

Systematic literature review: Theory perspective in green procurement

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Abstract: This paper presents a literature review of the theoretical background in green procurement research, aiming to enhance comprehension of the role of theory in the sustainable purchasing decision-making process. According to the PRISMA 2020 guidelines, we searched peer-reviewed journal articles that directly applied theory in Scopus and Web of Science, and identified 52 articles. Descriptive statistics indicate a significant increase in the number of publications based on theory since 2015, with a notable concentration in journals focused on sustainability and operations. The most prevalent theories are the RBV/NRBV, Institutional Theory, and Stakeholder Theory, while Contingency Theory, Transaction Cost Economics, Dynamic Capabilities, and Social Exchange appear to be less widespread. One-third of the studies combine two or more theories; the majority of these are single-lens-based studies. The field is both internal and external in its explanations, and theoretically narrow, with very little dependence on circular economy, sociotechnical, and behavioral approaches. To augment cumulative knowledge and practice, our suggestions are diversified and integrative theorizing, greater geographic coverage, and longitudinal/mixed-method design. The scholars and practitioners are enlightened by these lessons to develop stronger and more theory-oriented procurement research agendas.

Keywords: Green procurement, PRISMA, Sustainable procurement, Systematic literature review.

1. Introduction

With the emergence of globalization, increasing environmental concerns, and growing demands for sustainability, organizations must reassess their procurement and supply chain models to compete while also meeting regulatory and societal expectations [1]. Firms must periodically update their procurement strategies to maintain stable processes in the long term, as sustainability policies, environmental standards, and stakeholder requirements are continually evolving [2]. Procurement, which was formerly cost- and efficiency-oriented, has evolved into a strategic process that considers environmental and social goals during the decision-making process. This has led to the emergence of the green procurement strategy, which aims to minimize the ecological footprint, reduce waste, and promote sustainable development throughout supply chains [3]. Green buying can be described as a management philosophy that aims to generate economic, environmental, and social value. By incorporating sustainability into the purchasing process, companies aim to enhance competitiveness, minimize risks, and comply with growing Swedish requirements [4]. Nevertheless, the intellectual field of green buying, like other fields of management research, requires solid theoretical foundations. Without theory, studies would be descriptive, fragmented, and unable to understand the forces underlying organizational behavior [5]. Theoretical frameworks enable researchers to connect their results to a broader framework, explain inconsistencies in organizational adoption, and develop testable propositions that enhance our understanding [6].

Although green procurement is quite crucial in the real world, few studies in research have addressed the theories in this field in a rational manner. Primary studies are mostly founded on measures of drivers, obstacles, and practices recorded, without equivalent value in theoretical contribution [7]. Comparatively, theoretical views have begun to be integrated with existing empirical data on trends, leading to the acceptance of theories such as the Resource-Based View (RBV), Institutional Theory, and Contingency Theory within operations management and lean manufacturing disciplines [6]. The gap in this aspect reveals a great deal about the necessity of a systematic review of theory implementation in green procurement research, not only for its academic significance but also for its practical application.

The paper then undertakes a Systematic Literature Review (SLR) to determine the application of theories to studies on green procurement. The review combines and identifies the theoretical basis used by researchers, utilizing the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guideline. In this way, this study contributes to the enhanced comprehension of the intellectual environment surrounding research in green procurement and serves as a reference point for future studies to elaborate on the development of more concrete theoretical frameworks.

1. Which theories are the foundation of green procurement research?
2. How have these theories evolved and been applied in the course of time?
3. What areas and future directions are they?

This review, therefore, draws on previous research in operations management and sustainability studies, highlighting the theoretical focus in green procurement. It makes both practicing and researching scholars aware of beneficial information regarding how theoretical foundations can be applied to gain insights, provide explanatory power, and guide decision-making for the transition towards sustainable procurement approaches.

2. Literature Review

Theory has been regarded as one of the cornerstones of good academic research. For management and organizational science in general, theory is not merely a theoretical idea; it is a description, explanation, and representation of phenomena as observed or experienced. Fiorentino [8] defines theory as a systematic description, explanation, and depiction of phenomena observed or experienced. Theory application is required to advance research from descriptive lists of practice to cumulative knowledge, thereby enhancing both scholarship and managerial practice. Theories provide conceptual clarification, foster testable hypotheses, and permit generalizability across settings [9]. A lack of theoretical underpinning implies that research is piecemeal, anecdotal, or practice-oriented only, thereby undermining its value addition to the overarching body of knowledge.

In operations and supply chain management, criticism has been leveled at a lack of theory-based research. Zhan, et al. [3] observed that only a third of operations management articles in leading journals are theory-based. Similarly, Harry, et al. [10] emphasized that theory development and theory testing are underdeveloped, generating fragmented knowledge and minimal theoretical contributions. This criticism is particularly pertinent to green purchasing research, which has expanded rapidly due to environmental concerns, regulatory requirements, and social pressures, yet remains uneven in theoretical development [11].

Green purchasing, also known as sustainable purchasing or environmentally preferable purchasing, refers to the integration of environmental concerns into purchasing decisions and processes [12]. It encompasses a broad range of practices, including environmental assessments of suppliers, the use of eco-labels, life cycle assessments, and collaboration with suppliers for ecologically motivated innovation [2, 5, 6]. Green procurement is important because it has the ability to influence upstream supply chain practices, reduce environmental effects, and promote sustainable development. Despite its increasing prominence, the theoretical perspectives used to study green procurement are understudied compared to related disciplines such as lean manufacturing or supply chain sustainability in general [6].

2.1. Theory in Management and Sustainability Research

Theory in management research has a dual role. One, it has explanatory power, which enables researchers to understand what causes a given practice to emerge and how it produces its effects. Second, it offers forecasting capacity, enabling scholars and practitioners to predict future events. Several theoretical perspectives have been drawn from fields such as economics, sociology, and organizational behavior to explain management phenomena. Among them are the Resource-Based View (RBV), Institutional Theory, Contingency Theory, Stakeholder Theory, Transaction Cost Economics, and Dynamic Capabilities Theory, among others [13].

