Educational Administration: Theory and Practice
2024, 30(5), 13889-13898
ISSN: 2148-2403
https://kuey.net/

Research Article

Green Supply Chain Management Practices in Higher Educational Institutions: A Comprehensive Review of Research and Future Directions

Dr Coral Barboza[1*], Dr. Aanchal Puri[2], Abinaya Ishwarya G K[3], Sunny Prakash[4], Mr.Bandaru Vijaychandra[5], Dr C Gurudas Nayak[6]

[1*]Associate Professor, Business Management Amity University GautamBudh Nagar, Noida UP, Email- barboza.coral@gmail.com
[2]Assistant Professor, Department: Business Administration Kanoria PG Mahila Mahavidyalaya , Jaipur, Jaipur Rajasthan, Email id - Puri.aancy@gmail.com
[3]Assistant Professor, Civil Engineering Vels Institute of Science Technology and Advanced Studies, Pallavaram, Chennai - Tamil Nadu, abinaya.se@velsuniv.ac.in
[4]Assistant Professor, Applied Science And Humanities Gl Bajaj Institute Of Technology And Management, Greater Noida, Gautam Buddh Nagar, Greater Noida, Uttar Pradesh
[5]Assistant Professor, Electronics And Electrical Engineering Pace Institute Of Technology And Sciences Prakasam Ongole, Andhra Pradesh, Email:dr_mvr@pace.ac.in
[6]Professor, Department of Instrumentation and Control Engineering, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal -576104, Email cg.nayak@manipal.edu

Citation: Dr Coral Barboza et al. (2024) Green Supply Chain Management Practices in Higher Educational Institutions: A Comprehensive Review of Research and Future Directions, *Educational Administration: Theory and Practice*, *30*(5), 13889-13898
Doi: 10.53555/kuey.v30i5.6112

ARTICLE INFO

ABSTRACT

This paper offers valuable information on the implementation and practicability of Green Supply Chain Management (GSCM) strategies in HEIs in terms of procurement, environmental disposal, power utilization, and people involvement. Empirical research based on the current literature and case studies reveal the benefits, risks, and tactics of GSCM in the current business environment. For instance, Stanford University's Zero Waste Program achieved an ambitious goal of 80% waste reduction in 2005; MIT deployed solar panel systems that led to a decrease in energy expenses by a quarter. As the study also shows there are factors that limit or act as barriers to implementing the strategies such as financial limitations, lack of awareness, people's resistance to change, inadequate infrastructure and legal frameworks. To overcome the above, HEIs are urged to diversify their funding strategies, ensure they provide a holistic education and write all inclusive policies. There are four research avenues for future research: The first is to conduct longitudinal studies that can assess the sustained effectiveness of GSCM strategies, the second is comparisons that would compare GSCM in different parts of the world, the third is an investigation into the effectiveness or otherwise of embracing new technologies to improve on GSCM practices. The study offers important implications of the practice to the administrators of the HEI, policy makers and scholars namely, commitment, education and innovation as some of the key areas that would aid in enhancing GSCM. Through such practices, HEIs can play a meaningful role in enhancing global sustainability, optimizing managerial processes within HEIs, and facilitating cultural changes within society.

Keywords: Green Supply Chain Management, Higher Educational Institutions, Sustainability, Waste Management, Energy Efficiency

I. INTRODUCTION

Green Supply Chain Management (GSCM) has taken central stage in as a critical tool for directing sustainable resource management across the supply chain within organizations. Derived from the larger conceptual framework of supply chain management, GSCM incorporates environmental considerations into classic supply chain strategies and covers issues related to product design and development, supply of materials and other inputs, manufacturing, delivery and distribution of the final product and end-of-life disposal of the product once it has served its useful life [1]. Again, the goal is to reduce harm to the environment while at the same time increasing economic benefits as well as competitive edge. Similar to other research, this study acknowledges

that HEIs are better placed to support GSCM by embracing sustainable development due to their roles as educators, researchers, and influential agents in the society [2]. By investing in GSCM practices, HEIs have it within their bounds to interpret more as consumers of resources and producers of waste. In addition, through supply chain initiatives and other sustainable activities the HEIs will serve as a role model for the students, staff and the wider community through most importantly the promotion of sustainable consumption [3]. Although GSCM has been proved to play a significant role globally, its adoption procedure at HEIs can still be classified as work in progress and filled with potential research topics. The issues related with managing supply chain networks in educational contexts which are not just centralized but are often heterogeneous in nature, makes it quite rewarding as well as challenging. ;It is hoped that this review is able to discuss current trends and the particular issues of GSCM practices in HEIs, successful cases, amongst others. Further, it aims at identifying the research agendas and pointing out their weaknesses along with recommending future research avenues to facilitate the practice of GSCM in HEIs. This study can also be useful in systematically analyzing the literature and identifying strategies that can help to implement GSCM practices in various HEIs. The study can contribute not only to the academic literature, but also to the HEI administrators and policy makers will benefit from the research while attempting to implement sustainability initiatives. By such, HEIs would be able to ensure that the operational modus operandi of the institution is in harmony with the global call for environmental sustainability.

