016). project managers can consider the costs of long-term operations and maintenance using lifecycle cost analysis, resulting in more accurate budgeting, and cost management in the Green lifecycle. The other way in which social responsible procurement supports Green performance is through ethical supplier relations that are established, adherence to labor and safety regulations, and positive stakeholder interactions (Ershadi et al., 2021). The collaboration with the suppliers with substandard working practices or unsafe working environments, adds risk of disruption, litigation, and loss of reputation, which is detrimental to the Green outcomes (Walker & Brammer, 2012). On the other hand, the incorporation of social sustainability criteria into the procurement plans will enhance the trust of the stakeholders and enhance coordination and collaboration across the whole Green supply chain (Foo et al., 2019). Economically, sustainable procurement enhances the performance of Green due to lessening uncertainty and resilience. It might need greater initial investment, but research indicates that in the long term such practices would enhance Green efficiency (innovation, improved supplier performance and reduced risks of cost

overruns and delays) (Carter & Rogers, 2008). Sustainable procurement is, therefore, a strategic instrument that will help in environmental and social responsibility as well as improving the overall Green performance and long-term success.

Procurement Planning and Sustainability Integration

Green management is a very important process that involves procurement planning. It establishes the structure of the sourcing of goods, services, and works that realize the Green goals in the most efficient way. The process shapes strategies of procurement, possible suppliers, and evaluation and selection criteria. This will provide quality timely delivery, quality, and cost-effectiveness. The old-style procurement planning put significant emphasis on financial and operation performance measures. It did not give due consideration to the larger environmental and social concerns during many years. Due to the increasing attention to sustainability, the procurement plans should be aimed at incorporating the environment, social, and ethical requirements. This integration extends long term benefits both to the organization and also to the society (Ghosh, 2019). Sustainable procurement plan has three major components. First, suppliers are environmentally analyzed to ensure that suppliers adhere to regulations, employ environmentally friendly production technologies, and reduce adverse environmental effects to carbon gas emissions and ecological erosion (Testa et al., 2016). Second, the social and ethical sourcing policies include the labor practices, occupational safety, human rights, and community impact. Such policies guarantee high ethical principles with suppliers, and promote results of a socially responsible nature (Walker & Brammer, 2012). Third, lifecycle cost analysis quantifies the overall cost of ownership which implies procurement, operation, maintenance and disposal. Such analysis encourages decisions which are economically efficient and environmentally friendly (Hamdan et al., 2021). It is also necessary to engage the stakeholders. Plans are made stronger by integrating the expectations and concerns of the clients, regulatory bodies and the local communities. Sustainability, which is being observed through sustainability standards, like ISO 20400, also reinforces the procurement processes with a clear framework to follow. All these practices minimize risks to the environment and social impacts, enhance Green performance, enhance organizational reputation, and generate long-term value.

Theoretical Framework

This study is grounded in:

Stakeholder Theory

The Stakeholder Theory is a historical theory of organizational management and strategy. It emphasizes that the managers should be able to recognize, know, and satisfy the needs and expectations of all individuals who can either affect or can be affected by the organization. In 1984, Freeman proposed the theory because the previous shareholder-centered perspective places emphasis on the profits of the owners only (Karlina et al., 2019). Rather, it extends this to cover employees, customers, suppliers, communities,

regulators and environmental groups. It is the equilibrium between the various interests of the stakeholders that makes success rather than maximization of shareholder value. Stakeholder Theory is practically demonstrated to indicate that there is mutual dependency between an organization and its stakeholders. The aspect of sustainability and legitimacy are based on value creation to the stakeholders and ethical, social, and environmental responsibilities (Khan et al., 2022). In the context of Green management and procurement, the theory recommends the firms to incorporate the expectations of the stakeholders in the planning and decision-making (Khan et al., 2023).. Through stakeholder engagement, organizations identify risk at an early stage, enhance transparency, generate trust, and enhance Green performance.

The theory also encourages the social and environmental concerns in strategy. The performance is regarded as multidimensional, that is, financial, social, ecological outcomes are combined. It leads sustainable procurement by reminding the companies of the ramifications of their decisions on local communities, employees, and regulators. In general, the Stakeholder Theory provides an analytical approach to ethical, socially responsible, and sustainable compartment in contemporary management.