Theory is an essential component of sustainability research, particularly in bridging the gap between organizational activity and its subsequent ecological and social impacts. The most notable of these has been the Resource-Based View (RBV). It was developed by Rashid, et al. [14] and further developed by Barney [15], who argues that firms attain a competitive advantage by possessing valuable, rare, inimitable, and non-substitutable assets. This reasoning was developed by Hart and Dowell [9], who used the Natural Resource-Based View (NRBV), and the strategic resources were environmental practices and green innovations. NRBV has been applied in the green procurement study to clarify that environmental activities, including eco-design and cooperation with suppliers, can be distinctive competencies that help increase competitiveness [4].

One approach is Institutional Theory, where Centobelli, et al. [16] have also identified three key institutional pressures: coercive, normative, and mimetic, that drive organizational behavior. Government regulations and policies, normative pressure from professional bodies or industry standards, and mimetic pressure from the desire to follow pioneer firms can be traced as green procurement coercive pressures [17]. Institutional theory, therefore, justifies why firms would pursue green procurement as a means to enhance competitiveness or improve their performance, or because it enhances the legitimacy of firms and their responsiveness to external demands. Stakeholder Theory, developed by Freeman [13], suggests that corporations should also be guided by the interests of their stakeholders, in addition to the interests of their shareholders. The theory has been applied in procurement to explain how companies respond to the pressures of investors, NGOs, the community, and customers who demand environmentally friendly practices [3, 5, 14]. The pressures from stakeholders, thus, influence the implementation of green procurement rather than compliance, as part of a major corporate social responsibility.

Another dimension is introduced by the Contingency Theory, which posits that there is no such thing as a best practice. Rather, the strategic and situational fit is the key to the effectiveness of organizations [18, 19]. The theory is used in purchasing and describes the variability in the adoption of green practices by industry, geography, and institutional environment [15, 19]. In some cases, formal regulations exist, while others are more scrutinized by stakeholders or face competition, resulting in different purchasing approaches.

2.2. History of Green Procurement Research

The history of green procurement research can be traced back to the late 1990s and early 2000s, when environmental concerns began to influence supply chain management. Early studies focused on regulatory compliance, cost savings through efficiency, and building a reputation [20]. As sustainability agendas gained momentum globally, research broadened to include supplier relationships, green design, and life cycle costing [21]. Recent research has focused on how digital technologies, big data, and circular economic thinking are transforming procurement practices [14].

Despite all of this, theoretical discussion has been sporadic. Much research remains practice-oriented, identifying barriers such as cost, lack of supplier capability, and organizational resistance [22], but with minimal theoretical analysis. Others apply single theories, such as RBV or Institutional Theory, to explain adoption, but without consideration of multiple perspectives that acknowledge the richness of green procurement. Few employ theory integration, i.e., combining RBV with Institutional Theory to explain both internal resources and external legitimacy [23]. Compared to lean

manufacturing, systematic reviews have already mapped theoretical viewpoints [6], but green procurement remains disjointed.

2.3. Prior Reviews and Their Limitations

Various reviews have been conducted in the broader domain of sustainable supply chain management. Barney, et al. [18] provided an early typology, distinguishing pressures, practices, and performance consequences. Poppo, et al. [21] reviewed significant issues in sustainable supply chain research, but they documented a meager number of theory-based studies. Dubey, et al. [24] conducted a bibliometric and content analysis of green supply chain management, but predominantly focused on thematic domains rather than theoretical underpinnings. Similarly, more recent reviews focus on performance outcomes, collaboration, or information technologies, but hardly track the theories applied [25]. Operations management has had transparent reviews of views in theory. Hallinger and Walker [26] discussed theoretical traditions in operations management stringently, showing that RBV, Institutional Theory, and Contingency Theory were most widely used. Aripin, et al. [6] took this approach to lean manufacturing, summarizing Theory of Constraints, RBV/NRBV, and Contingency Theory as dominant frameworks. These overviews highlight the importance of integrating theoretical outputs. Sadly, no review of this nature has been conducted for green procurement. As a result, the field remains uncertain about which theories dominate, how they are applied, and where knowledge gaps exist.

2.4. Gap Identified and Reason for the Current Study

The absence of a unifying review of green procurement theoretical approaches is a significant limitation. In the absence of synthesis, the literature is fragmented, limiting cumulative knowledge and hindering the building of theory. As a result, researchers might unknowingly duplicate efforts or miss opportunities for theory integration. Practitioners and policymakers would also be denied access to theoretically informed views to develop effective procurement policies [27].

This study bridges that gap by conducting a systematic review of theoretical methods for green procurement. Following PRISMA 2020 guidelines, the review meta-analyzed peer-reviewed journal articles to identify the most employed theories, their applications, and how use has evolved. Through mapping the theoretical landscape, the study provides a foundation for future studies to move beyond descriptive research to theory-guided investigation.

3. Methodology

Systematic literature reviews (SLRs) are designed to provide transparent, comprehensive, and reproducible syntheses of educational literature. Compared to narrative reviews, which can be vulnerable to personal biases, SLRs employ systematic methods that minimize bias and maximize rigor [17, 28, 29]. In this research, the methodology employs the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines. PRISMA has now become the benchmark against which systematic review methodology is measured across academic disciplines, originally conceived and based on medical and health sciences, but now widely applied in management, operations, and sustainability studies [27]. The methodology ensures that article identification, screening, eligibility, and inclusion procedures are explained and reproducible [27].

The reason to apply PRISMA is the interdisciplinary nature of green procurement research, which spans supply chain management, sustainability, operations management, and organizational behavior. Lack of a strict format makes pertinent research unidentified, or inclusion becomes subjective. The framework of PRISMA provides a systematic review to selectively search through the enormous literature, make unambiguous decisions, and ensure the robustness of the findings.

