

FOCUSING ON THE CHALLENGES OF FULFILLING GSCM IN THE FOOD PROCESSING INDUSTRIES

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ABSTRACT

This paper aims to highlight the challenges of fulfilling the green supply chain practices (GSCM) in the food processing industries to reveal new knowledge and deep insights. This investigation analysis has been conducted across Indian regions. The snowball method is used to select the respondents for sampling. A structured questionnaire has been prepared to collect data for analysis. Respondents of around 155 personnel working across the food industry in various functions. Further percentage analysis was deployed to detect the concerns and confronts of respondents throughout the implementation of the GSCM practices, particularly in the food industry. Simple Analysis of variance method deployed, and results interpreted to reveal insights. There are many challenges while practicing GSCM, though, this study predominantly centers on the challenges of executing GSCM in the food processing industries. The learning consequences reveal that a significant difference exists in challenges faced while adopting green supply chain management (H1 accepted) where no significant difference exists between the GSCM (H0 – Null Hypothesis can't be rejected as tasters are not statistically substantial to discard the null hypothesis explained by research insights through ANOVA results. Even though the challenges persist during adopting GSCM it is inevitable to move forward to revive & retain the environment for future generations to ensure their livelihood.

Key Words: Green Supply Chain Management; Food Industry; Sustainability

1. INTRODUCTION

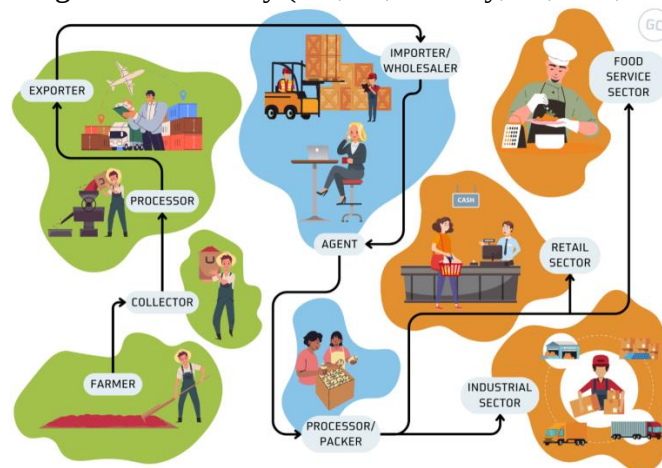
Dynamic Capabilities (DCs) and Sustainable Supply Chain Management (SSCM) are two relatively new study areas that look at dynamically shifting industries and organisational contexts. One example of such a dynamic environment is the food sector. Few studies explaining how the application of dynamic capabilities in SSCM processes (Beske, P., Land, A., & Seuring, S., 2014). Consequently, this industry ranks among the sectors with the largest greenhouse gas radiations in the world by considerable effects it has happening in atmosphere, society, and economy. Another study attempts to pinpoint sustainable policies and procedures that food sector groups are using. The findings classify the well-known research in this field and emphasise the crucial procedures and measurements found (Neves, T., Droghda, E., Da Costa, S. E. G., & De Lima, E. P., 2014). In addition to the usual parameters of cost, lead time, and on-time delivery, SCM also takes environmental implications, including into account. The eco-efficiency of many items is influenced by decision process. Another article examines food business situations from a green perspective, focusing on order-picking, shipping, warehousing, and distribution factors. We look at three case studies of choices made in the food industry's supply chain design. Dependencies between key indicators are manifest in the results. Lastly, a decision-making framework is shown, along with how it affects performance (Ala-Harja, H., & Helo, P., 2015).

2. LITERATURE REVIEW

The Impact of GSCM on Organisational Performance: A Study on Jordanian Nutrition Industries is the subject of another investigation. The views of GSCM methods served as the foundation for the researcher's model and hypothesis construction. Findings of a study demonstrated the impact of GSCM techniques and components on the effectiveness of organisations. There are two types of consequences for this study: management and intellectual. It covers all phases of GSCM, including financial, operational, and ecological recital as it relates to organisational performance. The study's recommendation might be crucial for managers and businesses in helping them comprehend GSCM

An increasing number of businesses are deliberately including social and environmental factors in their buying procedures. Because of concerns about environmental sustainability and the consequences of climate change, many organisations have turned to GSCM methods as a tool for policy. Additionally, research looked into how Kenyan food and beverage companies' competitiveness was affected by GSCM strategies. The research was further directed by particular goals, such as determining the impact of environmentally friendly production, distribution, and procurement practices on manufacturing companies operating in Kenya's food and beverage industry. Likewise, it exposed that the acceptance of GSC methods increases the competitiveness of food and beverage companies by improving operational efficiency, growing their client base, providing better services, lowering waste levels, and improving fiscal recital. The study came to the conclusion that implementing GSCM techniques may benefit food and beverage companies and should be incorporated into their long-term strategy to provide them with a aggressive threshold over rivals. Given that the potential benefits of a GSC outweigh the initial and ongoing costs of implementation, it is thus advised that organisations give the practice serious consideration (Onyinkwa, C., & Ochiri, G., 2016).