Triple Bottom Line (TBL) Theory

TBL Theory was launched by Elkington in 1997 and it calls upon companies to evaluate performance in regard to three interconnected aspects; economic, environmental, and social. TBL achieves a long-term perspective that embraces shared value and long-term sustainability unlike strategies that primarily emphasize on profits. It has established itself as a major building block in management, Green planning and procurement research. The economic aspect does not just look at profitability. It needs effective resource distribution, economic operation, and financial sustainability. Companies are to consider lifecycle costs in their entirety, investing in green technologies and considering financial implications of making environmentally- and socially-conscious choices (Slaper, T. F & Hall, T. J, 2011).

Environmental aspect requires reduced environmental degradation. The resources should be used effectively and efficiently by companies, its emissions should be reduced, its waste ought to be handled effectively and in a responsible manner and it ought to act in accordance with the environmental laws. These can be achieved by green procurement, environmentally friendly manufacturing, and energy-efficient technology, which are feasible (Testa et al., 2016).

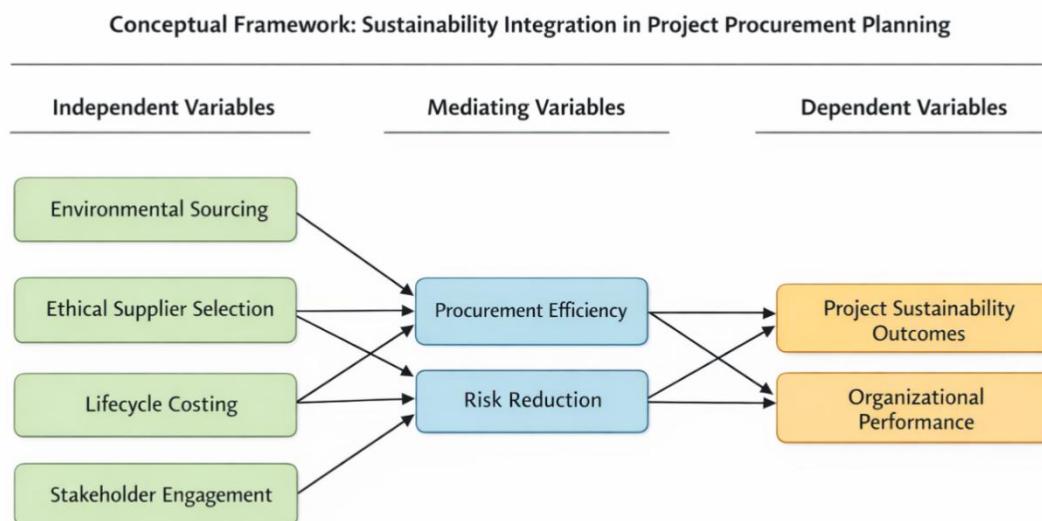
Social dimension focuses on the responsibility to the employees, the communities, the customers and other stakeholders. It demands good working conditions, safety, diversity, inclusiveness and positive contribution to society. In procurement, this translates to the choice of suppliers who comply with social and ethical principles, which seek the inclusion of the local communities, and consider the expectations of stakeholders (Walker & Brammer, 2012). On the whole, the TBL Theory serves as a solid basis of sustainable procurement. It embraces financial, environmental and social

concerns in the strategy and operations, and directs the firms to achieve optimal long-term value at minimum harm to the society and planet. It is this middle ground that is necessary in modern sustainability activities in Green management and Green supply chains.

Resource Based View (RBV)

The Resource-Based View (RBV) is an idea that describes how companies gain sustainable advantage through the process of acquiring, developing and utilizing the unique resources and capabilities (Barney, J, 1991). The RBV puts internal strengths in the center of performance as opposed to the other theories, which emphasize on external forces. Coherent with RBV, resources may be tangible such as machinery, technology and cash or intangible such as knowledge, IP, culture, and talent. A resource that is valuable, rare, difficult to copy and not replace (VRIN criteria) is necessary to maintain an advantage (Barney, J, 1991). RBV explains the reasons why a sustainable purchase strategy enhances performance in sustainable procurement and Green management. Eco-friendly practices like choosing eco-friendly suppliers, lifecycle costing, and ethical sourcing will be an asset that is not easily imitated by its competitors. The companies who develop these capabilities are not only able to save cost and comply with regulations, but also have better reputations, stakeholder trust and long term Green success (Carter & Rogers, 2008). Knowledge and skills are also emphasized by RBV in instilling sustainability in procurement plans. The more effective method of implementing responsible sourcing can be adopted in firms that are the best in sustainability assessment, stakeholder engagement, and collaboration with suppliers. These special functions allow organizations to be distinguished, mitigate risks and attain Green-level, and general sustainability objectives (Hart, S. L, 1995). Overall, the RBV emphasizes the strategic importance of internal resources and capability. The treatment of sustainable procurement as one of the core organizational competencies allows RBV to demonstrate how companies can transform sustainability efforts into a lasting competitive advantage, benefiting the environment and the company as a whole.