3.1. Database Selection

Database choice is the primary factor that determines the scope of a review. Drawing on earlier operations and lean manufacturing research [6], this review primarily utilized Scopus, supplemented by the Web of Science (WoS) database. Scopus is a multidisciplinary, peer-reviewed journal literature database, the broadest in scope, encompassing journals from major publishers such as Elsevier, Taylor & Francis, Springer, Emerald, Wiley, Inderscience, SAGE, and IEEE. With high coverage and strong indexing functionality, it is best suited for cross-disciplinary subject matters such as procurement and sustainability [30]. Web of Science is included to ensure that no highly cited journals are missed that are only indexed in WoS. Other databases, such as ProQuest, EBSCOhost, and Google Scholar, were given due consideration but excluded due to methodological rigidity. Google Scholar, for instance, although broad, includes non-peer-reviewed content, such as reports, theses, and working papers, which can detract from the scholarly quality of the review [31]. To maintain consistency and replicability, Scopus and WoS were used, as both have credible indexing of peer-reviewed journals and enable complex keyword searches.

3.2. Search Strategy and Keywords

The search design aimed to understand the scope of green procurement studies, with a focus on specific theoretical contributions. The search adhered to systematic review requirements within the field of management sciences [5] and was structured around three major concepts: green procurement, sustainability in procurement, and theory. Keywords and their synonyms were employed as utilized in previous reviews [30, 32].

Boolean operators were used to expand the coverage, while truncations (e.g., procure) were employed to capture variations. Searches were limited to title, abstract, and keywords to render searches more pertinent. In ensuring quality, peer-reviewed journal articles were solely taken into account. The primary search yielded 348 articles in WoS and Scopus.

3.3. Inclusion and Exclusion Criteria

In accordance with the PRISMA guidelines, pre-specified inclusion and exclusion criteria were used to minimize bias. The criteria are detailed in Table 1 below, ensuring that only relevant, high-quality, and similar studies are included in the final synthesis.

Table 1.
Inclusion and Exclusion Criteria.

Inclusion Criteria	Exclusion Criteria
Peer-reviewed journal articles	Conference papers, book chapters, dissertations
Scopus/WoS indexed	Non-indexed or grey literature
English-language publications	Non-English publications
Empirical or conceptual studies explicitly using theory	Purely descriptive studies without theory
Focus on green procurement, sustainable procurement, or environmentally responsible purchasing.	Studies on general sustainability are not linked to procurement.

3.4. Screening and Selection Process

Screening was conducted in multiple stages, adhering to PRISMA guidelines. Stage one involved the exclusion of duplicates between Scopus and WoS outputs. This reduced the dataset from 348 to 312 unique articles. Stage two involved screening by title and abstract to exclude studies unrelated to procurement or lacking a theoretical component. Here, 179 articles were excluded, leaving 133 articles for full-text evaluation.

In the third step, full-text screening was conducted to ensure that articles specifically addressed the theory. Articles reporting on green procurement practices, drivers, or barriers, but without any theoretical foundation, were discarded. Similarly, articles discussing sustainable supply chain management in a general manner without a procurement focus were removed. This screening process

eliminated 81 articles. The final database, comprising 52 articles, met all inclusion criteria and served as the dataset for analysis. Figure 1 depicts a comprehensive flow diagram of the search process.