Another piece of research examines how UK food retail medium-sized and small firms (SMEs) perform in relation to (GSCM) methods. The claim that ID impacts GSCM behaviours is substantially confirmed by empirical evidence; however, there is no discernible association between EP and GSCM practices. The work contributes to the advancement of current SCM and organisational performance ideas. Practically speaking, the study should assist SMEs in implementing GSCM techniques, which will contribute to the greening of the economy (Ali, A., Bentley, Y., Cao, G., & Habib, F., 2017).



Source: Globally Cool, 2023.

In addition to assessing the influence of SCM on organisational performance (OP), some studies focus on the relationship between knowledge management capabilities (KMCs) and supply chain management practices (SCMP) in businesses. It is indicated that KMCs have a favourable impact on SCMP. Furthermore, KMCs and SCMP possess an absolute effect on OP. A conceptual model developed in the investigation ensued and tested in the food sector of Saudi Arabia. The results suggest that KMCs and SCMPs will both help to enhance the OP. KMCs will also make the SCMP better (Attia, A., & Salama, I., 2018).

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drivers included factors such as government, cost, customer, supplier, and energy consumption reduction; and product processing and recycling factors included factors such as society, product end-of-life processing, eco-designed products, and ISO certification (Alhamali, R. M., 2019).

Research and focus on greening company practices and efforts have increased worldwide. This is for the reason that firms are underneath tension commencing equally inner and outer stakeholders. South African beverage industry also aimed to contribute to the empirical research connected to these effects. The findings showed that supply chain performance and environmental performance may be greatly impacted by GSCM techniques (Chinomona, E., & Mahlatsi, M. K., 2020).

A study from Thailand focuses on the levels of organisational performance (ORP), operational performance (OPP), environmental performance (ENP), (GSCMP), along with the interactions between GSCMP, ENP, OPP, and ORP within the framework of Thai seafood manufacturers. The results showed that the GSCMP, ENP, OPP, and ORP levels were quite high. Furthermore, GSCMP positively impacted ENP and OPP directly and positively impacted OPP and ORP indirectly through the mediation of ENP and OPP, respectively. Additionally, ENP positively impacted OPP directly and positively impacted ORP indirectly through OPP's mediation (Pintuma, S., & Aunyawong, W., 2021).

Companies aim to use GSCM techniques to decrease the effect of their operations on the atmosphere. One of the biggest sectors in the world, the food processing sector produces a lot of litter& releases greenhouse gases, which raises environmental concerns. For the reason that of the extending digit of environmental problems, GSCM has lately acquired popularity in developing nations like India. Another piece of research looks into the GSCM techniques that Indian food processing companies have implemented and how they affect long-term performance. The findings emphasise how crucial GSCM procedures are to achieving sustainability. The results demonstrate and corroborate that using GSCM procedures enhances the long-term performance of the companies (Durgaprasad, A. V. S., & Prasad, C. V., 2022).

GSCM has proven to be essential in a number of industries, including lodging and hospitality. Furthermore, without using GSCM, organisations cannot become environmentally sustainable. Due to the intricate character of the management relationships with the many stakeholders, implementing GSCM is particularly difficult. To achieve the desired management outcomes, all relevant parties must cooperate and provide the necessary assistance. A further investigation examined the intricate functions and connections between GSCM and the hospitality sector, pinpointing the primary obstacles that may arise. This study showed that GSCM interferences and relations can be categorised into six main areas (performance, related management, external and internal stakeholders, the 4Rs, innovation and technology, and environmental stakeholders); that GSCM is important beyond environmental goals; and that there are several major obstacles related to the hotel industry that should be taken into account before implementing GSCM practices (Alreahi, M., Bujdosó, Z., Dávid, L. D., & Gyenge, B., 2023).

