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## **EXPLORING THE RELATIONSHIP AMONGST CORPORATE GOVERNANCE MECHANISMS, HUMAN GOVERNANCE CHARACTERISTICS, COMPANY RESOURCES, RISK DISCLOSURE, AND SSCM DISCLOSURE: A SYSTEMATIC LITERATURE REVIEW APPROACH**

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### ABSTRACT

Through Systematic Literature Review (SLR), this paper examines the relationship between corporate governance mechanisms, human governance characteristics, company resources, risk disclosure, and sustainable supply chain management (SSCM) disclosure. The author used ROSES to guide the review technique. Scopus, Web of Science, and Google Scholar were the main databases, and theme analysis was used. Data was synthesized from 43 papers using thematic analysis. The main themes were corporate governance mechanisms, human governance characteristics, company resources, risk disclosure, and SSCM. Thus, the analysis found 15 sub-themes. As part of corporate governance, an audit and sustainability committee, board gender diversity, and board independence greatly might improved sustainable supply chain management. The board's personality, qualities, and human governance experience affect SSCM disclosure. Companies' risk management committees and board meeting frequency might potentially affect SSCM disclosure. In addition to risk disclosure, the company's SSCM disclosure emphasizes long-term sustainability, concentrating on SDG targets 11 and 12. Corporate governance, human governance, resources, and risk disclosure help the organization succeed. This essential study covers the board's features and underlines the

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need for corporate management to be aware of the company's sustainability activities.

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## **1. Introduction**

Sustainable Supply Chain Management (SSCM) disclosure is the act of transparently providing details concerning a company's practices in managing sustainability within its supply chain. This entails providing comprehensive information about the practices and policies concerning environmental effects, social responsibility, and governance. The aspects of SSCM can be categorized as environmental impact, social responsibility, governance, performance measurements, risk management, and stakeholder engagement (Ngo et al., 2024; Feng et al., 2024). Providing stakeholders, such as investors, consumers, and regulators, with a transparent and truthful account of a company's sustainability practices and performance is the objective of the Sustainable Supply Chain Management (SSCM) disclosure framework. The company's operations and supply chain can both benefit from this transparency, which helps to develop confidence, encourages accountability, and has the potential to drive improvements in both areas.

The advantages the organization will obtain due to SSCM are far more extensive than they appear. According to Usman, Jihadi, and Ambarwati's research from 2020, decision-makers can utilize the annual report (SSCM disclosure) as a tool to assist them in identifying problems that need to be addressed with the management of the supply chain. Management sustainability has far-reaching effects since it boosts product quality, competitiveness, accountability, trust, and public opinion of companies (Jaimes-Valdez and Jacobo-Hernandez, 2016).

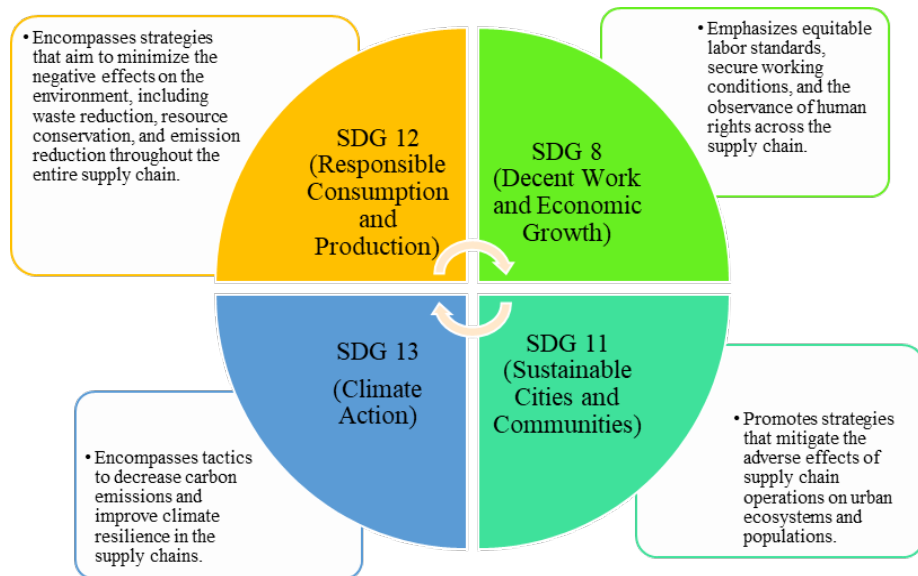
Huang, Borazon, and Liu's research from 2021 found that stakeholder pressure has a substantial and advantageous influence on corporate green resources and green supply chain management (SCM) practices. Additionally, green SCM practices have a notable and favourable effect on organizational performance, as highlighted by Shabbir and Kassim (2018). Businesses that employ sustainable methods currently possess a distinct advantage in competition and financial performance compared to those that do not. Consequently, firms have gained an understanding of the significance of sustainability and the methods to integrate it into their supply chain design (Shekarian, Ijadi, and Zare, 2022). Several researchers have recognized individuals who exemplify the importance of technical innovation in sustainable supply chain management (SSCM), which is a fundamental aspect of a circular economy, considering the critical environmental circumstances (Ciliberto et al. 2021; Haleem et al. 2021; Shayganmehr et al. 2021). In addition, Famiyeh et al. (2018) conducted a study in Ghana and discovered that implementing green SCM approaches, such as green buying (GP) and environmental management systems (EMSs), can enhance a company's operational competitive performance in terms of cost, quality, and flexibility.

If the company implements sustainable practices across its whole supply chain, it can be inferred that it places significant importance on reducing its carbon impact. Any business utilizing low-carbon supply chains must openly and transparently disclose its carbon

emissions. Maak and Pless (2021) argue that demonstrating trustworthiness and ethical behavior is an effective way to gain the confidence of stakeholders. Ensuring accurate and helpful information requires effective and transparent communication between the organization and stakeholders. This information is highly valuable for the management and resources to effectively meet the demands of the board of directors. The board will ensure that managers are provided with pertinent information on low-carbon supply chain, enabling them to implement the requisite measures to meet stakeholder expectations (Mohter and Fernando, 2020). Böttcher and Müller (2015) found that the adoption of a low-carbon supply chain has provided enterprises with additional capabilities that have a direct impact on their financial performance. Integrating low-carbon technologies in processes and products can help organizations identify and capitalize on emerging market prospects.

Technological improvements have greatly diminished their impact on the global ecological system by prioritizing sustainable supply chain operations, promoting zero waste, and fostering a sustainable environment (Aray, et al., 2020). The SSCM functioned as an intermediary between customer collaboration, environmentally conscious procurement, investment recovery, and environmental performance (Kurniawan, et al., 2020). Nevertheless, in the event that the company fails to disclose supply chain sustainability in the annual report, stakeholders will be deprived of an authentic depiction of the company's sustainability practices at every stage of the supply chain. Consequently, stakeholders face challenges in making judgments regarding crucial matters that impact the company's future events.

SSCM disclosure is a method that should be used to achieve the Sustainable Development Goals (SDGs) by 2030. The connection between SSCM and the SDGs is strong, as both have the common goal of advancing long-term environmental stewardship, social fairness, and economic success. The areas of focus include environmental sustainability as outlined in SDG 12 (Responsible Consumption and Production), social responsibility as outlined in SDG 8 (Decent Work and Economic Growth), climate action as outlined in SDG 13 (Climate Action), and sustainable cities and communities as outlined in SDG 11 (Sustainable Cities and Communities). Essentially, Supply Chain Sustainability Management (SSCM) assists organizations in harmonizing their operations with the overarching goals of the Sustainable Development Goals (SDGs) by incorporating environmental, social, and governance factors into their supply chain procedures. Aligning with the Sustainable Development Goals (SDGs) not only assists in achieving them but also improves the company's sustainability performance and reputation.



*Figure 1. SSCM and SDGs*

Figure 1 depicts the correlation between Sustainable Supply Chain Management (SSCM) and Sustainable Development Goals (SDGs) in multiple ways. SDG number 12 advocates for the implementation of sustainable supply chain management (SSCM) in order to promote responsible consumption and production. This execution will result in the achievement of environmental sustainability. Encompasses strategies aimed at minimizing the negative effects on the environment, including waste reduction, resource conservation, and emission reduction along the entire supply chain. The objective of SDG 12 is to guarantee the establishment of sustainable consumption and production patterns. SSCM facilitates the achievement of this objective by advocating for the efficient use of resources and minimizing the environmental impact of products at every stage of their existence.

Furthermore, the achievement of SDG 8, which focuses on promoting decent work and economic growth, is strongly interconnected with the concept of Sustainable Supply Chain Management (SSCM). SDG 8 aims to foster inclusive and sustainable economic growth, employment, and decent work opportunities for everyone. It also emphasizes the importance of fair labor standards, safe working conditions, and the protection of human rights throughout the supply chain. SSCM ensures that supply chain activities adhere to labor rules and provide legal support for economic development. In addition to SDG 12 and SDG 8, SSCM is also associated with climate action, which falls under SDG 13. SDG13 encompasses measures aimed at mitigating carbon emissions and strengthening the ability of supply chains to withstand the effects of climate change. It emphasizes the need for immediate action to address climate change and its consequences. SSCM supports this objective by developing strategies that decrease the release of greenhouse gases and adjust to hazards associated with climate change.

On top of that, SSCM is intricately linked to the concept of sustainable cities and communities, which is encompassed under SDG 11. Through the implementation of

Sustainable Supply Chain Management (SSCM), the organization promotes methods aimed at mitigating the adverse effects of supply chain activities on urban ecosystems and communities. Furthermore, SDG 11 specifically targets the goal of creating cities that are inclusive, safe, resilient, and sustainable. SSCM achieves this by reducing pollution and waste, as well as promoting and bolstering local economies and communities.

Researchers have investigated the correlation between corporate governance mechanisms and various forms of corporate disclosure, including integrated reporting disclosure, environmental reporting disclosure, corporate social responsibility disclosure, environmental, social, and governance disclosure as well as sustainability reporting disclosure. However, there is a lack of research on the relationship between corporate governance mechanisms and SSCM disclosure. Corporate governance mechanisms encompass the objectives, composition, and duties of a board of directors while considering the organizational structure of firms (Naciti, 2019). The board of directors plays a vital role in corporate governance since they are responsible for supervising and protecting the company's interests against any valid concerns raised by shareholders. To prevent this inappropriate stakeholder involvement, it is important to closely monitor decision-making processes and assess their effectiveness through corporate governance mechanisms.

This brings this study to the first research question:

RQ1: What are the most effective corporate governance mechanisms that can influence SSCM disclosure?