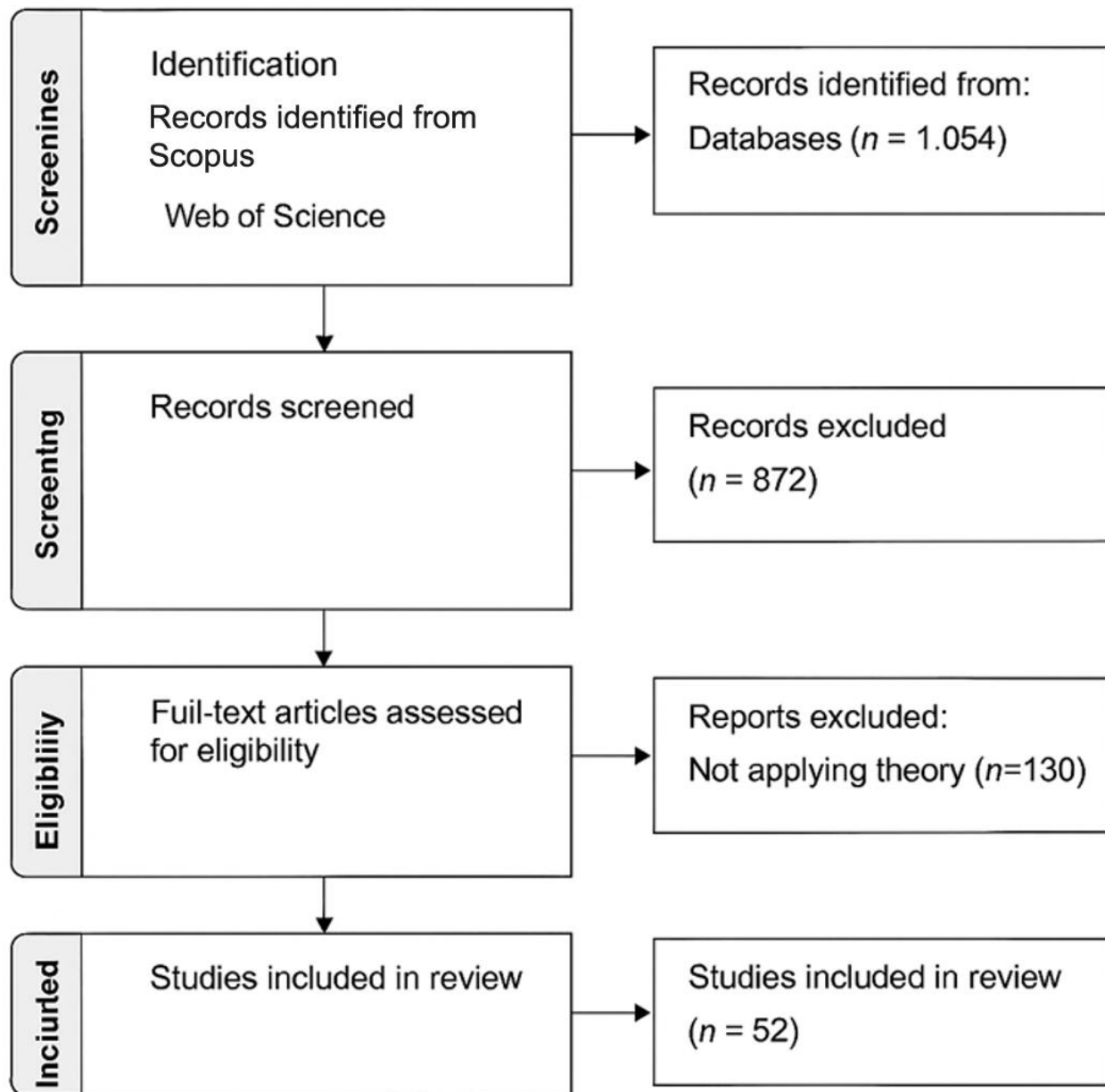


Figure 1.
Search Process Flow Diagram.

3.5. Data Extraction and Coding

When the final list of articles had been determined, data extraction was conducted. A coding protocol was created to note down in an organized way:

- Bibliographic details (author, year, journal).
- Geographical and sectoral emphasis.
- Theories employed (in isolation or combined).

- Research design (qualitative, quantitative, mixed-methods).
- Main findings and contributions.

The articles were coded independently by two researchers to enhance reliability; inconsistencies were resolved through discussion. This process aimed to ensure that the coding accurately captured the occurrence and application of theory, as well as temporal, geographic, and journal trends.

3.6. Reason for Methodological Decisions

The restriction to peer-reviewed journal articles is an effort to focus on consolidating well-reasoned scholarship that guides academic discourse. Conference papers and reports create new ideas, but their inclusion would lack rigor. Similarly, restricting the search to English-language journals ensures consistency, albeit at the cost of excluding non-English scholarship. The WoS and Scopus databases are suitable, given their comprehensiveness and appropriateness for systematic reviews. Scopus has been reported to be more comprehensive in its coverage of management and sustainability studies compared to Web of Science [32]. Together, they minimize the risk of exclusion without compromising academic quality.

3.7. Methodological Limitations

While methodology is guaranteed, limitations are inherent. First, reliance on English-language research excludes potentially relevant literature written in other languages, especially considering the global reach of green procurement. Second, emphasizing Scopus and WoS is inclusive but could overlook research indexed elsewhere. Third, the current working definition of "theory" remains as much in the eye of the beholder. There are potential exclusions that some studies include by implication but not by mention. Finally, systematic reviews are by nature a snapshot in time. As the topic of green procurement continues to evolve at an accelerating pace, future reviews will be compelled to incorporate additional theoretical perspectives that arise.

4. Results and Analysis

The purpose of this section is to present the descriptive and analytical findings of the systematic review. Following the PRISMA 2020 guidelines, the final dataset comprised 52 peer-reviewed articles that explicitly used theory in examining green procurement. The research was obtained from the Scopus and Web of Science databases and filtered through the inclusion and exclusion criteria presented in the methodology. The analysis is in two parts. The descriptive results comprise the first part, which includes the distribution of articles by journal, year of publication, and geographical setting. The second part comprises theory-focused analysis, specifically the types of theories employed, their frequency, and the proportion of each theory used alone or in combination with others.

4.1. Distribution of Articles by Journal

The 52 papers were distributed across a wide range of journals, testament to the interdisciplinary nature of green procurement studies. They were mostly in sustainability-focused, supply chain management, and operations journals. Leading journals included Journal of Cleaner Production, Sustainability, Supply Chain Management: An International Journal, and Business Strategy and the Environment. A slightly smaller proportion were in more general organizational or management journals, e.g., International Journal of Operations and Production Management and Resources, Conservation and Recycling. Figure 2 summarizes the journal and the number of articles published based on the percentage.

The Journal of Cleaner Production has high visibility, accounting for nearly one-third of the articles covered. This superiority aligns with previous bibliometric reviews of sustainability studies, which indicate that the journal has become the central forum for interdisciplinary research at the intersection

of environmental management and organizational practice [33]. The dispersion across multiple journals also demonstrates the spread of green procurement studies across various disciplinary frontiers, including management, environmental science, and engineering.

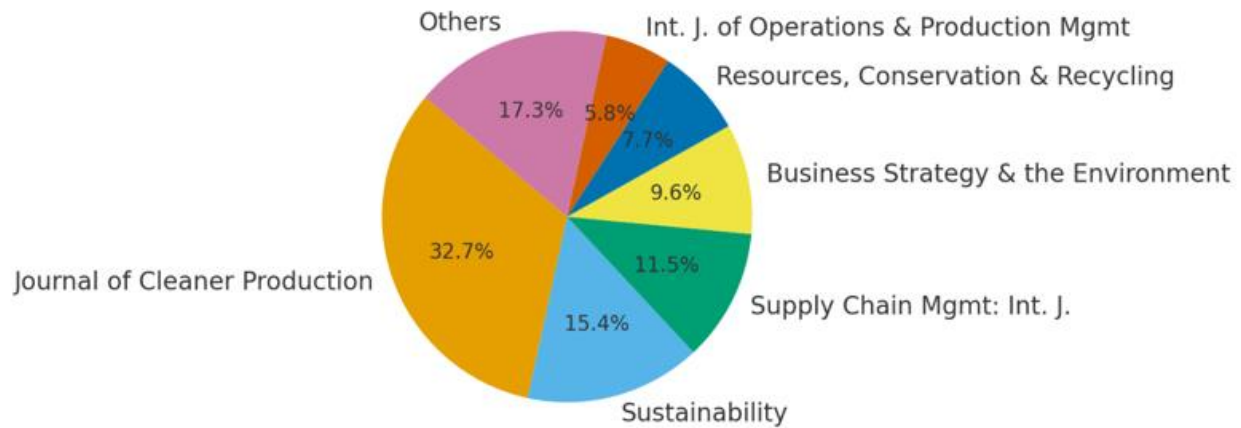


Figure 2.
Journal Distribution of Theory-Based Green Procurement Studies.