Growing complexity has altered the dynamics of supply chain networks. Businesses benefit from global expansion and information sharing via supply chain networks, which increase productivity and efficacy. Nonetheless, there is also evidence of a growing likelihood of supply chain complexity. As they affect how businesses operate, the obstacles to sustainable supply chain networks must be effectively addressed. The study's conclusions demonstrate how process complexity affects knowledge transmission in food supply chain networks in a big way (Ahmed, H. F., Hosseinian-Far, A., Sarwar, D., & Khandan, R., 2024).

A study looked at the more subtle impacts of GSCM on the perception of company accomplishment in the fast-food restaurant sector in Quetta, Pakistan. These practices included eco-friendly production, distribution, purchasing, and reverse logistics. The study's empirical results highlight the critical role that GSCM procedures play in considerably raising the perceived performance of fast-food outlets. Furthermore, the analysis shows that, contingent on the proportions of the restaurant, there is a noticeable variation in the impact of GSCM on perceived firm performance. Importantly, bigger organisations exhibit a more marked accumulation of advantages from the integration of GSCM

methods into their operational frameworks (Ullah, S., Bano, S., Zehri, A. W., Khawajakhail, S., & Baloch, M. S., 2024).

3. RESEARCH GAPS

The previous study looked at the ideology of GSCM in the food sector. However, percentage analysis based on respondents' views from the Indian perspective is not discussed in detail. This paper aims to concentrate on the challenges of executing green supply chain practices in the food processing industries to reveal new knowledge and deep insights.

4. OBJECTIVES OF THE STUDY

- i) To identify the challenges of executing GSCM in the food processing industries.
- ii) To identify the analysis of variance between challenges of implementing green supply chain management concerning the adaptation of GSCM practices.

5. RESEARCH METHODOLOGY

This investigation has been conducted across Indian regions. The snowball sampling method is used to select the respondents. Questionnaire used to collect data for analysis is structured to ensure unbiased situation. Respondents selected around 155 personnel working across the food industry in various functions. Further percentage analysis was deployed to find the concerns and encounters of respondents throughout the enactment the GSCM practices, particularly in the food industry. Simple Analysis of variance method deployed, and results interpreted to reveal insights.

6. RESULTS SUMMARY

Table 1. Demographic Information

Profile of the Respondents	Respondent (N = 155)	Percentage
Gender		
Male	88	56.8%
Female	67	43.2%
Total	155	100.0%
Business Profile		
Hotels / Restaurants	19	12.3%
Food Packaging Industry	33	21.3%
Processed food supplier	30	19.4%
Argo industry	19	12.3%
Cottage industry- Small Scale business	54	34.8%
Total	155	100.0%
Educational Experience		
Diploma	62	40.0%
Degree	55	35.5%
Not educated	12	7.7%
School level only	26	16.8%
Total	155	100.0%
Experience Level in Food Industry		
0-5 years	28	18.1%
5-10 years	48	31.0%
10 to15 years	36	23.2%
More than 15 years	43	27.7%
Total	155	100.0%

Table 1 has the set of demographic information of respondents indicating gender profile, experience level, functional role and education level of the participants along with the % percentage of distribution concerning N number of participants.

Table 2. Respondent Opines on GSCM

GSCM Practices Adopted	Respondent (N = 155)	Percentage
Adopting recycling of food	24	15.5%
reducing the food waste / zero waste policy	25	16.1%
organic packing materials	35	22.6%
Utilizing EV for transportation	16	10.3%
electronic billing / paperless transaction	19	12.3%
adopting Effluent water treatment	15	9.7%
partnering/outsourcing with eco-friendly suppliers	21	13.5%
Total	155	100.0%
Challenges while Accepting GSCM		
Loss on profit	14	9.0%
operation expenditure increase	38	24.5%
Lack of supplier willing to adopt	15	9.7%
Increase in cost of raw materials	30	19.4%
pressure from statutory regulations	33	21.3%
Impacting the free cash flow	13	8.4%
customer regrets / unwillingness of customer	12	7.7%
Total	155	100.0%
GSCM Affecting Business Profitability		
Low	33	21.3%
medium	82	52.9%
high	16	10.3%
very high	24	15.5%
Total	155	100.0%
GSCM Acceptance Willingness		
1- Not at all	55	35.5%
2- some what	22	14.2%
3- likely	63	40.6%
4- surely	15	9.7%
Total	155	100.0%

Table 2 indicates the opinions of respondents on GSCM practices Adopted, challenges while adopting GSCM, GSCM affecting business profitability and GSCM Adoption Willingness along with percentage.