In addition to corporate governance mechanisms, human governance characteristics refer to the qualities, behaviours, and practices of the personnel responsible for managing and overseeing a business. These attributes can have a substantial impact on the incorporation of sustainability into supply chain operations and the level of transparency in communicating these operations.

The company's decision-makers, specifically the board of directors, play a crucial role in determining how sustainability will be integrated into the supply chain activities. The utilization of algorithms by the board of directors in the decision-making process greatly contributes to the sustained expansion of companies (Barcellos, 2021). Board qualities are a factor in influencing the connection between supply chain operational effectiveness and sustainable supply chain management (SSCM) in businesses. Baliga, Raut, and Kamble (2020) discovered that lean management, supply management, and other variables significantly influence the environmental and social practices of supply management. These habits have a good correlation with the performance of SSCM. The director's demeanor and disposition exert a substantial influence on the company's execution of SSCM. Prior studies have demonstrated that the personal attributes of the director have a significant impact on and mold every stage of the supply chain to enhance its sustainability (Sabat and Krishnamoorthy, 2020; Carpio et al., 2019).

This brings this study to the second research question:

RQ2: What are the most effective human governance characteristics that can influence SSCM disclosure?

As part of this investigation, in addition to the mechanisms of corporate governance and the characteristics of human governance, the resources of the company are also being taken

into consideration as a factor that might have an effect on the disclosure of shareholder value. The assets, capabilities, and procedures that a company takes advantage of in order to generate and provide value to its customers are referred to as the company's resources. The resource-based perspective theory advocates that organizations should possess resources that are valuable, unique, difficult to replicate, and cannot be easily substituted in order to effectively compete with other companies in the industry. Company resources encompass tangible assets, intangible assets (Sutjipto, et al., 2019; González-Prida, et al., 2022), and organizational capability (Munizu and Pono, 2019; Sánchez-Medina, 2020; Sari and Sari, 2022). These resources can be categorized into a number of different categories, some of which will be discussed in this study.

This brings this study to the third research question:

RQ3: How do company resources influence SSCM disclosure?

The term "corporate risk disclosure" refers to the process by which businesses communicate transparently to the public the dangers and uncertainties that they confront in their operations, financial situation, and strategic goals. This information is often included in a variety of corporate reports and filings, including annual reports, financial statements, and regulatory filings, among others. The purpose of corporate risk disclosure is to offer stakeholders, including investors, analysts, regulators, and the general public, with information regarding the potential risks that could have an effect on the performance and value of a company.

Nevertheless, risk disclosure encounters certain obstacles, namely complexity, uncertainty, and confidentiality.

Complexity: Risk disclosure can be intricate and may encompass intricate and technical information that is arduous for some stakeholders to comprehend.

Uncertainty: Risks frequently encompass an element of uncertainty, which poses challenges in accurately predicting and quantifying their consequences.

Striking a balance between transparency and confidentiality: essential for companies, as they must ensure the disclosure of information while safeguarding sensitive or proprietary data.

Unquestionably, the decisions made by top management are the ones that decide the factors that govern the disclosure of corporate risks. According to Alkurdi et al. (2019), corporate risk disclosure is a type of information that provides a description of the primary risks that a company confronts and the economic impact that these risks are anticipated to have on the company's future achievements and prospects.

This brings this study to the fourth research question:

RQ4: In what ways are SSCM disclosure and risk disclosure related?

This study holds immense significance for businesses in multiple ways. Several studies have included corporate governance processes as a variable to examine the extent of sustainable supply chain management (SSCM) (Chatchawanchanchanakij, Arpornpisal, and Jernsittiparsert, 2019; Aray et al., 2020; Istianingsih, 2020; Senjaya, 2020). Some studies have



used human governance characteristics as a variable to analyze corporate disclosure (Said et al., 2018; So et al., 2021; Haron et al., 2022). However, there is minimal research on the connection between company resources and corporate disclosure, specifically with SSCM disclosure.

This study provides insights into how corporate governance mechanisms, human governance characteristics, company resources, and risk disclosure can influence a company's long-term goal of creating sustainable value. It also emphasizes the importance of considering future economic benefits, social welfare, and environmental sustainability. This study is unique in that it combines all four areas that have been separately analyzed in previous studies: corporate governance mechanisms, human governance characteristics, company resources, risk disclosure, and SSCM. While there have been numerous and distinct systematic analyses of each of these topics individually (Khatib and Nour, 2021; Gruchmann, Topp, and Seeler, 2022; El Baz, et al, 2021; Queiroz, Telles, and Bonilla, 2020), none of them have integrated all four areas as this study does.

This article aims to investigate the correlation between corporate governance mechanisms, human governance characteristics, company resources, risk disclosure, and SSCM disclosure through the utilization of the Systematic Literature Review (SLR) methodology.

In the current demanding business market conditions, organizations require four essential criteria to not only generate profits but also ensure sustainability and market survival. Investors are convinced to entrust managers with the task of overseeing the enterprises in which they have invested, with the aim of generating future earnings and increasing value. Investors can evaluate the company's success by analyzing the annual report, which provides a comprehensive overview of all the company's activities. Consequently, this study suggests that organizations should comprehend the reasons behind their need for these procedures, as it can have an impact on the companies' practices in SSCM. Moreover, this study could enhance the board's awareness of the importance of SSCM in their annual reports, enabling investors to assess and consequently motivating capital investors to invest. The SLR article will commence with a methodology section that elucidates the review protocol, the development of research questions, the outcomes of the search strings, the analysis of all factors, and the study's conclusions.

## **2. Methodology**

### **2.1 The Review Protocol**

This study followed the Reporting Standards for Systematic Evidence Synthesis review methodology. ROSES is meant for systematic reviews; therefore, its articles are better than PRISMA (Haddaway, et al. 2018). Environmental study heavily uses ROSES. ROSES varies from PRISMA in that it requires an expert to evaluate selected publications during the eligibility stage. Unlike PRISMA, ROSES better reflects variation among author and reviewer situations (Haddaway, et al., 2018). A limited amount of synthesis is performed as part of the ROSES review approach, which also involves searching, screening, data abstraction, and evaluation of the quality of the article through the use of the Appraisal tool for Cross-Sectional Studies (AXIS tool). Reporting and methodological guidance—'gold standard' approaches—support bigger quality reviews and quality protocol generation in ROSES. ROSES can also shorten the period between paper submission and publication. Many researchers have employed ROSES (Nakagawa, et al., 2023; Verstappen, et al., 2021;

Gusenbauer, and Haddaway, 2020). The author will defend the study's research question and outline systematic search procedures (identification, screening, and eligibility). The author will conclude by clarifying data abstraction for the study's review and analysis.

## 2.2 Formulation of the research question

In reaching RQ1, RQ2, RQ3, and RQ4, the study used PICO as a base in reaching the research question. PICO help the author determine the three concepts that contained the Population or Problem, Interest, and Context. PICO has been used by Adenan and Said (2021); Shaffril, Samah, and Kamarudin (2021); Zaki and Ismail (2021) in their study. Therefore, the formulation of the research question in this study was:

"Why (Problem) companies change (Interest) to SSCM (Context)?".

RQ1: What (Problem) is the most effective corporate governance mechanisms (Interest) that can influence SSCM disclosure (Context)?

RQ2: What (Problem) is the most effective human governance characteristics (Interest) that can influence SSCM disclosure (Context)?

RQ3: How (Problem) do company resources (Interest) influence SSCM disclosure (Context)?

RQ4: In what ways (Problem) are SSCM disclosure and risk disclosure (Interest) related (Context)?

## 2.3 Systematic Searching Strategies

Systematic searching involves identification, screening, and eligibility (Figure 2).

### 2.3.1 Identification

The author needed to improve the keywords during the identification stage by considering any related terms, synonyms, and variations for each essential keyword, such as corporate governance mechanisms, human governance characteristics, company resources, risk disclosure, and SSCM. The goal of the keyword enrichment was to select the best article from the chosen databases, namely Scopus, Web of Science, and Google Scholar. The reason this study chose Scopus and Web of Science is that Scopus encompasses over 42,000 peer-reviewed publications worldwide, whilst Web of Science encompasses over 32,000 journals from 80 different nations.

Both platforms include extensive citation databases that enable researchers to monitor the influence of their work by tracking citation counts and h-index. Additionally, Scopus offers sophisticated tools for visualising, analysing, and tracking literature, which enhances the effectiveness and efficiency of research workflows. Meanwhile for Web of Science, it facilitates the identification of research methodologies and recurring topics within a specific academic discipline. Additionally, it aids in identifying the ongoing research in a specific field and the level of focus on different subjects. Furthermore, Google Scholar offers universal accessibility to anybody with internet connectivity and encompasses a diverse array of intellectual resources, such as books, articles, theses, dissertations, conference papers, and other related materials. In addition, it includes sources that are not readily accessible in

alternative databases, such as preprints, grey literature, and open access journals. According to Bergman (2012) for the most complete citation count, researchers must use all three resources including Scopus, Web of Science, and Google Scholar.

According to Okoli and Schabram (2010), the research question was based on the development of keywords. These keywords were derived from prior studies in Scopus, Web of Science, and Google Scholar, as well as from recommendations by experts, academicians, and online thesauruses. The author utilized Boolean Operators (OR, AND), phrase searching, truncation, and a wild card feature from Scopus, Web of Science, and Google Scholar (refer to Table 1) to aid in determining keyword enrichment and constructing a comprehensive search string. The search terms "corporate governance mechanisms", "human governance characteristics", "company resources", "risk disclosure", and "SSCM" were used for this SLR.