II. RELATED WORKS

As a result, there is ample literature on green practices in several industries with appreciable concern on the HEIs as well. This section presents a focus on prior research works done in GSCM and related practices in HEIs and other similar contexts and discuss about trends, issues and future development. In another paper El-Awady and MD [15] explicate hybrid assessment methods to give stability and sustainability for supply chain management. Their study also highlights on the issue of how sustainable can be included in supply chain practices to improve the supply chain's ability to withstand disruptions and the achievement of long-term sustainable objectives. This research is relevant to a similar context in HEIs because the institutions can adopt comparable hybrid assessment approaches to assess and enhance the institution's supply chain for resilience and sustainability. Faheem et al., studied how GHRM helps in green innovation which has been discussed above. Their bibliometric analysis reveals the previous and emerging frontiers in the configuration of GHRM, which has an added appeal to organizations to bring about change via green principles. This approach will help HEIs to adopt GHM practices in enhancing the culture of sustainable and innovative staff and students. Some literature on the matter includes sustainability and circularity in waste management systems by Giurea et al. [17]. They give information on the existing arrangements regarding WM and WS and possible ways for their enhancement. This study is closely related to GSCM in HEIs because waste management component is an essential part of effective sustainable supply chain management. With the help of the aforementioned strategies, the HEIs can consider improving the efficiency of their waste management and achieve the goals of sustainability. Habeeb and Serife [18] have discussed the influence of the strategic planning and transformational leadership towards the organizational performance of higher education institutions in Nigeria, where後の They concluded that strategic and organisational management plays a critical role in achieving sustainable practices in HEIs. Hence, the present study emphasizes the need for leadership and strategic implementation among educational organizations in the execution of GSCM practices. A systematic review of the use of educational technologies and the development of entrepreneurial competencies was discussed by Hammoud in his article [19]. It is essential to state that as the problem under consideration is closely related to entrepreneurship this study sheds the light on the possibilities of using educational technologies for the development of competencies crucial for implementing GSCM practices in HEIs. Educational technologies can thus improve the ability of HEIs to equip future leaders with SCM knowledge and skills in sustainable supply chain management. Hareer et al. [20] discuss the kaknumber and its effect on knowledge sharing relating to supply chain cnts, with an emphasis on food supply chain networks. Their work uses sustainable supply chain practices that are effective in handling the difficulties arising from the complexities of the supply chain. Some suggestions that HEIs can implement from this research include the following in an attempt to reduce the supply chain complexity in their organisations as well as sharing knowledge about sustainability practices. Huang et al. [21] focus on internal incentives to minimize carbon emission in capital scarce supply chain context from a financing angle. They argue thatwithout ensuring that rewards are aligned to prompt sustainable behaviours within supply chains, efforts towards delivering sustainable solutions with minimal impacts on the environment will be futile. This is especially so for the HEIs, many of which face this challenge due to limited funds that they have at their disposal, hence they will require to determine the available financial incentives for their GSCM activities. The relevance of GHRM practices to sustainable organisational development has been supported by Jaganac et al. [22] using investigations in Serbia and Bosnia and Herzegovina. It can be ascertained from these pieces of evidence the role of GHRM practices in the sustainable development of organizations. This case reveals that the HEIs in this study's regions can replicate the above practices to improve overall sustainability and attain enduring environmental objectives. Sustainable supply chain management in a circular economy context is explored by Ka et al. [23],

with the latter specifically analysing the sources of information and data on Vietnamese enterprises' participation in CE. These findings can inform HEIs on the factors involved in the adoption of circular economy within flow chains, and the creation of fitting paths. Kanan et al. , [24] on the other hand, examine the moderation of green innovation between the GHRM practices and sustainable performance in Palestinian manufacturing industries. However, they note that for sustainable performance to be attained, green innovation has to be incorporated fully. Some implications for HEIs Based on this research, HEIs can make useful recommendations regarding green innovation as influenced by GHRM practices to further improve their sustainable performance. Lin [25] discusses the evaluation of health education at HEIs with reference to the integration of both digital health and bio technological advancements. This research highlights the need strongly to integrate technology enhanced learning initiatives into educational practices for sustainability. Reporting digital health and biotechnological innovation can position HEIs towards better GSCM locally and internationally and align employees towards sustainability. Similarly, Madani et al. [26] contribute a systematic review on sustainable SSCPND on optimization approaches and research trends. This paper provides them with a review of the state-of-the-art optimization techniques discerning areas that hold success factors for improving the sustainability of supply chain networks. These optimization approaches can be adopted by the HEIs to develop effective sustainable supply-chain networks in line with their sustainability plans.