4.2. Distribution of Articles by Publication Year

The publication patterns examined reveal a significant increase in theory engagement in green procurement studies over the past decade. There was scarce early work in the 2000s and before 2010, with fewer than a dozen studies that had taken explicit theoretical frameworks. Between 2010 and 2015, there was consistent growth in tandem with the overall advent of sustainability as a research agenda in management sciences. However, the most significant growth occurred after 2015, with sustainability becoming central to global policy frameworks, such as the United Nations' Sustainable Development Goals [34] and the Paris Agreement on climate change.

Between 2015 and 2020, the number of theory-based articles on green procurement doubled, with particularly accelerated growth in 2018 and 2019. This reflects an increase in scholarly recognition of the importance of finding sustainability research within firm theoretical frameworks. During the most recent era (from 2020 until 2023), publication levels remained high, indicating that adopting theory is now emerging as a sustained trend in the field, as shown in Figure 3 below.

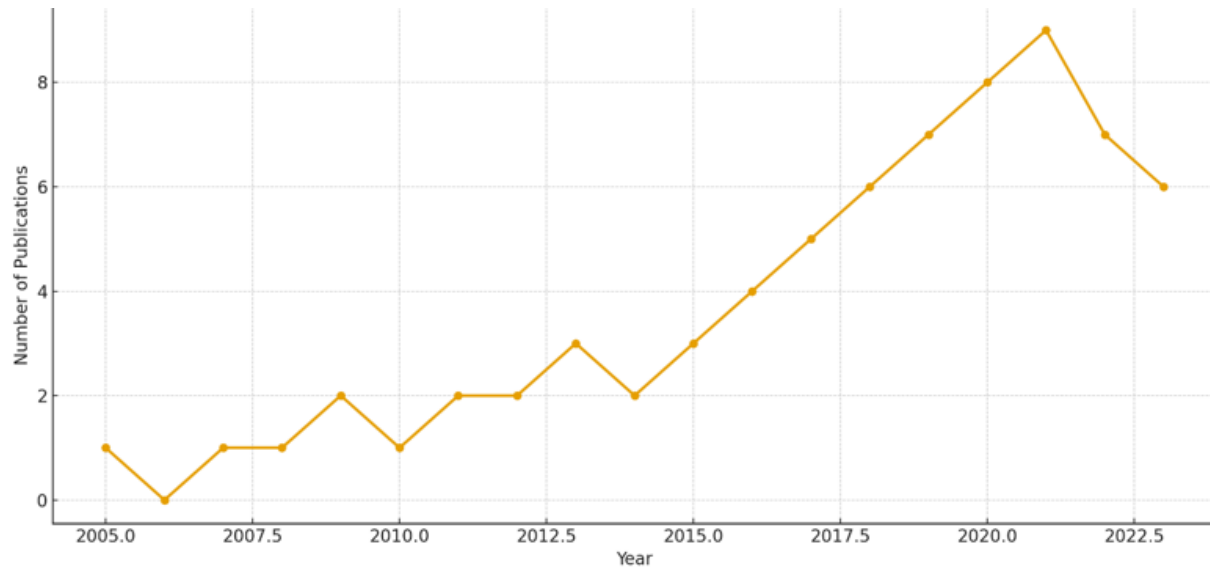


Figure 3.
Publication Trend of Theory-Based Green Procurement Studies (2005 - 2023).

4.3. Geographical Pattern

Geographically, the research works are an embodiment of international interest in green buying, but are localized in specific areas. Most empirical studies have focused on Asia, specifically China, Malaysia, and India, due to the importance of rapidly industrializing economies and their central positioning in global value chains [4, 35]. The European contexts, such as the United Kingdom, Sweden, and Germany, were also frequently represented, primarily through strong regulatory frameworks for sustainable purchasing [36]. North American studies were fewer, although they existed, while African and Latin American studies did not. This imbalance testifies to the global dissemination of green procurement practices and underscores the need for international coverage in future research.

4.4. Theories Applied in Green Procurement Studies

The primary objective of the review was to identify and discuss the theoretical frameworks guiding green procurement studies. Among the 52 papers, 14 different theories were identified. These ranged from highly developed perspectives, such as RBV and Institutional Theory, to less common constructs, such as Agency Theory and Practice-Based View. The complete list of theories, along with their frequency of use, is presented by the percentage of total studies in Table 2.

Table 2.
Theories Used in Green Procurement Research.

Theory	Frequency of Use (n)	% of Total Studies
Resource-Based View (RBV) / Natural RBV	17	32.7%
Institutional Theory	14	26.9%
Stakeholder Theory	11	21.2%
Contingency Theory	8	15.4%
Transaction Cost Economics (TCE)	5	9.6%
Dynamic Capabilities Theory	4	7.7%
Social Exchange Theory	4	7.7%
Agency Theory	3	5.8%
Practice-Based View	2	3.8%
Systems Theory	2	3.8%
Institutional Logics	1	1.9%
Circular Economy Theory	1	1.9%
Sociotechnical Systems Theory	1	1.9%
Behavioral Theories	1	1.9%

The results show that RBV/NRBV, Institutional Theory, and Stakeholder Theory collectively dominate, explaining over 80% of the studies. Contingency Theory is also quite common. Other theories, such as TCE, Dynamic Capabilities, and Social Exchange, occasionally emerge, while newer ones, like Circular Economy Theory and Institutional Logics, are rarely seen, as illustrated in Figure 4 below.