*Table 1*  
*The Search String*

<b>Database</b>	<b>Search String</b>
<b>Scopus</b>	TITLE-ABS-KEY ( ( "sustainable supply chain management" OR "ssc" OR "SCM" ) AND ( "corporate governance" OR "corporate governance mechanisms" OR "board size" OR "board independen*" OR "audit committee" OR "foreign ownership" OR "board gender diversit*" ) OR ( "human governance" OR "human governance characteristics" OR "board tenure" OR "board age" OR "board academic qualification*" OR "board ethnicity" OR "malay board" OR "Chinese board" ) OR ( "company resource*" OR "board remuneration" OR "award" OR "risk management committee*" OR "board meeting frequenc*" ) OR ( "corporate disclosure" OR "disclosure" ) OR ( "corporate risk disclosure" OR "CRD" OR "corporate risk*" ) )
<b>Web of Science</b>	AB = ( "sustainable supply chain management" OR "ssc" OR "SCM" ) AND ( "corporate governance" OR "corporate governance mechanisms" OR "board size" OR "board independen*" OR "audit committee" OR "foreign ownership" OR "board gender diversit*" ) OR ( "human governance" OR "human governance characteristics" OR "board tenure" OR "board age" OR "board academic qualification*" OR "board ethnicity" OR "malay board" OR "Chinese board" ) OR ( "company resource*" OR "board remuneration" OR "award" OR "risk management committee*" OR "board meeting frequenc*" ) OR ( "corporate disclosure" OR "disclosure" ) OR ( "corporate risk disclosure" OR "CRD" OR "corporate risk*" )
<b>Google Scholar</b>	"sustainable supply chain management", "corporate governance mechanisms", "human governance characteristics", "company resources", "risk disclosure"

## 2.3.2 Screening

The author reviewed a total of 869 articles. Scopus and Web of Science were used as the main databases to categorize the accessible functions. Nevertheless, the author had to do supplementary efforts because to the overly general title identification provided by Google Scholar. The screening method was conducted according to the research question, encompassing the time frame from 2018 to 2024. Due to the relevance and timeliness of the data, a period of 7 years was selected. This aligns with the recommendation put forth by Okoli and Schabram (2010), who argued that scholars should determine the specific time period they will analyze. The selection criteria encompassed solely publications containing empirical data and those that were published in a journal. Moreover, only papers written in English and relevant to the current study were selected. A total of 652 articles were eliminated throughout the screening procedure due to their lack of relevance to the study issue. Furthermore, the author eliminated five redundant publications, while an additional 118 articles were discarded due to their lack of relevance to the study's objectives. Finally, a total of 94 papers progressed to the eligibility stage.

Table 2  
The Inclusion and Exclusion Elements

Elements	Inclusion	Exclusion
<b>Timeline</b>	2018 - 2024	<2018
<b>Document Type</b>	Article journals	Article reviews, chapters in books, book series, books, conference proceedings
<b>Language</b>	English	Non - English
<b>Topic</b>	SSCM, corporate governance mechanisms, human governance characteristics, company resources, risk disclosure	Besides SSCM, corporate governance mechanisms, human governance characteristics, company resources, risk disclosure

### 2.3.3 Eligibility

During the eligibility stage, the author carefully reviewed all of the abstracts and made the decision to exclude 51 papers out of 94 papers that did not address the specific topics of corporate governance mechanisms, human governance characteristics, company resources, risk disclosure, and SSCM. Consequently, the authors selected 43 publications to undergo quality evaluation by experts.

### 2.3.4 Quality appraisal

During the quality appraisal stage, the suitability of the selected articles was evaluated by considering the objectives, variables, and methods used, including statistical analysis, results, and other relevant elements (Figure 2). Among the 43 publications, the expert's quality rating, which relied on the AXIS tool, ranked 39 as high quality and 4 as moderate level.

## 2.3.5 Data Abstraction and Analysis

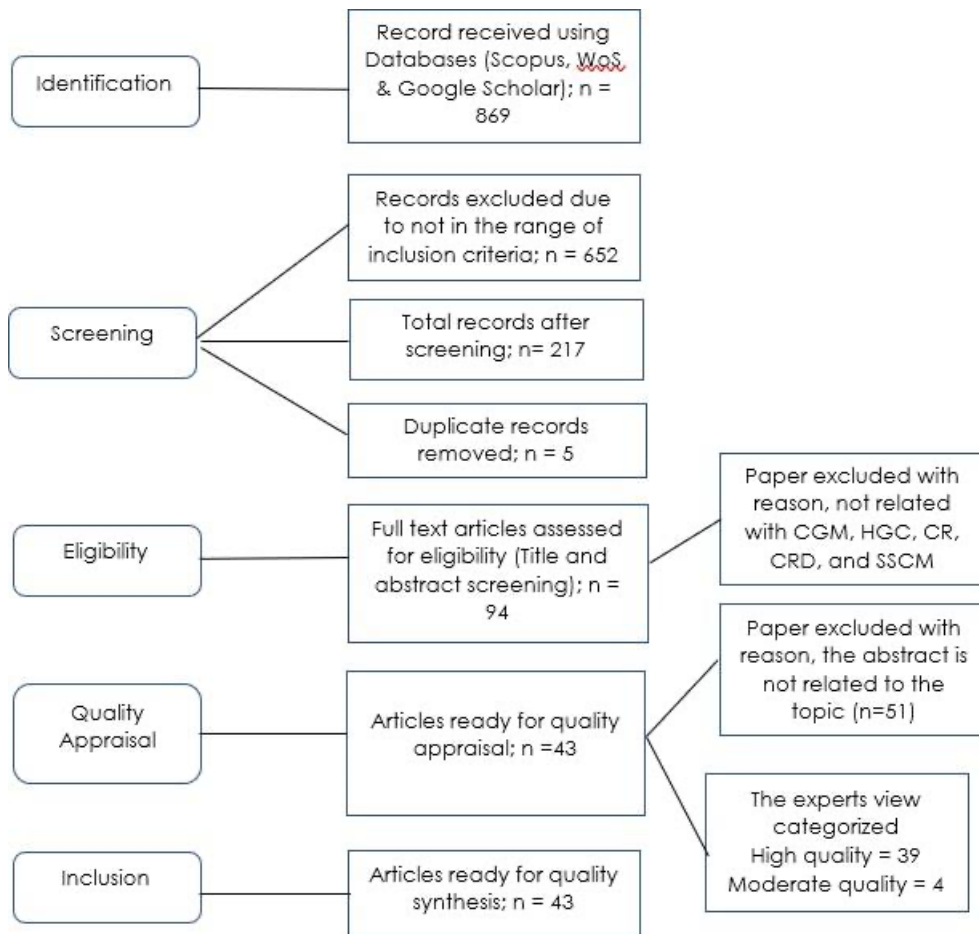
The author conducted a comprehensive analysis of the abstracts, conclusions, and discussions of 43 papers. The conclusion of each article was recorded on a single sheet to determine the main subject and then guide the identification of sub-themes. The analysis identified four key themes and fifth teen sub-themes (Table 3) based on the frequent use of specific terms by the writers of the publications. A theme analysis is the most effective approach for synthesizing a mixed research design (Braun and Clarke, 2024).

Table 3  
Main Themes and Subthemes

	Authors	Years	CGM					HGC					CR					De
			BS	BI	BG	AC	FO	BT	BA	BAQ	BE		BR	Aw	BMF	RMC	SSCM	
1	Velte	2024	✓	✓	✓									✓			✓	
2	Cai et al	2023	✓				✓						✓					
3	Moussa et al.	2023					✓										✓	
4	Kabara, et al	2023				✓						✓					✓	
5	Haque and Ntim,	2022						✓	✓								✓	
6	Shekarian, Ijadi, and Zare	2022															✓	
7	González-Prida, et al	2022											✓		✓			
8	Haron et al	2022										✓			✓		✓	
9	Ijahjadi, et al.	2021	✓									✓					✓	
10	Huang, Borazon, and Liu	2021	✓														✓	
11	Maak and Pless	2021										✓					✓	
12	Barcellos	2021	✓									✓			✓		✓	
13	Khatib and Nour	2021	✓				✓										✓	✓
14	Khan and Singh	2021										✓					✓	
15	Thambugala and Rathwatta	2021															✓	
16	Mohter and Fernando	2020															✓	
17	Jen, et al.	2020			✓	✓		✓	✓								✓	
18	Benjamin, Mansi, and Pandey	2020			✓	✓											✓	
19	Sebastianelli and Tamimi	2020															✓	
20	Usman, Jihadi, and Ambarwati	2020															✓	
21	Aray, et al.	2020															✓	
22	Baliga, Raut, and Kamble	2020															✓	
23	Sabat and Krishnamoorthy	2020										✓					✓	
24	Istianingsih	2020															✓	
25	Doan	2020							✓								✓	
26	Jaiswal and Dyaram	2020			✓		✓										✓	
27	Pechancová, et al.	2019											✓		✓	✓		
28	Ismail and Latiff	2019																
29	Naciti	2019																
30	Carpio-Aguilar, et al.	2019	✓														✓	
31	Sutjipto, et al.	2018									✓							
32	Alkurdi et al	2019																✓

3	Chatchawanchanchanakij, et al.	2019			✓		✓
3	Pinegar and Smith	2019			✓		✓
4	Gandhi and Vasudevan	2019		✓	✓		✓
6	Khan et al.	2019					✓
7	Suryanto, Haseeb, and Hartani	2018					✓
8	Bueno et al.	2018	✓		✓		
9	Shabbir and Kassim	2018	✓	✓			✓
4	Famiyeh et al.	2018					✓
4	Said et al	2018					✓
4	Kumar and Paraskevas	2018					
4	Chantachaimongkol and Chen	2018					

Note: CGM – Corporate Governance Mechanisms; HGC – Human Governance Characteristics; CR – Corporate Risk; Dc - Disclosure; BS – Board Size; BI – Board Independent; BG – Board Gender; AC – Audit Committee; FO – Foreign Ownership Structure; BT – Board Tenure; BA – Board Age; BAQ – Board Academic Qualification; BE – Board Ethnicity; BR – Board Remuneration; Aw – Award; BMF – Board Meeting Frequency; RMC – Risk Management Committee; SSCM – Sustainable Supply Chain Management; CRd – Corporate Risk Disclosure



*Figure 2. ROSES Flow Diagram*

### 3. Results

#### 3.1 General findings and background of the articles

For the purpose of analyzing the selected articles, thematic analysis was utilized. There are five primary themes that are covered in this research: corporate governance mechanisms, human governance characteristics, company resources, risk disclosure, and supply chain management. Within the 43 publications, there were a total of 30 articles that focused on the SSCM practices, 13 publications that supported corporate governance mechanisms, 13 articles that addressed human governance characteristics, 5 articles that concerned the concerns of company resources, and three papers that supported corporate risk disclosure. In the following section, this study will go over the discussions that pertain to the primary themes as well as the subthemes.