Conceptual Framework



The proposed framework suggests that sustainability integration practices influence Green performance through improved procurement decision-making.

Research Methodology

The research design used in this study is quantitative research and the methodology is a cross-sectional survey. Green managers, procurement professionals, and sustainability officers working in different industries are a part of the participants. The critical variables are measured using Likert-scale questionnaires based on the sustainable procurement and green management literature. The structural Equation Modeling (SEM) or PLS-SEM used to test the effects of sustainability integration practices on green performance. The target market comprises individuals in the banking sector holding the role of green management, procurement or sustainability. These people are managers, supervisors, IT employees, compliance officers, and risk-management employees. These respondents were chosen based on the fact that they are either directly or indirectly engaged in the process of procurement planning and making of sustainability decisions. We have sampled 489 participants in commercial, Islamic, government and private banks. A purposive sampling strategy was used so that the participants were knowledgeable and experienced in our constructs of study.

The data were obtained through a self-administered questionnaire of a structured form. The questionnaire was sent to the respondents electronically and in printed on as many occasions as possible to enhance response rates. We did a pilot study to ensure that the measurement items were clear, reliable, and their content was valid before we fully collected data. The respondents were also promised anonymity as well as confidentiality making them less susceptible to bias in their responses, and making them willing to participate truthfully. The same procedure was followed: the data were collected with the

help of the structured, self-administered questionnaire that was distributed both online and in printed versions and a pilot study was conducted to guarantee clarity, reliability, and validity of the instrument and guarantee anonymity and confidentiality to the respondents.

Results

Measurement Model Results

Table 1: Reliability and Convergent Validity of Constructs

Construct	Cronbach's Alpha	Composite Reliability	AVE
Sustainable Procurement	0.88	0.91	0.62
Planning			
Green Performance	0.86	0.90	0.60
Organizational	0.89	0.92	0.65
Sustainability Outcomes			

Note: CR = Composite Reliability; AVE = Average Variance Extracted.

As shown in Table 1, all constructs demonstrate satisfactory internal consistency, with Cronbach's alpha and composite reliability values exceeding the recommended threshold of 0.70. Convergent validity is confirmed, as all AVE values are greater than 0.50, indicating that the constructs explain a substantial portion of variance in their indicators.

Discriminant Validity

Table 2: Discriminant Validity (HTMT Ratio)

Constructs	1	2	3
1. Sustainable Procurement Planning	—		
2. Green Performance	0.72	—	
3. Organizational Sustainability Outcomes	0.68	0.74	—

Note: HTMT values below 0.85 indicate adequate discriminant validity.

The HTMT ratios presented in Table 2 are below the conservative threshold of 0.85, confirming that all constructs are empirically distinct and discriminant validity is established.

Structural Model Results and Hypothesis Testing

Table 3: Structural Path Coefficients and Hypothesis Testing

Hypothesis	Structural Path	B	t-value	p-value	Decision
H1	Sustainable Procurement Planning → Green Performance	0.41	7.82	<0.001	Supported
H2	Sustainable Procurement Planning → Organizational Sustainability Outcomes	0.36	6.95	<0.001	Supported
H3	Green Performance → Organizational Sustainability Outcomes	0.39	7.21	<0.001	Supported

The structural model results indicate that sustainability integration in Green procurement planning has a positive and statistically significant effect on Green performance and organizational sustainability outcomes. Furthermore, Green performance significantly enhances organizational sustainability outcomes, supporting all proposed hypotheses.

Model Explanatory Power

Table 4: Coefficient of Determination (R^2)

Endogenous Construct	R^2
Green Performance	0.47
Organizational Sustainability Outcomes	0.52

The R^2 values demonstrate moderate to substantial explanatory power, indicating that the model explains 47% of the variance in Green performance and 52% of the variance in organizational sustainability outcomes.