III. METHODS AND MATERIALS

This research employs a qualitative systematic review of reviewed literature on GSCM practices in Higher Educational Institute settings. The methodology involves several key steps: introduction of the study scope and context, identification of the data gathering and analysis techniques, and integration of the study outcomes.

Scope Definition

So, the initial stage of this work concerned itself first with making out the necessary parameters about scope and goal of the overall study. The emphasis was on learning and categorizing the literature in the area of GSCM practices mainly focusing HEIs [4]. This entails reviewing different aspects of GSCM like procurement, waste management, energy conservation and the recognition of the roles and responsibilities of the different stakeholders in the case of educational institutions. It was done so that the sampling would include adequately various geographical areas and types of institutions in order to get adequate ideas concerning the topic.

Data Collection

Further, data collection involved electronic searches on scholarly databases such as Scopus, Web of science, Google scholars, and open digital repositories. The keywords included "Green Supply Chain Management," "Sustainable Supply Chain," "Higher Education," "Universities," and "Environmental Practices in HEIs." Several articles were retrieved with these search terms, and the results were further refined using the relevance, quality, and the time of the articles' publication, in this case the last two decades [5].

So, by the use of this approach, we were able to identify 200 articles based on our search results. It means that these articles were stringently shortlisted based on several steps as they are presented below. First, titles and abstracts of all the articles were screened for relevance and marked if they did not meet the criteria of the research; thus, 80 articles were excluded. Of the 120 articles, a full-text review was conducted to eliminate articles which did not have a focus on GSCM practices in HEIs, and 60 papers emerged as high-quality papers that were relevant to GSCM Practices in HEIs [6].

Data Analysis

To analyze the selected articles, the considered method was the qualitative content analysis. This entailed categorizing the articles with an emphasis on the elements of GSCM present in the context of HEIs. Coding was cyclical, and different coding iterations helped code reviewers, review the codes, and merge them into consolidated themes [7]. The major themes about which respondents had something to say included sustainable management of procurement processes, handling and disposal of wastes, energy management, and the involvement of stakeholders.

To further maintain the credibility, the data analysis was done by the two researches without the knowledge of each other. In the work, the two authors discussed each other's coding and decided on the themes that went into the study. The combining of the analyses from the two approaches served to countercheck the biases and increase the reliability of the results.

Synthesis of Findings

The analysis strategy in the present study entailed combining and condensing data from the scrutinized articles. This was achieved through forming subthemes and comparing them and searching for patterns and regularities across various studies. The findings were organized into two main categories: realistic GSCM success stories and key issues in the implementation of GSCM in HEIs [8].

Data and Tables

The data obtained from the review of the scientific literature were analyzed quantitatively: the obtained results were tabularized, which facilitated the presentation of results in concise and easily digestible forms.

Table 1: Successful GSCM Practices in HEIs

Practice	Description	Examples
Sustainable Procurement	Adoption of green procurement policies and practices to source environmentally friendly products.	University of California's Green Procurement Guidelines.
Waste Management	Implementation of comprehensive waste reduction, recycling, and composting programs.	Stanford University's Zero Waste Program.
Energy Efficiency Initiatives	Deployment of energy-efficient technologies and renewable energy sources to reduce energy consumption.	MIT

Detailed Analysis

● Sustainable Procurement: Several of the HEIs are in the process of starting or already practicing the consideration and inclusion of sustainability into procurement. University in particular, University of California has developed green procurement policies which ensures green products are procured. Such guidelines may include requirements specific to energy consumption per area or per user, the reusability of materials, and the prohibition of hazardous substances in producing building materials [9]. This change of paradigm in procurement also contributes to relatively less detrimental influence on the environment but also fosters competition among various vendors and partners by establishing a benchmark of sustainable practises.

● Waste Management: The key strategies in promoting the environmental efficiency of HEIs include optimal waste management measures. Institutions such as The Zero Waste program at Stanford University have recorded success by employing the recycling, composting, and waste reduction frameworks symbolizing a huge victory. Typically, it may utilize the whole campus featuring different programs to encourage recycling and discourage the use of single-use plastics [10].

● Energy Efficiency Initiatives: Most institutions are incorporating energy efficient technologies in their infrastructure so as to minimize the use of energy. Many establishments have stepped up their efforts in using energy saving measures and these include putting in place solar power or efficient lighting such as those used at MIT. They also help to cut-on energy expenses and therefore assist the institution to meet its sustainable goals.