## **4. Discussions**

### **4.1 Sustainable Supply Chain Management Disclosure**

In order to attain SSCM, it is imperative that all parties involved possess a comprehensive understanding of what Supply Chain Management (SCM) entails (Velte, 2024). What is the precise meaning of SCM? Supply chain management focuses only on optimizing the efficiency and responsiveness of a system, starting from the acquisition of raw materials, continuing through the production process, and concluding with the delivery of commodities to consumers (Giunipero, Hooker, and Denslow, 2012). Supplier links, intermediate and distributor ties, and customer relationships are the three components that constitute SCM (Doan, 2020). Companies that participate in several SCM activities should give priority to ensuring the sustainability of these three categories. In order to mitigate environmental degradation and minimize risks to the local people, it is crucial to implement waste management practices that involve the cautious treatment of surplus chemicals, plastics, and fuel. However, as stated by Pinegar and Smith (2019), a successful waste management system promotes the practices of remembering, reusing, and properly disposing of end-of-life (EOL) products in order to minimize their negative effects on the global ecological system. Regrettably, the topic of SSCM is currently in its nascent phase due to the limited adoption by industrial enterprises in developing economies (Khan and Singh, 2021; Gandhi and Vasudevan, 2019).

SSCM approaches are thought to give priority to sustainability and are motivated by the United Nations' objective of achieving the Sustainable Development Goals by 2030. One benefit is that supply chain managers can enhance the competitive advantage of organizations in the market by effectively communicating sustainable supply chain practices to consumers and other stakeholders through SSCM disclosure. The disclosure may be found in the company's annual reports or on its website. Utilizing Information and Communications Technology (ICT) allows businesses to enhance communication and coordination of value-adding activities with their partners and within their own operations. This is particularly important in supply chain management, as it involves multiple companies in delivering products to customers, both upstream and downstream, as well as various functional areas within a business (Kaminsky and Simchi-Levi, 2003).

Haque and Ntim (2022) have found that there is a substantial relationship between corporate sustainability strategies and corporate carbon performance, particularly for companies operating in polluting industries. Moreover, there exists a positive association between a company's sustainability initiatives and its carbon performance. These findings indicate companies should actively take measures to confront corporate sustainability activities, including implementing emission reduction programs, making environmental breakthroughs, and minimizing waste, in order to prevent climate risk. These endeavors concurrently decrease greenhouse gas (GHG) emissions and improve carbon efficiency (Haque and Ntim, 2022). Companies publicly reveal the impact of their supply chain operations on the environment. This encompasses information pertaining to carbon emissions, energy utilization, waste administration, and resource consumption. For instance, an organization may disclose the proportion of its suppliers that utilize sustainable energy sources or the measures it implements to diminish its overall carbon emissions.



Therefore, it is crucial to identify the appropriate individuals or authorities who are involved in these sustainability activities. Comprehensive corporate governance mechanisms are necessary, including a board of directors who are responsible for achieving sustainability goals in the company. Their attributes play a pivotal role as the driving force behind the company's sustainability.

The stakeholder theory posits that the active participation of stakeholders is crucial in determining the success or failure of an organization. Conversely, the agency theory focuses solely on shareholders and management, neglecting the broader range of stakeholders. The financial implications of the supply chain are not solely the responsibility of the shareholders; other stakeholders are also impacted by decisions made in supply chain management. Jen and colleagues (2020) found that contracts based on trust and risk-sharing can promote cooperative learning among all stakeholders in the supply chain, leading to improved overall supply chain performance, including the disclosure of SSCM.

Here are some thoughts that organizations can utilize for disclosing their SSCM practices:

- a) **Social Responsibility:** The way in which communities and workers are treated within the supply chain is the subject of this characteristic. It is possible for businesses to provide information regarding labor practices, worker safety, compensation that is equitable, and human rights considerations. Audits of the facilities used by suppliers and measures to enhance working conditions are examples of what this can entail.
- b) **Governance:** This refers to the rules and procedures that a business puts in place to ensure that its employees behave ethically and in accordance with the regulations being followed. Disclosures could include information about the approach in which the business maintains being transparent, combats corruption, and consistently upholds ethical standards throughout its supplier chain.
- c) **Performance Metrics:** Metrics and statistics are frequently provided by businesses in order to illustrate their success in terms of sustainability. It is possible for this to incorporate progress made toward particular objectives, such as lowering emissions of greenhouse gases by a particular percentage or increasing the proportion of materials that are sourced in a sustainable manner.
- d) **Risk Management:** It is possible that disclosures will include information about the approach in which the company controls and eliminates risks linked with environmental and social issues in its supply chain. This may involve the development of strategies for dealing with disruptions in supply chains that are caused by natural disasters or changes in applicable labor regulations.
- e) **Stakeholder Engagement:** It is also possible for businesses to define the manner in which they interact with various stakeholders, such as customers, suppliers, and communities, in order to address issues regarding sustainability and acquire feedback.

The recommendations from Said et al. (2020) regarding the content of yearly reporting in the SSCM disclosure, specifically focusing on the three pillars of sustainability (social, economic, and environmental), can be adopted by companies to improve their reporting style in the field of SSCM.

#### 4.2 Corporate Governance Mechanisms and SSCM Disclosure

The presence of corporate governance and supply chain network governance has been found to have a favorable impact on sales and logistics competence. Furthermore, these governance mechanisms also influence customers' intention to continue partnerships (Avci and İyigün, 2017). Corporate governance is indeed present, as demonstrated by earlier research, and it plays a role in facilitating the company's progress. The board of directors is the primary and crucial vehicle in corporate governance. Their judgments have a significant impact on the feasibility of performing SSCM. Stakeholders, particularly managers, ought to make decisions based on carbon compliance in order to select the most effective management approaches for their carbon expenses. In order to reduce their carbon emissions, multiple global corporations are employing a variety of low-carbon supply chain practices throughout their supply chains (Mohter and Fernando, 2020).

The governing board of directors is tasked with supervising the behavior and decision-making of the executive directors and preventing any possible unethical behaviors that contradict the social and individual interests of specific parties, including scams, bribery, and embezzlement. The company's performance will be impacted by management methods that prioritize and maintain integrity. The mediating effect of corporate governance mechanisms on the link between green supply chain management (GSCM) and economic return (ER) is minimal. However, these mechanisms do mediate the relationship between socially responsible supply chain management (SRSCM) and ER, as stated by Sabat and Krishnamoorthy (2020). According to Herda, Taylor, and Winterbotham (2014), independent board members play a significant role in corporate governance by enhancing the supervision of a board's effectiveness. Herda et al. (2014) established a correlation between corporate governance procedures and the voluntary disclosure of sustainability reporting among the 500 largest U.S. firms. It was found that enhancing the ratio of autonomous board members will enhance the firm's sustainability reporting.

The disclosure of significant and sensitive company information is intricately connected to a range of corporate governance mechanisms. These techniques aid in guaranteeing that a company's actions adhere to ethical standards, are transparent, and are in line with its sustainability objectives. The following points outline the intersection between SSCM disclosure and important corporate governance mechanisms:

- a. Board of Directors - The board of directors has the responsibility of supervising the company's comprehensive strategy, which includes its sustainability activities. For SSCM disclosure to be effective, the board ought to uphold adequate governance of sustainability policies and actively encourage transparent reporting. The board plays a crucial role in guiding and supervising the organization's sustainability efforts. This includes approving sustainability policies and ensuring that sufficient resources are allocated to achieve sustainability goals. The effectiveness of the board in this regard is influenced by factors such as the size of the board, its independence, and the gender diversity of its members. Previous study indicates that having women on

the board of directors offers various advantages, particularly in terms of developing comprehensive strategies to improve firm performance. Benjamin, Mansi, and Pandey (2020) found a direct correlation between the gender makeup of a board and its level of independence, and the level of responsibility the board takes for maintaining a sustainable supply chain (SSCR). According to Benjamin, Mansi, and Pandey (2020), it has been demonstrated that female directors who work independently nonetheless maintain strong connections with SSCR. Integrating sustainability into all supply chain management (SCM) activities can be enhanced by increasing female representation in the workplace, as demonstrated by Kumar and Paraskevas (2018) and Sebastianelli and Tamimi (2020). According to Cai et al. (2023), organizations are more prone to experiencing SSCR (Supply Chain Supply Risk) when they are looking for external funding or when they have a more focused supply chain, which increases the need of decreasing information asymmetry. Effective corporate governance mitigates systemic corporate risk (SSCR) (Cai et al., 2023).

- b. **Audit Committee-** The audit committee is responsible for ensuring the accuracy and adherence to regulations in financial reporting (Amrin, 2019; Chantachaimongkol and Chen, 2018). The purpose of this committee is to evaluate the precision and comprehensiveness of sustainability reports for SSCM disclosure, and to verify their compliance with applicable standards and regulations. The audit committee has the responsibility for overseeing internal controls and external audits, which includes those specifically linked to sustainability disclosures. It guarantees the accuracy and absence of significant errors in the data provided in SSCM disclosures. In addition, it is essential to conduct continuous monitoring and evaluation of sustainability performance to ensure that the company's disclosures appropriately depict its accomplishments and difficulties. Governance structures encompass performance evaluation mechanisms that gauge the efficacy of sustainability practices and reporting. This encompasses the evaluation of performance in relation to the targets and objectives established by the board and committees.
- c. **Sustainability or ESG Committee -** Certain companies have specialized sustainability or ESG (Environmental, Social, and Governance) committees that specifically concentrate on sustainability matters and disclosures. These committees are responsible for formulating and overseeing sustainability plans and ensuring accurate reporting. Their primary objective will be to incorporate sustainability into business operations and strategy, ensuring that supply chain management practices are in line with corporate objectives and that disclosures accurately represent performance and progress. Usually, the board of directors establishes specialized committees to verify that the company's actions are in line with the stakeholders' expectations regarding corporate social responsibility (CSR) and sustainability matters (Garcia-Sanchez et al., 2019; Zampone, et al., 2024). The incorporation of a Sustainability Committee within this group of entities allows the company's board to promote sustainable practices and engage in continuous dialogue with stakeholders (Gallego-Alvarez and Pucheta-Martinez, 2020; Uyar et al., 2020).

- d. Disclosure Policies and Reporting Standards - Companies frequently adhere to established guidelines and frameworks, such as the Global Reporting Initiative (GRI) or the Sustainability Accounting Standards Board (SASB) standards, when reporting sustainability information. These norms and standards establish a structure for uniform and clear reporting. Governance procedures guarantee compliance with these criteria and ensure that disclosures satisfy regulatory and stakeholder expectations.

The disclosure of SSCM is intricately linked to corporate governance systems, as these mechanisms guarantee the efficient management, correct reporting, and alignment of sustainability practices with the company's strategic objectives. The board of directors, audit committee, and sustainability committees are essential governance bodies responsible for reviewing and verifying the company's sustainability activities and disclosures. This is a response to research question number 1.