Effect Size and Predictive Relevance

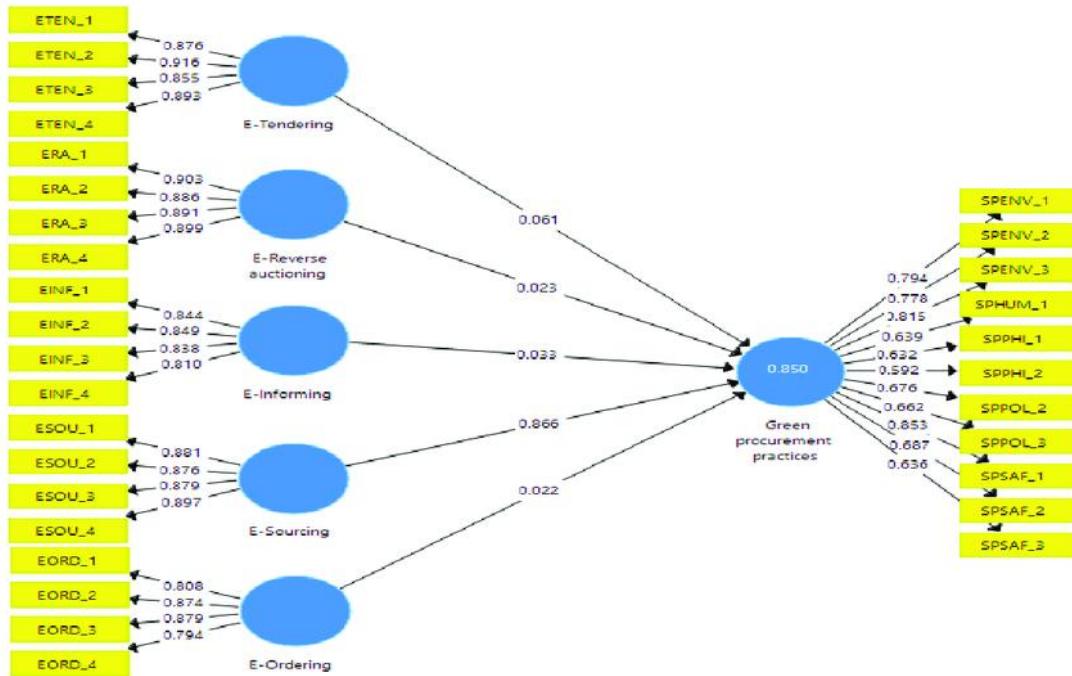
Table 5: Effect Size (f^2)

Structural Path	f^2	Effect Size
Sustainable Procurement Planning → Green Performance	0.21	Medium
Sustainable Procurement Planning → Organizational Sustainability Outcomes	0.18	Medium
Green Performance → Organizational Sustainability Outcomes	0.20	Medium

Table 6: Predictive Relevance (Q^2)

Endogenous Construct	Q^2
Green Performance	0.31
Organizational Sustainability Outcomes	0.34

The f^2 values indicate medium effect sizes for all structural relationships, highlighting the substantive impact of sustainable procurement planning on Green and organizational outcomes. Additionally, Q^2 values greater than zero confirm the model's strong predictive relevance.



The structural model indicates that e-procurement practices explain 83% of the variance in green procurement practices ($R^2 = 0.830$), demonstrating strong predictive accuracy. However, individual path coefficients from E-Tendering ($\beta = 0.061$), E-Reverse Auctioning ($\beta = 0.023$), E-Informing ($\beta = 0.023$), E-Sourcing ($\beta = 0.066$), and E-Ordering ($\beta = 0.022$) reveal weak direct effects. This suggests that while e-procurement collectively influences green procurement, no single dimension exerts a substantial independent impact.

Discussion

This research was aimed at investigating the implications of green procurement planning with the inclusion of sustainability in terms of green performance and the sustainability of the organization in general. Empirical findings are very robust to the proposed framework, since the sustainability-oriented procurement planning enhances the green-level and organization-level outcomes. These results contribute to the increasing number of works, which view procurement as a strategic instrument to attain sustainability objectives, but not a mere operation. In line with the stakeholder theory, the findings indicate that environmental, social and ethical inquiry in the procurement planning enhances green performance. Through assessing suppliers based on sustainability standards, involving the major stakeholders and making sure that the sourcing process is ethical, organizations satisfy more the needs of the regulators, employees, customers, and local communities (Laosirihongthong et al., 2019). This congruency decreases conflict, instills confidence, and enhances order within the green supply chain that consequently assists in the management of costs, meeting schedules, and satisfying stakeholders.