● Stakeholder Engagement: Students, faculty, and staff are essential players to address the GSCM practices since they contribute to the identification of solution sources and the definition of the best practices for adoption in the organization [11]. There is a concrete commitment to stakeholder engagement within institutions of learning such as Harvard University, where there are set committees for sustainability, educational programs, and participatory decision making. Transacting business in this manner promotes sustainability as every sub-sector of the community is brought on board with the institution's environmental goals.

● Challenges in Implementing GSCM: However, the following challenges are the key factors that discouraged the implementation of GSCM practices in HEIs. Funding is one of the key challenges, a factor made worse by the fact that most of the small colleges and universities that are in a worse position as far as the financial resources are concerned [12]. One of the greatest disadvantages of technology is that it is very expensive to adopt green technologies in the first place. Secondly, there is poor awareness and poor implementation of GSCM principles in staff and students and this is due to deficiency in environmental education especially in developing regions.

Another crucial problem is often the resistance change inside institutions. Solar experiences cognitive lock-in, where people develop specific habits and ways of doing things that make it difficult to change them once they embrace a specific way of doing things [13]. Thus, there are constraints as the current older campus buildings may lack the necessary infrastructures for integrating some of the developed technologies in GSCM.

Lastly, the lack of favourable policies and support at both institutional and governmental levels can be key challenges experienced. Largely, the degree of motivation to actively assimilate GSCM practices in contexts where HEIs are not subjected to considerably stringent environmental benchmarks may not be high.

Challenge	Description	Examples
Financial Constraints	Limited budgets and high upfront costs associated with green technologies and sustainable practices.	Smaller colleges with limited funding.
Lack of Awareness	Insufficient knowledge and understanding of GSCM principles among staff and students.	Universities in developing countries.
Resistance to Change	Organizational inertia and reluctance to adopt new, sustainable practices and technologies.	Established institutions with traditional systems.
Inadequate Infrastructure	Existing infrastructure not conducive to implementing advanced GSCM practices.	Older campus buildings with outdated systems.
Regulatory and Policy Barriers	Absence of supportive policies and regulations at the institutional or governmental level.	Regions without environmental mandates for HEIs.

IV. EXPERIMENTS

This section gives an account of study done on Green Supply Chain Management (GSCM) practices in Higher Educational Institutions (HEIs). It presents the results under broad categories of sustainable procurement, management of wastes, efforts towards energy efficiency and actions that involve stakeholders. Moreover, it presents obstacles encountered by HEIs in the implementation of GSCM and also provides information on how they may be overcome [14].

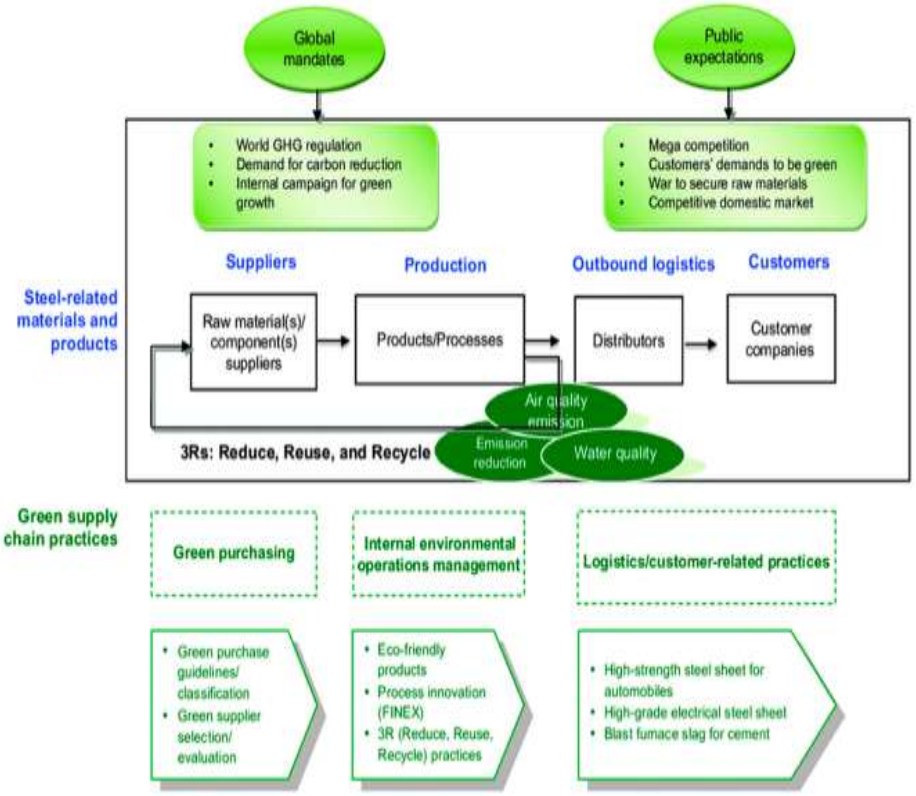

Figure 1: Green Supply Chain Management Practices on the Environmental Performance

Sustainable Procurement

The study shows sustainable procurement as an important implementation of GSCM in HEIs. Businesses that have adopted sustainable procurement practices have technically enjoyed some benefits which include the conservation of the environment and institutional image.