#### 4.3 Human Governance Characteristics and SSCM Disclosure

An insufficient amount of research has been done in the past on the subject of human governance characteristics and SSCM disclosure. The study, on the other hand, appeared to support the connection between human governance characteristics and corporate reporting that was not related to SSCM disclosure. According to the findings of those investigations, the human governance index for Shariah-compliant businesses was positive and had a strong correlation with sustainability reporting (Haron et al., 2022). On the other hand, there was no relationship between human governance and management commentary disclosure (Said et al., 2018). Furthermore, there was a strong connection between human governance characteristics and sustainability reporting (So et al., 2021). According to Thambugala and Rathwatta (2021), directors who come from a wide range of educational and professional backgrounds, as well as those who have substantial experience in the sector, are also more concerned with corporate social responsibility (CSR) and advocate for the implementation of genuine CSR practices. It is anticipated that the decision-making process will be enhanced by the knowledge of the board of directors. According to Haron et al. (2022), to be able to improve the sustainability reporting of businesses that follow Islamic ideals, there needs to be a robust human governance system in place.

The process of making decisions is extremely important because it has an impact on the operations of the firm. Those who have invested money are particularly interested in finding out whether or not the money they have invested is being used profitably. They are seeking for characteristics of human governance, which is an essential component that could influence the manner in which companies produce value in the new economy. Due to the fact that HG is a component of CG mechanisms that symbolizes the background and characteristics of the board, it will be vital for businesses to incorporate it. This would result in the development of SSCM disclosure. Furthermore, there is a highly beneficial association between the features of the HG and the performance of the SSCM. Earlier research focused on the role that directors play in individually planning and improving each and every action that is taken within the supply chain in order to make it more sustainable. According to Sabat and Krishnamoorthy (2020) and Carpio- Aguilar, Rincón-Moreno, and Franco-García (2019), the personality and character of the director have a significant impact on the organization's ability to implement SSCM policies and procedures.

*a) Board Age and Board Tenure*

A person's decision-making process is influenced by the character of that person. Decisions are made based on the particular beliefs and desires of the individual in concern. According to Helzer, Cohen, and Kim (2023), a person's decision-making process can be impacted by their values, opinions, and general personality features. In the process of defining how firms should be run, including the disclosure of information about the company, the systematic inquiry takes into consideration the characteristics of the board, such as the age of these individuals. Elderly directors are thought to possess a greater amount of information, superior judgment, and more plain beliefs, in addition to a more conventional approach to conducting a company. A study conducted by Ismail and Latiff (2019) investigated the impact that board diversity has on the sustainability practices of a company. Aspects of the board's age are investigated in order to ascertain the extent to which they influence the sustainable practices of the organization. The information that was gathered encompasses the Environmental, Social, and Governance (ESG) Scores of 38 Malaysian Public Limited Companies (PLCs) from the years 2010 to 2016, and the findings revealed a significant association between the age of the board of directors and the implementation of sustainable business practices. In spite of this, Khan et al. (2019) found that there is a significant and inverse relationship between the diversity of board members' ages and the quality of the corporate social responsibility (CSR) disclosure. Fahad and Rahman (2020) found that the age of the board had a negative impact on the corporate social responsibility (CSR), and Bueno et al. (2018) found that the age of the board variables did not offer any statistical significance with regard to voluntary disclosures.

The average age of the company's directors is used as the measurement of board age by Fahad and Rahman (2020) (Ismail and Latiff, 2019). On the other hand, Bueno et al. (2018) measured board age as a range of an average of fifty years. The average age of the board members can be used as a measure of the level of competence that the members of the board of directors has regarding the company. A board that has more experienced directors has a higher average age than a board that has more directors with less professional experience. It is believed that the age of the decision-making maturity of corporate directors is a significant factor in determining the degree to which a corporation is vulnerable to SSCM. Due to the fact that the baby boomer generation is getting older, businesses want directors who are capable of ensuring their continued existence over the long term. According to the findings of prior studies, the age of the board of directors is not a significant influence when it comes to sustainable practices such as corporate disclosure and reporting. Directors, regardless of their age, are expected to engage in analytical and creative thinking in order to design and create a comprehensive SSCM disclosure.

It is possible that the executives' prior expertise with sustainability will have a role in the choice to implement sustainable purchasing methods. According to Ambekar et al. (2019), the board of directors have to possess four managerial talents in the areas of resource efficiency and carbon reporting. These abilities include knowledge, skills, motivation, and judgement. In order to guarantee that the low carbon conformance, carbon footprint management, carbon reporting, and resource efficiency objectives of the low carbon SC have been accomplished, the board of directors is vested with the authority to organize meetings and offer direction to the management group (Mohter and Fernando, 2020).

b) Board Academic Qualification

In spite of the fact that the board of directors is the most significant variable in SSCM, there are a number of factors that provide cause for concern. Therefore, Tjahjadi et al. (2021) found that the board of directors had four unfavorable consequences on the behaviors that are associated with sustainability. In the first place, the education of the board has a negative effect on the continuation of economic and environmental sustainability. Two, the performance of the board has a detrimental effect on the social sustainability of the organization, while it has no effect whatsoever on the environmental sustainability. The third point is that the education of board members has no influence on the social or environmental sustainability practices. Fourth, according to Tjahjadi et al.'s research from 2021, the size of the top management team has a negative influence on the performance of economic and environmental sustainability, but it has no impact whatsoever on the performance of social sustainability. According to Mohter and Fernando's research from 2020, the actions made by the board of directors have the potential to affect the integrity practices of the supply chain. Those members of the board who have experience in management accounting are the ones that provide the most effective SSCM practice. It is possible to tie it to the research that was carried out by Suryanto et al. (2018), which shown that there is a substantial association between management accounting practices and company performance, as well as between management accounting practices and supply chain management (SCM).

In order to ensure that all operations carried out adhere to the rules of the Sustainable Development Goals (SDGs) until the disclosure of supply chain management (SSCM) has been completed, forward-thinking businesses need to establish a department or division unit that will oversee and monitor the company's supply chain journey. Human governance characteristics are the attributes, behaviors, and practices of the humans who administer and oversee an organization. SSCM disclosure is profoundly entwined with human governance characteristics by virtue of their close relationship. These qualities have the potential to dramatically impact the manner in which sustainability is incorporated into supply chain operations and the degree to which these practices are conveyed in an open and honest manner.

c) Board Ethnicity

The way a person makes a decision might be influenced by their personal attributes, values, and beliefs. The impact of the director's ethnicity on their decision-making process regarding SSCM disclosure is the primary topic of the study. Miller and del Carmen Triana (2009) state that boards with members from different ethnic backgrounds may have a better understanding of stakeholder needs in terms of corporate social responsibility. They also claim that boards with members from the same racial group tend to provide lower-quality information regarding the company's finances and non-financial aspects (Carter et al., 2010). To be successful, companies must attract, retain, and advance the best talent regardless of their gender, race, religion, nationality, sexual orientation, or any other characteristic that is seen to be different from the "mainstream" (Jaiswal and Dyaram, 2020). Corporate social responsibility disclosure is unaffected by ethnicity (Khan, Khan, and Senturk, 2019).

In recent years, a number of empirical investigations have been carried out in both established and emerging countries. These studies have found a substantial correlation between the level of voluntary disclosure and the ethnic variety of the population (AL-Dhamari, et al., 2016). An empirical investigation was conducted by Kabara et al. (2023) to determine whether ethnic diversity has any impact on corporate disclosure. The findings of this investigation revealed that ethnic diversity considerably improves the disclosure of critical information in the capital markets. It is possible for the ethnically diverse board to better meet the requirements of stakeholders if it works to improve disclosure standards and exerts influence over the decisions made in the boardroom. It has been proposed that regulators should push governance reforms that increase the ethnic diversity of board compositions. This is because it leads to improved monitoring procedures and a greater openness to new ideas and points of view.

There is a clear correlation between the characteristics of human governance, such as leadership, ethical behavior, competency, and transparency, and the degree to which an organization is able to effectively manage and disclose its sustainability policies within the supply chain. Strong governance guarantees that initiatives to improve supply chain management (SSCM) are effectively integrated into organizational practices and reported to stakeholders in a transparent and forthright way. The results of this SLR answer the second research question, which is whether the characteristics of human governance can impact the disclosure of SSCM practices.

#### 4.4 Company Resources and SSCM Disclosure

Certain aspects of company resources are intrinsically linked to SSCM disclosure, including tangible resources such as board remuneration, intangible resources including awards and recognition, and organizational capabilities consisting of the frequency of board meetings and the presence of a risk management committee.

According to Jensen, Murphy, and Wruck (2004), effective remuneration tends to improve corporate performance while decreasing the agency problem. Board remuneration according to research by Garcia Martin and Herrero (2020), encourages environmentally friendly initiatives and boosts companies' environmental performance.

Remuneration is a form of compensation provided by the organization, and it is one of the factors that influences employee morale. While it may be difficult to lay the groundwork for an effective system, a board remuneration framework is crucial. The significance of a board of directors to management is equivalent to that of the remuneration. Certain economists argue that these boards should be entitled to full remuneration for their ideas and decisions (Perkins and Shortland, 2022).

The correlation between board compensation and job performance is inconsistent and biased. Previous researchers have found a strong association between remuneration and performance, as demonstrated by studies conducted by Raithatha and Komera (2016), and Sheikh et al. (2018). However, a study by Aslam, Haron, and Tahir (2019) found a weak correlation. However, directors who are compensated by the company for the services they provide to the firm have a responsibility to fulfill their obligations by ensuring that sustainability can be achieved in the supply chain to have the SDGs accomplished by the year 2030.

Efficient management of tangible resources within the organization can result in enhanced sustainability performance and more comprehensive disclosures (Mahmood et al., 2024).

In addition to board remuneration, researchers often utilize awards and recognition as intangible resources to assess a company's performance in terms of sustainability (Hamdoun, Achabou, and Dekhili, 2022; Ramayah, Falahat, and Soto - Acosta, 2022; Berlepsch, Lemke, and Gorton, 2022). Receiving awards can validate the company's sustainability initiatives and enhance the legitimacy of its SSCM disclosures (Dahlmann and Roehrich, 2019). Awards can catalyze fostering ongoing enhancement and originality in sustainability endeavors.

The credibility of an organization is a crucial intangible resource that can provide a competitive edge. This credibility is often built by the company's recognition and receipt of awards (Hamdoun, Achabou, and Dekhili, 2022). An exemplary corporate image is essential for a company's success, and in a culture that increasingly values environmentally friendly practices, this asset becomes even more valuable and distinctive (Wei, et al., 2023). An exemplary reputation can enhance public confidence, alleviate stakeholders' apprehensions, and attract investors and highly skilled employees. Additionally, it has the potential to mitigate the adverse consequences of a crisis (Liu, Li, and Liang, 2022). Receiving awards and recognition in the fields of sustainability or supply chain management can significantly improve a company's brand and credibility. SSCM disclosures frequently emphasize these accomplishments to showcase a dedication to optimal methods and industry benchmarks.