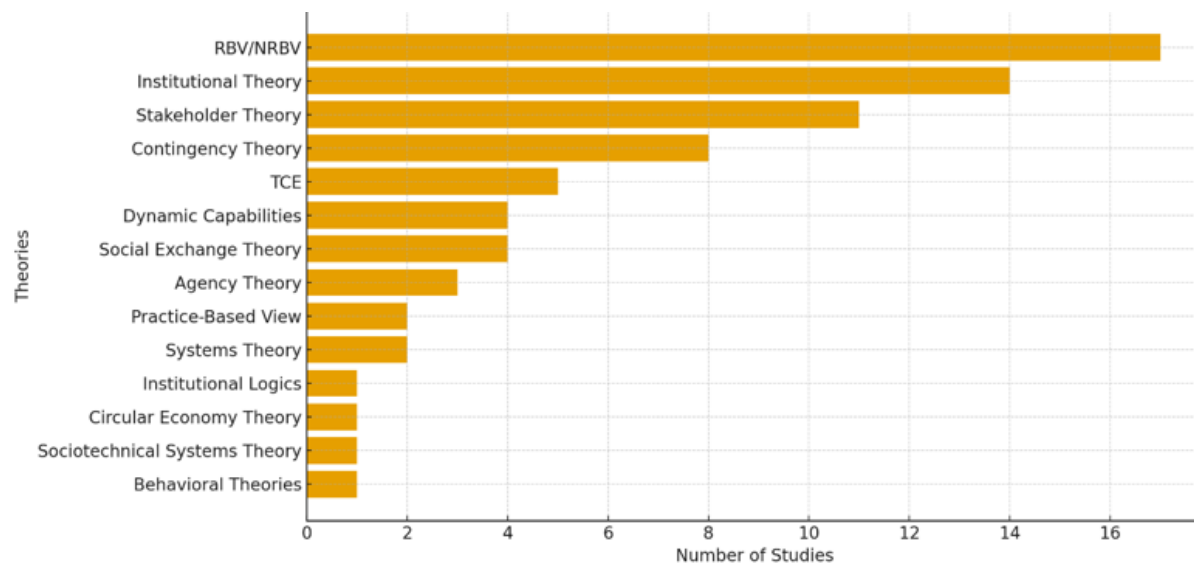


Figure 4.
Frequency of Theories Used in Green Procurement Research.

4.5. Single vs. Multiple Theory Application Analysis

Notably, it is worth highlighting whether studies employed theories individually or in combination. A majority of the studies (65%) relied on a single theory, most notably RBV or Institutional Theory. While these single-theory studies provided insightful results, they were found to offer incomplete explanations of the green procurement phenomenon. For example, studies that only drew on RBV emphasized internal capabilities and assets without accounting for external pressures. Conversely, Institutional Theory-based studies focused on external legitimacy at the expense of fully investigating internal resource dynamics.

A smaller but growing percentage of studies (35%) employed more than one theory, synthesizing views to provide richer explanations. For instance, several studies combined RBV with Institutional Theory to account for both internal capabilities and external pressures [37]. Others blend Stakeholder Theory and Contingency Theory to illustrate the variation of stakeholder expectations based on context. These integrated approaches are promising as they capture the richness of green procurement, which is simultaneously affected by resources, stakeholders, and institutional settings.

4.6. Evolution Over Time of Theoretical Usage

Research on trends over time reveals that theoretical usage varied. During the early phase, Institutional Theory and Stakeholder Theory were the most dominant, reflecting the focus on external legitimacy as well as pressures from stakeholders as drivers of adoption. As the field matured, RBV and NRBV gained prominence, emphasizing the shift toward viewing environmental practices as strategic assets. There have been more diversified perspectives in recent years, including Dynamic Capabilities, TCE, and Social Exchange Theory, which are attempts to codify relational and adaptive procurement components. However, the application of new theories is still scarce. For example, although policy and practice are increasingly focused on circular economy principles, there is only one study that has directly applied Circular Economy Theory. Likewise, Behavioral Theories and Sociotechnical Systems lenses, which might explain human and technological influences, are not leveraged.

4.7. Synthesis and Implications

The results also point to both strengths and weaknesses in the refinement of theoretical green procurement research. On the positive note, the increased use of RBV, Institutional Theory, and Stakeholder Theory suggests that scholars are grounded in empirically validated theoretical frameworks. The higher usage of integrative theories also indicates a propensity towards better theorization. On the negative note, emphasis on specific theories also indicates theoretical constraints, with little attention paid to novel or cross-disciplinary theories. The implications are significant.

To scholars, the predominance of a few theories provides a foundation for incremental scholarship, but it also risks a theoretical freeze. Future studies should expand the theoretical spectrum by examining less mature methods, such as Institutional Logics, Circular Economy Theory, and Systems Theory. For practitioners, the study suggests that most current theoretical knowledge emphasizes resource capabilities and external forces that can be leveraged to inform procurement strategies. However, relational and behavioral theories are undertheorized, limiting our understanding of how procurement practitioners interact with suppliers, stakeholders, and technology.

5. Discussion

This section aims to critically examine the findings that appear in the results, with special reference to the theoretical frameworks that inform research on green procurement. Discussion is presented under the overall dominant theories identified in the review, followed by an examination of lesser-used frameworks, integration patterns, and implications for scholarship and practice. This methodology offers an in-depth explanation of the theoretical realm, situating the findings within the broader context of operations, supply chain management, and sustainability research.

5.1. Preeminent Theories of Green Procurement

The results provide evidence that three theories, Resource-Based View (RBV)/Natural RBV, Institutional Theory, and Stakeholder Theory, dominate the literature on green procurement, accounting for more than 80 percent of all the studies reviewed. Their dominance is due to their ability to explain, as well as their high level of dominance in management research. It is particularly dominated by the Resource-Based View (RBV) and its spinoff, the Natural RBV (NRBV). Compared to NRBV, RBV emphasizes that special resources and capabilities can enable companies to achieve a sustainable competitive advantage [38, 39]. NRBV, on the other hand, modifies the framework by considering

environmental capabilities as strategic resources [9]. NRBV has been applied in green purchasing, enabling companies to compete by purchasing products in an eco-friendly manner, cooperating with their suppliers, and effectively utilizing available resources [4]. Its strength lies in the fact that it can position environmental practices not as mere compliance requirements but as a source of differentiation and sustainable advantage. However, RBV has also been accused of being inwardly biased, which occasionally fails to recognize external institutional pressures, as well as those that affect procurement decisions [40].