Institution	Practice	Impact
University of California	Green Procurement Guidelines	Reduction in harmful chemicals and increase in recycled content
Yale University	Sustainable Sourcing Policy	Increased procurement of sustainable goods and services
University of Michigan	Environmentally Preferable Purchasing (EPP)	Significant reduction in carbon footprint and waste

As to the green procurement, UiC's Green Procurement Guidelines state that priority should be given to items with lower toxicity and with a higher recycled content. Similarly, due to Yale University's commitment to the sustainable sourcing policy, the university prefers to buy products and services that support a sustainable supply chain [27]. The EPP program in the UM has paid attention to the process of purchasing goods with minimal effects on the environment, making a big impact on the reduction of carbon footprint elimination of waste.

Not only do such practices help reduce our negative impact on the physical environment, but they also become teaching aids illustrating the need for sustainable decision-making to students and other members of the staff. Nevertheless, several factors can enhance sustainable procurement in institution namely; The support of all the levels of the institution and solid procurement policy.

Figure 2: Green Supply Chain Management (GSCM) Performance

Waste Management

Efficient waste disposal is also one of the elements within GSCM explored in HEIs. A number of facilities utilizing best practice waste management measures have some of the lowest waste generation levels and highest recycling rates.

Institution	Initiative	Outcome
Stanford University	Zero Waste Program	Diverted 80% of waste from landfills
University of British Columbia	Comprehensive Recycling Program	Increased recycling rate to 67%
Arizona State University	Waste Reduction Campaign	Reduced waste generation by 30%

The Zero Waste Program is a project of Stanford University that seeks to facilitate the complete elimination of waste that ends up in garbage bins, by promoting the practices of recycling, composting, and waste minimization strategies. UBC has a very extended recycling program; the recycling rate on the campus has improved through practicing proper recycling While Arizona State University conducted a waste reduction campaign that has helped reduce the generation of wastes produced.

These measures show the necessity of the established waste management plan and efficient strategies implementation. Apart from directly minimizing the HEIs environmental footprint, proper waste management also engages and empowers the campus population regarding sustainable practices [28]. Concerns like, the initial expenses that are required for implementing these measures, and the fact that the stakeholders have to be consistently trained and engaged are some of the concerns that must be met for sustaining these efforts.

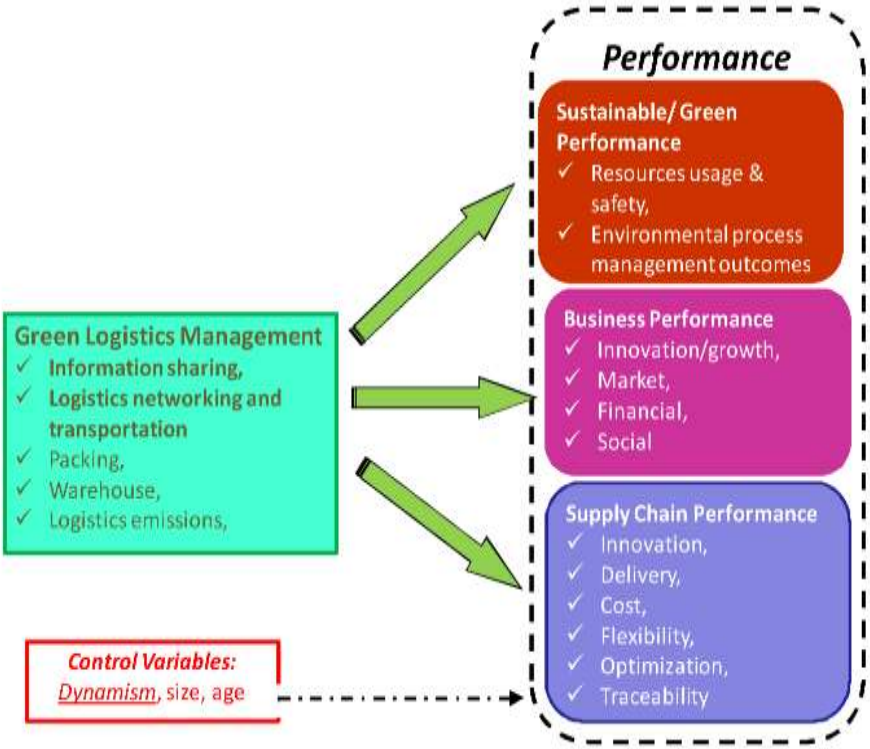

Figure 3: Green Logistics Management on Sustainable Business and Supply Chain Performance

Energy Efficiency Initiatives

Promotion of energy efficient practices is also one of the thrusts identified by GSCM in HEIs. Companies are focusing on purchasing renewable power and cutting production costs through utilizing more efficient energy equipment.