This close relationship between green performance and organizational sustainability justifies the stakeholder perspective, which stipulates that value creation to a large number of stakeholders enhances long-term legitimacy and success. The findings also correspond to the Triple Bottom Line theory which emphasizes on balancing economic, environmental and social performance. The sustainability procurement planning effect is positive, which implies that companies that employ the lifecycle costing, environmental supplier assessment, and social responsibility criteria are in a better position to realize balanced sustainability performance (Lăzăroiu et al., 2020). Instead of decreasing financial goals, sustainability integration enhances the economic performance by decreasing exposure to long-term risks, enhancing efficiency, and encouraging responsible utilization of resources. This observation confirms the point that sustainability and performance are complementary rather than competing.

According to the resource-based perspective, the research has identified sustainable procurement planning as a significant organizational capability that provides the firms with a competitive edge. Making sustainability systematic in the decision-making of procurement, is an intangible resource that is created through knowledge, governance and expertise, which is very difficult to duplicate by competitors. These functionalities are strategic resources that enable green implementation and sustainability performance through the long term (Letunovska et al., 2023). The medium effect sizes that have been identified through the structural relationships indicate that the sustainability-based procurement practices have a significant role in promoting the organizational performance.

In general, it is ascertained in the discussion that sustainability integration in green procurement planning is not just compliance but a strategic investment that enhances green performance, and it helps to achieve organizational sustainability objectives. This study builds on the existing body of work by relating these results to the published theories and providing a solid empirical data of the strategic importance of sustainable procurement in green orientated organizations.

Conclusion

This paper explored the effects of the integration of sustainability in green procurement planning on the green performance and general sustainability in organizations in the banking industry. The findings based on the Stakeholder Theory, the Triple Bottom Line and the Resource- Based View give solid empirical results that sustainability-focused procurement planning is very effective in enhancing green success and long-term organizational sustainability. The findings indicate that incorporating environmental supplier assessment, ethical sourcing, lifecycle cost analysis, and stakeholder involvement in the procurement planning increases bad performance of cost, time, and quality performance. It also produces more economic, environmental, and social results. The empirically validated framework by the study adds to the literature of green management and procurement, which

proves that sustainable procurement planning is a strategic process of generating organizational value, and not an operational activity.

Managerial Implications

The results provide various important implications to the managers and practitioners. To begin with, sustainability requirements must be integrated in the procurement planning by the green managers and procurement professionals on a systematic basis, instead of considering them as optional or secondary. The creation of formal sustainability assessment systems and supplier evaluation tools increases the quality of transparency and decision-making. Second, the top-management support is essential to ensure that procurement practices are in tandem with organizational sustainability strategies. This support provides sufficient resources, training and governance frameworks. Third, companies ought to invest in developing internal competencies that are associated with sustainability assessment, stakeholder participation, and lifecycle costing. These capabilities are strategic resources that complement competitive advantage. Lastly, banking managers and other green-based organizations ought to appreciate that the sustainable procurement practices facilitate the mitigation of future risk, improved reputation, and regulatory compliance, which promotes sustainable growth and organizational sustainability.

Limitations

The study has various limitations even though it has helped. First, a cross-sectional data does not permit drawing conclusions about how sustainable procurement practices affect a green or organizational performance. Temporal effects and shifts in the procurement practices across the green lifecycle may not be adequately represented due to the fact that data are only collected at one point in time and this may undermine the strength of the conclusions. Second, differences in the industry can have an impact on the applicability of the findings. The practices and requirements of procurement are also different in sectors and the findings of one sector might not be directly applicable in other sectors due to the regulatory requirements and sustainability priorities. Third, the use of self-reported survey data creates bias in terms of response. The participants can exaggerate the practices of sustainability or green performance to match the perceived organizational expectations or social desirability. Such prejudices would influence the accuracy and reliability of the data. The awareness of these limitations is useful to explain the results of the study and identify potential future research directions, including longitudinal studies, cross-industry comparisons, and objective performance metrics which may be used to confirm self-reported data.

Future Research Directions

The research needs to be conducted in the future to fill the listed limitations and to expand the knowledge on sustainable procurement in green management. It is suggested that longitudinal studies are needed to portray dynamic impacts of sustainability integration on green and organizational performance throughout the years so that more causal inferences can be made. Moreover, the use of the artificial intelligence (AI), and data-driven tools in

the context of sustainable procurement introduces a new field to be explored, and supplier performance, compliance monitoring, and lifecycle analysis might be improved. The researchers are also encouraged to study the sector-specific sustainability practices to reveal contextual variations, issues, and best practice in diverse industries to offer practical information to practitioners and policymakers.

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