Institutional Theory offers a complementary approach, indicating that organizational practices are influenced by coercive, normative, and mimetic pressures [41]. Government policies, normative pressures from professional networks, and mimetic practices that emulate trend-setting companies are coercive pressures driving the adoption of green practices in purchasing [20, 42]. Institutional Theory explains why businesses will adopt sustainability actions despite their low confidence in the short-term economic benefits of these actions, as legitimacy and reputation will take center stage. However, the Institutional Theory has been reported to diminish the importance of agency, innovation, and firm-specific strategies [2]. In green procurement, this constraint is achieved by the fact that it is impossible to fully explain why some companies act out of compliance, yet they become creative in their approach to sustainable sourcing.

Stakeholder Theory emphasizes the way companies balance the interests of various stakeholders, including governments, customers, NGOs, and communities [29, 43]. For procurement, stakeholder expectations often serve as both enablers and obstacles to green projects. For instance, demand for environmentally labeled products from consumers can lead to faster uptake, but opposing supplier capabilities can slow down the process. This viewpoint is useful because it situates green procurement within interrelated systems of stakeholders, rather than viewing it as an entirely internal choice. That said, the theory has been criticized for being too broad and not sufficiently predictive, making it challenging to operationalize in empirical studies [17].

Together, these three preeminent theories complement each other in their insights. RBV/NRBV describes how internal capabilities enable sustainable advantage, Institutional Theory emphasizes legitimacy pressures, and Stakeholder Theory places stakeholder expectations in their context. The dependence on these views reflects the dual internal–external focus of green procurement. However, the emphasis on so few theories also threatens theoretical narrowness and stagnation.

5.2. Mid-Level Theories

In addition to the prevalent views, the review has identified several mid-level theories that were not as widely held, yet provided valuable insights. Contingency Theory is concerned with the necessity of adjusting a strategy to contextual conditions [44]. Green procurement has been used to consider industry and regional differences. An example is that the more regulated the industry in which a company operates, such as chemicals or electronics, the greater the coercive pressure; conversely, the less regulated the industry, the greater the voluntary take-up. Contingency Theory is an excellent methodology for identifying heterogeneity; however, it has been used sporadically and has not been sufficiently tested empirically.

Meramveliotakis [45] shared about Williamson's work, the TCE, and the governance structure in buyer-supplier relations. Green procurement can apply TCE to the motivations behind the internalization of sustainability practices, rather than outsourcing, because of the minimization of costs and reduction of risks. Although a conceptually strong form, it has been used sparingly, possibly because green procurement is a multidimensional concern that transcends the traditional thinking of transaction costs.

It has also been described, with the help of the Dynamic Capabilities Theory [17], as companies restructure their procurement processes to prepare for environmental turbulence. It is particularly applicable in situations of rapid sustainability changes, where procurement must adapt to new technology, legislation, and customer needs. The fact that there are few studies available, however,

means that they are not utilized to their full potential. The cooperation between buyers and suppliers has been described in terms of Social Exchange Theory [46], which emphasizes the importance of trust, reciprocity, and long-term relationships. In green procurement, relational governance is often vital in developing suppliers and eco-innovation. Nevertheless, this is only peripheral, even though procurement is inherently relational in nature.

5.3. Rarely Used and Emerging Theories

The review also found that several theories emerged sporadically. Agency Theory has been employed to study principal–agent relations, especially in procurement in the public sector, where conflicting incentives can counteract sustainability goals. The Practice-Based View and Systems Theory offer complementary perspectives on organizational routines and interdependencies, but have been applied sparingly. The Circular Economy Theory has only emerged in one study, despite having immediate applications to procurement and transitions to sustainability. Similarly, Institutional Logics and Sociotechnical Systems Theory offer promising avenues to capture complexity but remain largely unexplored.

The restricted application of these views means there is potential waiting to be unlocked. For example, Circular Economy Theory has the potential to shed light on how procurement facilitates closed-loop systems, and Sociotechnical views could identify how digital technologies reframe procurement practices. Behavioral theories, although uncommon, may shed light on the decision biases of procurement managers. Theoretical diversification is thus key to preventing intellectual lock-in.

5.4. Single vs. Multiple Theories

Another significant finding is the prevalence of single-theory research (65%), compared to fewer studies bringing multiple angles together (35%). While individual theories provide unambiguous and rich insights, they often overlook the complex nature of green procurement. For instance, RBV accounts for competitive advantage but not legitimacy pressures, whereas Institutional Theory accounts for legitimacy but not capabilities. Integrated perspectives, such as the combination of RBV and Institutional Theory, offer more insightful views by drawing connections between internal resources and external pressures [47, 48]. These approaches, nonetheless, are underdeveloped.

The suggestion is that subsequent research needs to make more use of integrative frameworks. For example, the integration of Stakeholder Theory and Behavioral Theories could account not only for who the stakeholders are but also how managers react cognitively. Likewise, the integration of Circular Economy Theory and Dynamic Capabilities could shed light on how companies evolve procurement to closed-loop supply chains. The integration of theories is therefore a promising area for developing the field.

5.5. Comparison with Other Domains

The results mirror trends in similar areas. In operations management, AlNuaimi, et al. [49] concluded that RBV, Institutional Theory, and Contingency Theory prevail with little application of integrative theories. Likewise, Aripin, et al. [6] highlighted a focus on a select few theories in research on lean manufacturing. This implies that theoretical narrowness is not limited to green procurement but mirrors general trends in operations research. Nonetheless, the relative newness of green procurement theory highlights the necessity for catch-up.