An esteemed reputation can provide the opportunity to set elevated prices (Klein and Leffler, 1981), enhance access to financial markets (Beatty and Ritter, 1986; Megersa, 2020), and attract investors. According to Sharma, Panday, and Dangwal (2020), environmental, social, and governance scores can serve as a metric for a company's intangible assets, such as its reputation and credibility among stakeholders and customers, regarding its transparency in environmental, social, and governance practices. The reputation of a company will enhance shareholder value by enabling customers to make more informed purchasing decisions. SSCM, not only encompasses environmental, social, and governance reporting, but also acts as a driving force behind a company's dedication to ethical business practices that are both sustainable and aligned with the demands of stakeholders. Consequently, it encompasses initiatives aimed at fulfilling the requirements of employees, suppliers, customers, and the community.

Organizational capabilities encompass the aptitude, procedures, and frameworks that a corporation possesses to effectively oversee and enhance its supply chain. These competencies are essential for adopting efficient Supply Chain and Sustainability Management methods. SSCM disclosures often encompass details regarding the company's capabilities, including its supply chain management systems, sustainability proficiency, and innovative practices. Exhibiting robust abilities can improve the quality of disclosures and demonstrate the company's effective management of sustainability concerns. This study examined the impact of board meeting frequency and the presence of risk management committees on the disclosure of sustainable supply chain management practices.

The key factor in attaining the SDGs is the organization's capacity to carry out its operations in a sustainable manner. An organization's capacity to learn, enhance, and adjust is a characteristic of its capabilities. The competitive advantage of the company was built



around its organizational capability, which encompassed management style, leadership, strategy, routines, and the organization's ability to respond to internal and external changes in the environment (Ulrich and Lake, 1991; Konopik, et al., 2022). Al-Matari (2022) asserts that a board of directors that convenes regularly has a higher level of proactivity in supervising the operation of the organization.

The frequency of meetings suggests that the company's stakeholders thoroughly evaluate each of its efforts, showcasing their commitment to creating unique offerings that will differentiate it from competitors. Regular meetings, as stated by John, Olsson, and Bosch (2023), enhance the effectiveness of managerial communication. Board committees play a crucial role in elucidating the variety of corporate responsibility and disclosure indices. This illustrates the company's proficiency in efficiently managing and enhancing its supply chain sustainability, which in turn affects the comprehensiveness and precision of its SSCM disclosures.

Essentially, the disclosure of successful Sustainable Supply Chain Management (SSCM) is backed by and mirrors the diverse resources of the organization. Awards and recognitions can boost credibility, while organizational competencies ensure efficient administration. Intangible resources contribute to reputation and innovation, while tangible resources facilitate the actual implementation of sustainability policies. Each of these components contributes to a thorough and trustworthy sustainability report. These findings from this SLR provide a solution to the third research question, which is that the resources of the company have the ability to influence the disclosure of SSCM procedures.

#### 4.5 Corporate Risk Disclosure and SSCM Disclosure

The disclosure of corporate risk and supply chain and sustainability management (SSCM) are closely linked (Davis, 2022). Both are crucial components of a company's overall transparency and accountability regarding its activities and influence. The significance of risk disclosure in a corporation refers to the need of providing clear and comprehensive information about potential risks that may affect the firm's operations, financial performance, and overall stability. Including risk disclosure in a company's annual report is highly important for several reasons. These include promoting transparency and confidence, enabling informed decision-making, meeting regulatory obligations, understanding risk management, influencing market perception, ensuring long-term viability, and offering operational insights. Companies cultivate transparency by disclosing potential risks, therefore cultivating trust among investors, stakeholders, and the general public. It displays the company's acknowledgement of its shortcomings and its proactive strategy to tackle them. Investors and stakeholders necessitate comprehensive information in order to make informed assessments (Ribeiro, et al., 2024). Risk disclosures provide useful insights into the potential hazards that could affect the company's future performance and financial stability (Vestrelli, Colladon, and Pisello, 2024).

Various legal jurisdictions have explicit legislation that require the disclosure of risks. By adhering to these rules, one can secure the avoidance of legal difficulties and penalties. Thorough risk disclosures help stakeholders understand a company's ability to handle risks effectively. This refers to the strategies and measures put in place to reduce potential issues, which can serve as indicators of the company's high level of governance excellence and managerial effectiveness. Effective risk disclosure has the capacity to improve the market's

perception of a company in a favorable way. Emphasizing the company's commitment to managing and mitigating risks may lead to more favorable evaluations from analysts and investors.

Acquiring a thorough comprehension of threats is essential for assessing a company's enduring viability. By identifying and reducing risks, a company can successfully navigate uncertainty and guarantee the ongoing operation of its business in the future. Risk disclosures often provide valuable insights into a company's operational environment and strategic challenges. This can aid stakeholders in understanding the broader framework within which the company operates.

The supply chain sustainability management (SSCM) disclosure is more narrowly focused on ESG (environmental, social, and governance) risks, whereas the corporate risk disclosure is more comprehensive and gives a bird's-eye view of risk management strategies. Both kinds of disclosure are connected to one another, as supply chain management (SSCM) disclosure offers specific insights into hazards that are present inside the supply chain and are a component of the larger company risk landscape more generally. Effective management and transparent disclosure of SSCM risks contribute to the overall business risk management strategy and assist ensure that all relevant risks are handled and reported to stakeholders. SSCM risks are classified as strategic supply chain management hazards. This answering the fourth research question how the risk disclosure and SSCM disclosure being related.

## **5. Conclusion**

It is essential to have a solid understanding of the ways in which the processes of corporate governance, human governance characteristics, company resources, and risk disclosure are connected to the Sustainable Development Goals (SDGs) by the year 2030. The Sustainable Development Goals (SDGs) make it simpler for businesses to align their strategies with the requirements of society. It is possible that they will assist in the creation of new markets and draw attention to creative regions. This is the reason why the debate of options that is included in the 17 goals, which includes SSCM, is particularly relevant now. It is feasible to minimize the impact on the environment, improve supply continuity, protect against reputational harm, expand the prospect of new collaborations, and increase revenues through the use of supply chain management (SSCM). According to the findings of this study, there is a connection between SSCM and corporate governance mechanisms, human governance characteristics, company resources, and risk disclosure. One of the most significant changes that we have made to the literature review is to take into account each of these concerns collectively rather than individually. During the process of review, the author adhered to the Reporting Standards for Systematic Evidence Syntheses (ROSES), which served as a guide. For the purpose of this investigation, Scopus, Web of Science, and Google Scholar were utilized as the key databases for conducting a theme analysis. An investigation was conducted into the approaches, problems, and practices that have been prevalent in the academic area during the course of the past seven years (2018–2024). It was discovered that there were fifteen sub-themes, which were then grouped into four primary themes. Furthermore, it is strongly recommended that future studies incorporate external corporate governance mechanisms that have the potential to influence the SSCM practices and disclosure of the organization. It is the purpose of this study to provide

practitioners with assistance in the implementation of SSCM, and to supply authorities with evidence to support the listing and provision of the necessary items in order for SSCM to be implemented in accordance with the standards that have been established, and to raise awareness of the significance of achieving the Sustainable Development Goals by the year 2030.

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### **Conflict of Interest**

No conflict of interest associated with this publication.

### **References**

- Adenan, N. Z. C., & Said, R. (2021). The role of board diversity on the relationship between corporate governance, human capital and integrated reporting: a systematic literature review approach. *International Journal of Critical Accounting*, 12(5), 382-402.
- Al-dhamari, R., Ku Ismail, K. N. I., & Al-Gamrh, B. (2016). Board diversity and corporate payout policy: Do free cash flow and ownership concentration matter?. *Corporate Ownership and Control*, 14(1).
- Alkurdi, A., Hussainey, K., Tahat, Y., & Aladwan, M. (2019). The impact of corporate governance on risk disclosure: Jordanian evidence. *Academy of Accounting and Financial Studies Journal*, 23(1), 1-16.
- Al-Matari, E. M. (2022). Do corporate governance and top management team diversity have a financial impact among financial sector? A further analysis. *Cogent Business & Management*, 9(1), 2141093
- Ambekar, S. Prakash, A., Patyal, & V. Singh. (2019). Role of culture in low carbon supply chain capabilities. *Journal of Manufacturing Technology Management*, 30(1), 146-179
- Amrin, A. (2019). An empirical study: Characteristics of business entities and corporate governance on risk disclosure practices. *Verslas: teorija ir praktika*, 20(1), 25-49.

- Aray, Y., Veselova, A., Knatko, D., & Levchenko, A. (2020). Drivers for adoption of sustainability initiatives in supply chains of large Russian firms under environmental uncertainty. *Corporate Governance: The International Journal of Business in Society*, 21(2), 322-33.
- Aslam, E., Haron, R., & Tahir, M. N. (2019). How director remuneration impacts firm performance: An empirical analysis of executive director remuneration in Pakistan. *Borsa Istanbul Review*, 19(2), 186-196. <https://doi.org/10.1016/j.bir.2019.01.003>
- Avci, S. B., & İyigün, İ. (2017). Corporate and supply chain network governance of third party logistics service providers: Effects on buyers' intention to continue the relationship. *Management & Marketing*, 12(2), 277-296.
- Baliga, R., Raut, R. D., & Kamble, S. S. (2020). Sustainable supply chain management practices and performance: An integrated perspective from a developing economy. *Management of Environmental Quality: An International Journal*, 31(5), 1147-1182.
- Barcellos de Paula, L., Gil-Lafuente, A. M., & Rezende, A. D. C. (2021). Sustainable management of the supply chain based on fuzzy logic. *Cybernetics and Systems*, 52(7), 579-600.
- Beatty, R. P., & Ritter, J. R. (1986). Investment banking, reputation, and the underpricing of initial public offerings. *Journal of financial economics*, 15(1-2), 213-232.
- Benjamin, S., Mansi, M., & Pandey, R. (2020). Board gender composition, board independence and sustainable supply chain responsibility. *Accounting & Finance*, 60(4), 3305-3339.
- Bergman, E. M. L. (2012). Finding citations to social work literature: The relative benefits of using Web of Science, Scopus, or Google Scholar. *The journal of academic librarianship*, 38(6), 370-379.
- Berlepsch, D., Lemke, F., & Gorton, M. (2022). The importance of corporate reputation for sustainable supply chains: a systematic literature review, bibliometric mapping, and research agenda. *Journal of Business Ethics*, 1-26.
- Böttcher, C. F., & Müller, M. (2015). Drivers, practices and outcomes of low - carbon operations: approaches of German automotive suppliers to cutting carbon emissions. *Business Strategy and the Environment*, 24(6), 477-498.
- Braun, V., & Clarke, V. (2024). Supporting best practice in reflexive thematic analysis reporting in Palliative Medicine: A review of published research and introduction to the Reflexive Thematic Analysis Reporting Guidelines (RTARG). *Palliative Medicine*, 38(6), 608-616.
- Bueno, G., Marcon, R., Pruner-da-Silva, A. L., & Ribeirete, F. (2018). The role of the board in voluntary disclosure. *Corporate Governance: The international journal of business in society*, 18(5), 809-838.
- Cai, J., Lin, H., Hu, X., & Ping, M. (2022). Green supply chain game model and contract design: risk neutrality vs. risk aversion. *Environmental Science and Pollution Research*, 29(34), 51871- 51891.