Institution	Initiative	Impact
Massachusetts Institute of Technology (MIT)	Solar Panel Installation	Reduced energy costs by 25%
University of Cambridge	LED Lighting Retrofit	Energy consumption reduced by 15%
University of Tokyo	Smart Building Technologies	Improved energy management and reduced energy usage by 20%

MIT solar panels retrofit has improved the energy cost factor in the institute and University of Cambridge LED lighting retrofit project has saved a considerable amount on energy expenses. This paper used a case to establish that the University of Tokyo has been able to improve the energy management and consequently use of energy through implementation of smart building technologies.

Such measures and programmes show indeed that it is possible to achieve considerable energy and costs savings by using energy efficient technologies. But the process of building such structures may be costly and, therefore, is a challenge to some institutions [29]. Thus, prioritization of the funding and ensuring value in the long term is crucial to the optimal implementation of the energy efficiency standards.

Stakeholder Engagement

Therefore, the involvement of stakeholders in the process of implementing GSCM practices can be considered a necessity. Recent studies have revealed that institutions which engage students, faculty members and staff in sustainability initiatives spearheaded by the GSCM have recorded higher involvement and dedication to efforts in this area.

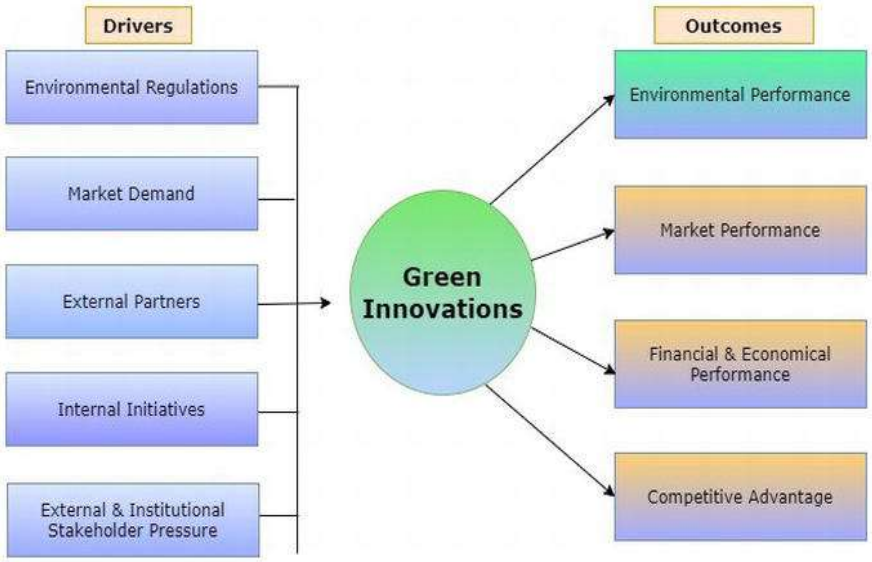

Figure 4: Green Transportation in Green Supply Chain

Lack of funds is one major challenge but more so, institutions which might be needing such services would rarely have adequate fund. The capital-intensive framework of many green technologies can be relatively costly initially. Another challenge is the relative ignorance as well as appreciation of the GSCM principles among the staffs and students especially where there is weak environmental education of those countries [30]. Culture and organizational politics may slow down the process of implementing new practices because institutions and organizations, especially those that are large and/or old, may have well-developed structures, bureaucracies, and/or policies that can hinder change.

Original campus facilities may contain insufficient amenities for integrating progressive procedures in GSCM practices. Last are the unsupportive institutional and government policies and regulations as barriers inhibiting GSCM implementation.