5.6. Implications for Theory and Practice

For theory, the review emphasizes diversification and integration. Researchers should move beyond the prevailing triumvirate of RBV, Institutional Theory, and Stakeholder Theory to lesser-used alternatives such as Circular Economy Theory, Sociotechnical Systems Theory, and Institutional Logics. Integrative frameworks should be given prominence in order to embody the multi-level nature of procurement choice.

To train, the findings suggest that the bulk of the current theoretical knowledge is devoted to resource capacities and external pressures. This implies that those employing green procurement should not only invest in capabilities but also regard the contribution of legitimacy as well as stakeholder involvement. Social Exchange Theory, a relational theory, also highlights the benefits of longer supply chain relationships. Institutional Theory knowledge, on the other hand, can be applied by policymakers to develop regulation systems that have the effect of coercing and encouraging at the same time.

In general, the discussion reveals the existence of the RBV, Institutional Theory, and Stakeholder Theory in the studies of green procurement, but the little use of the other views is mentioned. Research based on a single theory still prevails, but combined methods are more insightful. Theoretical narrowness is also widespread in comparison with adjacent fields, but diversification and integration are needed to drive the agenda. For researchers, this requires the expansion of theoretical instruments and the pursuit of interdisciplinary approaches. To practitioners, it implies understanding the relationship between capabilities, legitimacy, and stakeholder expectations.

6. Conclusion and Suggestions for Future Studies

This research project aimed to conduct a systematic literature review (SLR) of the theoretical premises that govern the study of green procurement. Given that much of the existing literature on sustainable procurement is descriptive and disjointed, this review aimed to identify the most frequently used theories, their operationalization, and the areas where gaps exist. Using the PRISMA 2020 principles and synthesizing the results of 52 peer-reviewed articles, this research presents a summary of the intellectual basis of green procurement research.

The results show that the field has experienced tremendous advancements in the application of theory over the last 20 years, especially since 2015. The three prevailing theories in the market are the Resource-Based View (RBV)/Natural RBV, Institutional Theory, and Stakeholder Theory. Combined, these views account for over 80 percent of theory-directed research, indicating that the discipline has reached a consensus on a small set of explanatory paradigms. RBV/NRBV emphasizes internal capabilities and environmental processes as strategic resources, Institutional Theory addresses external legitimacy demands, and Stakeholder Theory focuses on discovering procurement within a network of stakeholder expectations. Such viewpoints are useful because they describe the internal and external processes of procurement decisions and are explanatory, clear, and relevant in the real world.

Nonetheless, the reliance on a single restricted set of theories also depicts dependence on intellectual paths. The review validated that middle-ground views, such as Contingency Theory, Transaction Cost Economics, Dynamic Capabilities, and Social Exchange Theory, are periodically re-emerging but under-researched. Meanwhile, promising theories such as the Circular Economy Theory, Sociotechnical Systems Theory, Behavioral Theories, and Institutional Logics are rarely utilized in studies, yet they align well with the research. The gap highlights the need for diversification of theoretical lenses to prevent stagnation and to capture the complexity of the transition process towards sustainability.

The other apparent discovery is the application of single or multiple theories. Most of the research employed a single theoretical model, which often provided partial explanations. Fewer, yet increasing, percentages were using integrative approaches, including the combination of RBV and Institutional Theory or Stakeholder Theory and Contingency Theory. Integrative frameworks prove to be the most promising, as they enable the researcher to consider the interactions between resources, legitimacy pressures, and stakeholder dynamics. However, they are still a minority. It implies that, although the development in green procurement theory is on the right track, a greater focus on integration is required to meet the multi-level character of procurement practice.

It makes a two-fold contribution, both theoretically and practically. Theoretically, it unites the disjointed literature, explaining which perspectives prevail most, where they are weakest, and how theories have evolved over the years. This synthesis is based on past evaluations in other related fields, including operations management and lean production, although it employs the same lens for green

procurement. It describes how the field is similar to other disciplines in that it relies on the RBV and the Institutional Theory, but also has its own set of challenges because of its focus on sustainability. This review offers practical insights for policymakers and managers. It indicates that procurement strategies are influenced by both internal capability and external legitimacy, as well as stakeholder demand. To practitioners, therefore, it is an indicator that effective approaches to green procurement involve not only effective stakeholder management but also the development of capabilities. To policymakers, it implies that institutional arrangements should be developed that balance the coercive rules on the one hand and the normative and mimetic emulation on the other.

Although the review is comprehensive, it has its limitations. By focusing on English-language journals, some research conducted in other languages may have been overlooked, especially given the global nature of procurement. The use of Scopus and Web of Science, although exhaustive, may have overlooked other potentially relevant work indexed elsewhere. Additionally, the working definition of theory needed to be identified so specifically, which may have excluded studies that utilize theoretical constructs but do not explicitly identify them as such. These restrictions do not affect the validity of the results but provide directions for improving future reviews.

These findings suggest several potential research directions. First, researchers need to incorporate theoretical frameworks into green procurement research. Of particular interest are the theories of Circular Economy, Institutional Logics, and sociotechnical systems, as they align with the current sustainability agendas, which focus on systematic and technological change. Second, theory integration, where opposing frameworks are combined to express the dynamics of procurement at multiple levels, should be incorporated into future research. An example of this is combining RBV and Circular Economy Theory to illuminate the role of internal capabilities in facilitating closed-loop systems, and combining Stakeholder Theory with Behavioral Theories to gain insight into decision-making biases and making decisions with stakeholders.

Third, the research should address the geographical disparity in the literature. Most empirical studies have been conducted in Asia and Europe, with limited coverage in Africa, Latin America, and other emerging markets. By covering a larger geographical area, generalizability would be enhanced, as well as information about the impact of contextual factors on the application of the theory. Fourth, longitudinal and mixed-method designs should be employed in the future to track the evolution of procurement practices and theoretical applications over time. Current studies are typified by cross-sectional surveys, which limit the capacity to quantify dynamic change. Thirdly, scholars should strive to develop innovative frameworks for green procurement, rather than borrowing from neighboring disciplines. This would propel the field to a level of being a derivative of a generative contributor in the sciences of management.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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