- Carpio-Aguilar, J. C., Rincón-Moreno, J., & Franco-García, M. L. (2019). Potential of carbon footprint reduction within retailers: Food waste at Walmart in Mexico. *In Sustainable Development Goals and Sustainable Supply Chains in the Post-global Economy* pp. 225-240). Springer, Cham.
- Carter, D. A., D'Souza, F., Simkins, B. J., & Simpson, W. G. (2010). The gender and ethnic diversity of US boards and board committees and firm financial performance. *Corporate Governance: An International Review*, 18(5), 396-414.
- Chantachaimongkol, N., & Chen, S. (2018). The effects of board compositions and audit committee characteristics on information disclosure practices: a case of Singapore. *Asian Journal of Finance and Accounting*, 10(1), 407-427.
- Chatchawanchanchanakij, P., Arpornpisal, C., & Jernsittiparsert, K. (2019). The role of corporate governance in creating a capable supply chain: A case of Indonesian Tin industry. *International Journal of Supply Chain Management*, 8(3), 854-864.
- Ciliberto, C., Szopik - Depczyńska, K., Tarczyńska - Łuniewska, M., Ruggieri, A., & Ioppolo, G. (2021). Enabling the Circular Economy transition: A sustainable lean manufacturing recipe for Industry 4.0. *Business Strategy and the Environment*, 30(7), 3255-3272.
- Dahlmann, F., & Roehrich, J. K. (2019). Sustainable supply chain management and partner engagement to manage climate change information. *Business Strategy and the Environment*, 28(8), 1632-1647.
- Davis, U. (2022). Water resource and risk management in supply chains (*Doctoral dissertation, Loughborough University*).
- Doan, T. (2020). Supply chain management drivers and competitive advantage in manufacturing industry. *Uncertain Supply Chain Management*, 8(3), 473-480.
- El Baz, J., Jebli, F., Temidayo, A., & Cherrafi, A. (2021). Towards responsible conflict minerals supply chain management: a systematic literature review and a supply chain governance framework. *The International Journal of Logistics Management*, 32(3), 720-741.
- Fahad, P., & Rahman, P. M. (2020). Impact of corporate governance on CSR disclosure. *International Journal of Disclosure and Governance*, 17(2-3), 155-167.
- Famiyeh, S., Kwarteng, A., Asante-Darko, D., & Dadzie, S. A. (2018). Green supply chain management initiatives and operational competitive performance. *Benchmarking: An International Journal*, 25(2), 607-631.
- Feng, T., Qamruzzaman, M., Sharmin, S. S., & Karim, S. (2024). Bridging Environmental Sustainability and Organizational Performance: The Role of Green Supply Chain Management in the Manufacturing Industry. *Sustainability*, 16(14), 5918.
- Gallego-Alvarez, I. and Pucheta-Martinez, M.C. (2020), "Corporate social responsibility reporting and corporate governance mechanisms: an international outlook from emerging countries", *Business Strategy and Development*, Vol. 3 No. 1, pp. 77-97.

- Gandhi, M., & Vasudevan, H. (2019). Green supply chain management practices and its impact on business performance. In *Proceedings of International Conference on Intelligent Manufacturing and Automation* (pp. 601-611). Springer, Singapore.
- García Martín, C. J., & Herrero, B. (2020). Do board characteristics affect environmental performance? A study of EU firms. *Corporate Social Responsibility and Environmental Management*, 27(1), 74-94. <https://doi.org/10.1002/csr.1775>
- Giunipero, L. C., Hooker, R. E., & Denslow, D. (2012). Purchasing and supply management sustainability: Drivers and barriers. *Journal of purchasing and supply management*, 18(4), 258-269.
- González-Prida, V., Parra, C., Crespo, A., Kristjanpoller, F. A., & Gunckel, P. V. (2022). Reliability engineering techniques applied to the human failure analysis process. In *Cases on Optimizing the Asset Management Process*, IGI Global, 162-179.
- Gruchmann, T., Topp, M., & Seeler, S. (2022, October). Sustainable supply chain management in tourism: a systematic literature review. In *Supply Chain Forum: An International Journal* (Vol. 23, No. 4, pp. 329-346). Taylor & Francis.
- Gusenbauer, M., & Haddaway, N. R. (2020). Which academic search systems are suitable for systematic reviews or meta - analyses? Evaluating retrieval qualities of Google Scholar, PubMed, and 26 other resources. *Research synthesis methods*, 11(2), 181-217.
- Haddaway, N. R., Macura, B., Whaley, P., & Pullin, A. S. (2018). ROSES Reporting standards for Systematic Evidence Syntheses: pro forma, flow-diagram and descriptive summary of the plan and conduct of environmental systematic reviews and systematic maps. *Environmental Evidence*, 7(1), 1-8.
- Haleem, A., Khan, M. I., & Khan, S. (2021). Conceptualising a framework linking halal supply chain management with sustainability: an India centric study. *Journal of Islamic Marketing*, 12(8), 1535-1552.
- Hamdoun, M., Achabou, M. A., & Dekhili, S. (2022). Could CSR improve the financial performance of developing countries' firms? Analyses of mediating effect of intangible resources. *European Business Review*, 34(1), 41-61.
- Haque, F., & Ntim, C. G. (2022). Do corporate sustainability initiatives improve corporate carbon performance? Evidence from European firms. *Business Strategy and the Environment*, 1– 17. <https://doi.org/10.1002/bse.3078>
- Haron, H., Jamil, N. N., Ramli, N. M., Abd Aziz, S., Sulaiman, S., Gautama, I., ... & Kamarudin, N. K. (2022). Human Governance Index of Manufacturing Sector of Shariah Compliant Companies in Malaysia: A Preliminary Analysis. *Journal of Governance and Integrity*, 5(2), 283-296. <https://doi.org/10.15282/jgi.5.2.2022.7361>
- Helzer, E. G., Cohen, T. R., & Kim, Y. (2023). The character lens: A person-centered perspective on moral recognition and ethical decision-making. *Journal of Business Ethics*, 182(2), 483-500.

- Herda, D. N., Taylor, M. E., & Winterbotham, G. (2014). The effect of country - level investor protection on the voluntary assurance of sustainability reports. *Journal of International Financial Management & Accounting*, 25(2), 209-236
- Huang, Y. C., Borazon, E. Q., & Liu, J. M. (2021). Antecedents and consequences of green supply chain management in Taiwan's electric and electronic industry. *Journal of Manufacturing Technology Management*, 32 (5), 1066-1093.
- Ismail, A. M., & Latiff, I. H. M. (2019). Board diversity and corporate sustainability practices: Evidence on environmental, social and governance (ESG) reporting. *International Journal of Financial Research*, 10(3), 31-50.
- Istianingsih, I. (2020). The effect of corporate social responsibility and good corporate governance on pharmaceutical company tax avoidance in Indonesia, 11(12), 977-983.
- Jaimes-Valdez, M. A., & Jacobo-Hernandez, C. A. (2016). Sustainability and corporate governance: Theoretical development and perspectives. *J. Mgmt. & Sustainability*, 6 (3), 44.
- Jaiswal, A., & Dyaram, L. (2020). Perceived diversity and employee well-being: Mediating role of inclusion. *Personnel Review*, 49(5), 1121-1139
- Jen, C. T., Hu, J., Zheng, J., & Xiao, L. L. (2020). The impacts of corporate governance mechanisms on knowledge sharing and supply chain performance. *International Journal of Logistics Research and Applications*, 23(4), 337-353.
- Jensen, M. C., Murphy, K. J., & Wruck, E. G. (2004). Remuneration: Where we've been, how we got to here, what are the problems, and how to fix them.
- John, M. M., Olsson, H. H., & Bosch, J. (2023). Towards an AI - driven business development framework: A multi - case study. *Journal of Software: Evolution and Process*, 35(6), e2432.
- Kabara, A. S., Abdullah, D. F., Khatib, S. F., Bazhair, A. H., & Al Amosh, H. (2023). Moderating Role of Governance Regulatory Compliance on Board Diversity and Voluntary Disclosure of Non- Financial Firms in a Developing Country. *Sustainability*, 15(5), 4527.
- Kaminsky, P., & Simchi-Levi, D. (2003). Production and distribution lot sizing in a two stage supply chain. *IIE Transactions*, 35(11), 1065-1075.
- Khan, I., Khan, I., & Senturk, I. (2019). Board diversity and quality of CSR disclosure: evidence from Pakistan. *Corporate Governance: The International Journal of Business in Society*, 19(6), 1187- 1203.
- Khan, S., & Singh, R. (2021). Critical factors for blockchain technology implementation: a supply chain perspective. *Journal of Industrial Integration and Management*, <https://doi.org/10.1142/S2424862221500111>.