V. CONCLUSION

Based on the systematic literature review of GSCM studies on HEIs, it is evident that there has been enhancement in the implementation of sustainability in the supply chain management of education institutions. Areas including sustainable procurement, waste management, energy efficiency especially when working with stakeholders has indicated significant advantages inclusive of saving on costs and lowering one's negative effect on the physical surroundings. However, when it comes to applying GSCM in HEIs several

challenges are encountered. Some of the challenges that have been experienced in implementing m-Health include financial constraints, lack of awareness, resistance to changes, inadequate infrastructure, and regulatory barriers must be fronted as important challenges that deserve attention. Successful coping mechanisms include application of adequate resource mobilization not only limiting to grants and donations but exploring for other sources, awareness creation through undertakements of multisectoral education programme, implementation of good change management techniques, D occupying infrastructural development to enhance practice sustainability, and policy bans/ encouragements. Furthermore, GHM and innovation is another important factor that can also be associated with sustainable development within HEIs. As for the future research directions the following topics can be mentioned: Longitudinal research to evaluate the long-term consequences of GSCM practices; cross-country research to investigate differences in the nature and intensity of GS practices in different regions of the world; research addressing the impact of new technologies on GS management; research concerning more effective models of engaging stakeholders. Through these areas, HEIs can improve the efficiency of their GSCM efforts with the goal of achieving the greatest level of sustainability on a global level. It offers suggestions that would be useful to all the players most importantly the HEI administrators, the policymakers and the researchers in regards to GSCM commitment, education, and innovation. HEIs as key institutions that train future professionals and ensure dissemination of norms for behavior, their involvement in GSCM will contribute not only to the enhancement of the HEI performance indicators, but will also bring about wider cultural shifts toward environmental responsibility and sustainability in the society.

REFERENCE

1. Value for money in public procurement: Experience from Zimbabwe's rural district councils. 2023/12//. Cogent Social Sciences, 9(2),
2. AGYABENG-MENSAH, Y., AFUM, E., INNOCENT SENYO, K.A. and BAAH, C., 2023. How does supply chain knowledge enhance green innovation? The mediation mechanisms of corporate reputation and non-supply chain learning. The Journal of Business & Industrial Marketing, 38(4), pp. 852-868.
3. AHMED MOSTAFA, M.Y., MOHAMED, A.H. and HEBATALLAH, M.E., 2022. Key elements of green supply chain management drivers and barriers empirical study of solar energy companies in South Egypt. International Journal of Energy Sector Management, 16(3), pp. 564-584.
4. AINI, F., IRIANTO, A. and AMAR, S., 2023///Autumn. Sustainable development model toward environmentally friendly hospital. Global Journal of Environmental Science and Management, suppl.Special Issue (Eco-Friendly Sustainable Management), 9, pp. 61-76.
5. ALI, Q.M., NISAR, Q.A., ABIDIN, R.Z.U., QAMMAR, R. and ABBASS, K., 2023/12//. Greening the workforce in higher educational institutions: The pursuance of environmental performance. Environmental Science and Pollution Research, 30(60), pp. 124474-124487.
6. ALKHWALDI, A.F., 2024. Investigating the Social Sustainability of Immersive Virtual Technologies in Higher Educational Institutions: Students' Perceptions toward Metaverse Technology. Sustainability, 16(2), pp. 934.
7. AMJAD, A., ABBASS, K., HUSSAIN, Y., KHAN, F. and SADIQ, S., 2022/09//. Effects of the green supply chain management practices on firm performance and sustainable development. Environmental Science and Pollution Research, 29(44), pp. 66622-66639.
8. BADAWOOD, A., 2021. Supply Chain Management in Higher Education: A Conceptual Model within COVID-19 Outbreak, Building a Proposed Conceptual Model. International Journal of Emerging Technologies in Learning (Online), 16(13), pp. 201-211.
9. CHEE, K.Y. and KHALID AWADH AL-MUTAIRI, 2024. A Conceptual Model Relationship between Industry 4.0—Food-Agriculture Nexus and Agroecosystem: A Literature Review and Knowledge Gaps. Foods, 13(1), pp. 150.
10. CHEN, S., HOU, Y., ZHANG, Y., YAO, Z., SHEN, X., CAO, L., YANG, H., WANG, X., GUI, F., CHENG, J. and HUANG, Q., 2024. The Multilevel Chain Mediating Mechanism of College Faculty's Felt Responsibility on Students' Engagement in Green Building Learning. Buildings, 14(3), pp. 659.
11. CHRISTOU, O., MANOU, D.B., ARMENIA, S., FRANCO, E., BLOUCHOUTZI, A. and PAPATHANASIOU, J., 2024. Fostering a Whole-Institution Approach to Sustainability through Systems Thinking: An Analysis of the State-of-the-Art in Sustainability Integration in Higher Education Institutions. Sustainability, 16(6), pp. 2508.
12. DAHININE, B., LAGHOUAG, A., BENSAHEL, W., ALSOLAMI, M. and GUENDOUZ, T., 2024. Modelling the Combined Effect of Green Leadership and Human Resource Management in Moving to Green Supply Chain Performance Enhancement in Saudi Arabia. Sustainability, 16(10), pp. 3953.
13. DEHTJARE, J. and UZULE, K., 2023. Sustainable Higher Education Management: Career Drivers of Academic Staff. Journal of Teacher Education for Sustainability, 25(2), pp. 89-105.
14. DZIUBANIUK, O., IVANOVA-GONGNE, M. and NYHOLM, M., 2023/12//. Learning and teaching sustainable business in the digital era: a connectivism theory approach: Revista de Universidad y Sociedad del Conocimiento. International Journal of Educational Technology in Higher Education, 20(1), pp. 20.