- Khatib, S. F., & Nour, A. (2021). The impact of corporate governance on firm performance during the COVID-19 pandemic: Evidence from Malaysia. *Journal of Asian Finance, Economics and Business*, 8(2), 0943-0952.
- Klein, B., & Leffler, K. B. (1981). The role of market forces in assuring contractual performance. *Journal of political Economy*, 89(4), 615-641.
- Konopik, J., Jahn, C., Schuster, T., Hoßbach, N., & Pflaum, A. (2022). Mastering the digital transformation through organizational capabilities: A conceptual framework. *Digital Business*, 2(2), 100019. <https://doi.org/10.1016/j.digbus.2021.100019>
- Kumar, A., & Paraskevas, J. P. (2018). A proactive environmental strategy: Analyzing the effect of SCM experience, age, and female Representation in TMT s. *Journal of supply chain management*, 54(4), 20-41.
- Kurniawan, P., Yulianti, M. L., & Jufri, A. (2020). Improving Environmental Performance by Implementing the Activities of Supply Chain. *Int. J Sup. Chain. Mgt*, 9(4), 462.
- Liu, Y. F., Li, H., & Liang, S. (2022). Any reputation is a good reputation: influence of investor-perceived reputation in restructuring on hospitality firm performance. *Annals of Tourism Research*, 92, 103327.
- Maak, T., & Pless, N. M. (2021). Corporate Social Responsibility (CSR): Bringing Society Back In. In *The Routledge Companion to Corporate Social Responsibility* (pp. 1-14). *Routledge Companion*. Routledge.
- Mahmood, S., Misra, P., Sun, H., Luqman, A., & Papa, A. (2024). Sustainable infrastructure, energy projects, and economic growth: mediating role of sustainable supply chain management. *Annals of Operations Research*, 1-32.
- Megersa, K. (2020). Improving SMEs' access to finance through capital markets and innovative financing instruments: some evidence from developing countries
- Miller, T., & del Carmen Triana, M. (2009). Demographic diversity in the boardroom: Mediators of the board diversity-firm performance relationship. *Journal of Management studies*, 46(5), 755-786.
- Mohter, N., & Fernando, Y. (2020). Corporate Governance and Low Carbon Supply Chains: Why Integrity Matters? *Journal of Governance and Integrity*, 3(2, 37-43.
- Moussa, A. M. A., El-Gamal, F. E. Z. A., & El Fetouh, A. S. A. (2023, February). Blockchain Technology to Enhance Performance of Drugs Supply Chain in the Era of Digital Transformation in Egypt. In *World Conference on Internet of Things: Applications & Future* (pp. 85-96). Singapore: Springer Nature Singapore.
- Naciti, V. (2019). Corporate governance and board of directors: The effect of a board composition on firm sustainability performance. *Journal of Cleaner Production*, 237(2019), 117727.



- Nakagawa, S., Yang, Y., Macartney, E. L., Spake, R., & Lagisz, M. (2023). Quantitative evidence synthesis: a practical guide on meta-analysis, meta-regression, and publication bias tests for environmental sciences. *Environmental Evidence*, 12(1), 8.
- Ngo, V. M., Quang, H. T., Hoang, T. G., & Binh, A. D. T. (2024). Sustainability - related supply chain risks and supply chain performances: The moderating effects of dynamic supply chain management practices. *Business Strategy and the Environment*, 33(2), 839-857.
- Okoli, C., & Schabram, K. (2010). A guide to conducting a systematic literature review of information systems research. *Social Science Research Network*. 10(26), 1-49.
- Pechancová, V., Hrbáčková, L., Dvorský, J., Chromjaková, F., & Stojanović, A. (2019). Environmental management systems: an effective tool of corporate sustainability. *Entrepreneurship and Sustainability Issues*, 7(2), 825-841.
- Perkins, S. J., & Shortland, S. (2022). The social construction of executive pay: governance processes and institutional isomorphism. *Journal of Organizational Effectiveness: People and Performance*, 9(4), 610-636
- Pinegar, H., & Smith, Y. R. (2019). End-of-life lithium-ion battery component mechanical liberation and separation. *JOM*, 71(12), 4447-4456.
- Queiroz, M. M., Telles, R., & Bonilla, S. H. (2020). Blockchain and supply chain management integration: a systematic review of the literature. *Supply chain management: An international journal*, 25(2), 241-254.
- Raithatha, M., & Komera, S. (2016). Executive compensation and firm performance: Evidence from Indian firms. *IIMB Management Review*, 28(3), 160-169. <https://doi.org/10.1016/j.iimb.2016.07.002>
- Ramayah, T., Falahat, M., & Soto - Acosta, P. (2022). Effects of corporate social responsibility on employee commitment and corporate reputation: Evidence from a transitional economy. *Corporate Social Responsibility and Environmental Management*, 29(6), 2006-2015
- Ribeiro, C. D. M. D. A., Cosenza, J. P., Zotez, L. P., & Vieira Neto, J. (2024). Disclosure of nonfinancial information in integrated reporting: the Brazilians professionals investors's perspective. *International Journal of Emerging Markets*, 19(6), 1695-1717.
- Sabat, K. C., & Krishnamoorthy, B. (2020). Sustainable supply chain management practices and their mediation effect on economic returns. *Corporate Governance*, 4(1), 8-20.
- Said, R., Joseph, C., Rahmat, M., Abdullah, W. N., Radjeman, L. A., Hotrawaisaya, C., & Moryadee, C. (2020). Development of supply chain management sustainability index (SCMSi). *Int. J. Supply Chain Manag*, 9, 902-907.
- Said, R., Rahim, A. A. A., & Hassan, R. (2018). Exploring the effects of corporate governance and human governance on management commentary disclosure. *Social Responsibility Journal*, 14(4), 843-858.

- Sánchez-Medina, P. S. (2020). Organizational capability for change and performance in artisanal businesses in Mexico. *Journal of Organizational Change Management*, 33(2), 415-431.
- Sari, P. A., & Sari, W. P. (2022). The Small Firm Performance and Entrepreneurial Competence Revealed Through Competitiveness Framework: A Case Study of MSMEs in Indonesia. In *Modeling Economic Growth in Contemporary Indonesia* (pp. 1-24). Emerald Publishing Limited. <https://doi.org/10.1108/978-1-80262-431-120221001>
- Sebastianelli, R., & Tamimi, N. (2020). Antecedents of sustainable supply chain initiatives: Empirical evidence from the S&P 500. *Business and Society Review*, 125(1), 3-22.
- Senjaya, A., Sule, E. T., Effendi, N., & Cahyandito, M. F. (2020). Effect of corporate governance and risk management against corporate sustainability at the coal mining industry in Indonesia. *Academy of Strategic Management Journal*, 19(2), 1-12.
- Shabbir, M. S., & Kassim, N. M. (2018). Supply chain management drivers and sustainability of green initiatives in manufacturing enterprises: A case in Pakistan. *International Journal of Entrepreneurship*, 22(15), 1-19.
- Shaffril, H. A. M., Samah, A. A., & Kamarudin, S. (2021). Speaking of the devil: a systematic literature review on community preparedness for earthquakes. *Natural hazards*, 108(3), 2393- 2419.
- Sharma, P., Panday, P., & Dangwal, R. C. (2020). Determinants of environmental, social and corporate governance (ESG) disclosure: a study of Indian companies. *International Journal of Disclosure and Governance*, 17, 208-217
- Shayganmehr, M., Kumar, A., Luthra, S., & Garza-Reyes, J. A. (2021). A framework for assessing sustainability in multi-tier supply chains using empirical evidence and fuzzy expert system. *Journal of Cleaner Production*, 317(2021), 128302.
- Sheikh, M. F., Shah, S. Z. A., & Akbar, S. (2018). Firm performance, corporate governance and executive compensation in Pakistan. *Applied economics*, 50(18), 2012-2027. <https://doi.org/10.1080/00036846.2017.1386277>
- Shekarian, E., Ijadi, B., Zare, A., & Majava, J. (2022). Sustainable Supply Chain Management: A Comprehensive Systematic Review of Industrial Practices. *Sustainability*, 14(13), 7892.
- So, I. G., Haron, H., Gui, A., Princes, E., & Sari, S. A. (2021). Sustainability Reporting Disclosure in Islamic Corporates: Do Human Governance, Corporate Governance, and IT Usage Matter?. *Sustainability*, 13(23), 13023. <https://doi.org/10.3390/su132313023>
- Suryanto, T., Haseeb, M., & Hartani, N. H. (2018). The correlates of developing green supply chain management practices: Firms level analysis in Malaysia. *International Journal of Supply Chain Management*, 7(5), 316.
- Sutjipto, M. R., Sule, E. T., Kaltum, U., & Prasetyo, A. (2019). The Role of Company Resources and Strength of Industrial Competition on Competitive Strategy in Indonesian Wholesale Network Industry. *Academy of Strategic Management Journal*, 18(5), 1-8.

- Thambugala, T., & Rathwatta, H. (2021). Board characteristics and corporate social responsibility practices: in upper echelon theory perspective evidence from Sri Lankan Firms.
- Tjahjadi, B., Soewarno, N., & Mustikaningtiyas, F. (2021). Good corporate governance and corporate sustainability performance in Indonesia: A triple bottom line approach. *Heliyon*, 7(3), e06453.
- Ulrich, D., & Lake, D. (1991). Organizational capability: Creating competitive advantage. *Academy of Management Perspectives*, 5(1), 77-92.  
<https://doi.org/10.5465/ame.1991.4274728>
- Usman, I., Jihadi, M., & Ambarwati, T. (2020). The impact of corporate governance in forming a strong supply chain: Evidence from Indonesia. *International Journal of Supply Chain Management*, 9(2), 467-476.
- Uyar, A., Kilic, M., Koseoglu, M.A., Kuzey, C. and Karaman, A.S. (2020), "The link among board characteristics, corporate social responsibility performance, and financial performance: evidence from the hospitality and tourism industry", *Tourism Management Perspectives*, Vol. 35, 100714
- Velte, P. (2024). Sustainable board governance and sustainable supply chain reporting: European evidence. *Journal of Strategy and Management*, 17(2), 222-243.
- Verstappen, S., van Rijn, R. M., Cost, R., & Stubbe, J. H. (2021). The association between training load and injury risk in elite youth soccer players: a systematic review and best evidence synthesis. *Sports medicine-open*, 7 (6), 1-14.
- Vestrelli, R., Colladon, A. F., & Pisello, A. L. (2024). When attention to climate change matters: The impact of climate risk disclosure on firm market value. *Energy Policy*, 185, 113938.
- Wei, F., Abbas, J., Alarifi, G., Zhang, Z., Adam, N. A., & de Queiroz, M. J. (2023). Role of green intellectual capital and top management commitment in organizational environmental performance and reputation: Moderating role of pro-environmental behavior. *Journal of Cleaner Production*, 405, 136847.
- Zaki, N. H. M., & Ismail, Z. (2021). Towards Inclusive Education for Special Need Students in Higher Education from the Perspective of Faculty Members: A Systematic Literature Review. *Asian Journal of University Education*, 17(4), 201-211.
- Zampone, G., Nicolò, G., Sannino, G., & De Iorio, S. (2024). Gender diversity and SDG disclosure: the mediating role of the sustainability committee. *Journal of Applied Accounting Research*, 25(1), 171-193.