15. EL-AWADY ATTIA and MD, S.U., 2024. Hybrid Assessment for Strengthening Supply Chain Resilience and Sustainability: A Comprehensive Analysis. Sustainability, 16(10), pp. 4010.
16. FAHEEM, A., NAWAZ, Z., AHMED, M., HADDAD, H. and NIDAL MAHMOUD AL-RAMAHI, 2024. Past Trends and Future Directions in Green Human Resource Management and Green Innovation: A Bibliometric Analysis. Sustainability, 16(1), pp. 133.
17. GIUREA, R., CARNEVALE MIINO, M., TORRETTA, V. and RADA, E.C., 2024/03/01/. Approaching sustainability and circularity along waste management systems in universities: an overview and proposal of good practices. Frontiers in Environmental Science, .
18. HABEEB, Y.O. and SERIFE, Z.E., 2024. Strategic Planning, Transformational Leadership and Organization Performance: Driving Forces for Sustainability in Higher Education in Nigeria. Sustainability, 16(11), pp. 4348.
19. HAMMODA, B., 2024. The impact of educational technologies on entrepreneurial competencies: A systematic review of empirical evidence. Knowledge Management & E-Learning, 16(2), pp. 309-333.
20. HAREER, F.A., HOSSEINIAN-FAR, A., SARWAR, D. and KHANDAN, R., 2024. Supply Chain Complexity and Its Impact on Knowledge Transfer: Incorporating Sustainable Supply Chain Practices in Food Supply Chain Networks. Logistics, 8(1), pp. 5.
21. HUANG, X., HE, J. and LI, Z., 2023/07//. Internal incentives for carbon emission reduction in a capital-constrained supply chain: A financial perspective. PLoS One, 18(7),.
22. JAGANJAC, J., NIKOLIĆ, J.L. and LAZAREVIĆ, S., 2024. The importance of green human resource management practices for sustainable organizational development: Evidence from Serbia and Bosnia and Herzegovina. Journal of East European Management Studies, 29(1), pp. 157.
23. KA, Y.C., MANH, P.H., CHEN-HSIEN, L., NGO, T.Q., THI THU, H.P. and PHAM, Q.H., 2023/12//. The impact of economic and non-economic determinants on circular economy in Vietnam: A perspective of sustainable supply chain management. Technological and Economic Development of Economy, 29(6), pp. 1587-1610.
24. KANAN, M., TAHA, B., SALEH, Y., ALSAYED, M., ASSAF, R., MOHAMED, B.H., ALSHAIBANI, E., BAKIR, A. and TUNSI, W., 2023. Green Innovation as a Mediator between Green Human Resource Management Practices and Sustainable Performance in Palestinian Manufacturing Industries. Sustainability, 15(2), pp. 1077.
25. LIN, L., 2024. Strategic Integration of Digital Health and Biotechnological Innovations in Health Education Evaluation at Higher Education Institutions: Research and Regulation. Journal of Commercial Biotechnology, 29(1), pp. 32-328.
26. MADANI, B., SAIHI, A. and ABDELFATAH, A., 2024. A Systematic Review of Sustainable Supply Chain Network Design: Optimization Approaches and Research Trends. Sustainability, 16(8), pp. 3226.
27. MAHDY, F., ALQAHTANI, M. and BINZAFRAH, F., 2023. Imperatives, Benefits, and Initiatives of Green Human Resource Management (GHRM): A Systematic Literature Review. Sustainability, 15(6), pp. 4866.
28. MAPANGA, A., 2024. Rethinking competency requirements in South African supply chain management. Journal of Transport and Supply Chain Management, 18.
29. NAFEESA, S. and JOE, H., 2024/01//. Effectiveness of green entrepreneurship practices in driving the growth of Indian small and medium-sized enterprises. Indian Journal of Commerce and Management Studies, 15(1), pp. 1-9.
30. NAZIR, S., LI, Z., MEHMOOD, S. and NAZIR, Z., 2024. Impact of Green Supply Chain Management Practices on the Environmental Performance of Manufacturing Firms Considering Institutional Pressure as a Moderator. Sustainability, 16(6), pp. 2278.