Table 3. Respondent Opines on GSCM towards Sustainability

GSCM Vs Long-Term Sustainability Improvement	Respondent (N =155)	Percentage
1- Not at all	40	25.8%
2- some what	45	29.0%
3- likely	28	18.1%
4- surely	42	27.1%
Total	155	100.0%
Suppliers' Willingness on Opting for GSCM		
1-poor	52	33.5%
2-average	51	32.9%
3-good	27	17.4%
4-excellent	25	16.1%
Total	155	100.0%

Table 3 indicates the respondents' opines on GSCM Vs long-term sustainability improvement, suppliers' willingness to opt for GSCM along with percentage.

6.2 ANOVA (ANALYSIS OF VARIANCE) ANALYSIS

Table 4 - Challenges Facing while Adopting GSCM Versus GSCM practices.

challenges facing while adopting GSCM (Factor - A)	Factor - B - GSCM Practices						
	Adoptin g recycling of food	reducin g the food waste / zero waste policy	organic packing material s	using electric vehicles for transportatio n	electronic billing / paperless transactio n	adopting Effluent water treatmen t	Partnering/ outsourcin g with eco friendly suppliers
Loss on profit	3	2	4	1	2	1	1
operation expenditure increase	4	6	4	2	4	3	15
Lack of supplier willing to adopt	2	3	4	2	2	1	1
Increase in cost of raw materials	5	7	10	4	3	1	0
pressure from statutory regulations	4	5	4	5	4	7	4
Impacting the free cash flow	3	2	4	0	4	0	0
customer regrets / unwillingness of customer	3	0	5	2	0	2	0

Table 4 indicates challenges faced while adopting GSCM Versus GSCM practices and Table 5 indicates the ANOVA results.

TABLE 5. ANOVA RESULTS

Source	DF	Sum of Square (SS)	Mean Square (MS)	F Statistic (df ₁ , df ₂)	P-Value
Factor A - rows (A)	6	104.9796	17.4966	2.9688 (6,36)	0.01851
Factor B - columns (B)	6	39.551	6.5918	1.1185 (6,36)	0.3711
Error	36	212.1633	5.8934		
Total	48	356.6939	7.4311		

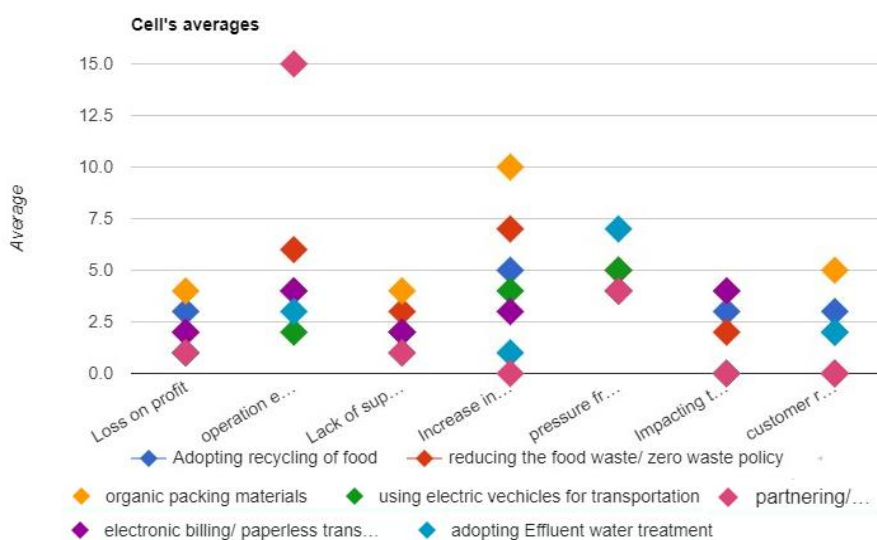


Figure 2 – Cell's Average – GSCM Practices

Two Sample ANOVA - fixed-test, using F distribution (Balanced Design)

Figure 2 indicates the cell's average and Figure 3 indicates the degree of freedom distribution whereas Figure 4 – Q-Q plots sample Vs normal theoretical quantities.

Factor – A: H₀ hypothesis. Since the p-value < α, H₀ is rejected. Some of the groups' averages consider to be non-equal. In other words, the sample change linking the averages of some groups is big enough to be statistically significant.

P-value: The p-value equals 0.01851, (P(x≤2.9688) = 0.9815). It means that the chance of type I error (rejecting a correct H₀) is small: 0.01851 (1.85%). The smaller the p-value the more it supports H₁.

Test statistic: The test statistic FA equals 2.9688, which is not in the 95% region of acceptance: [0, 2.3638].

Effect size: The observed effect size η² is large, 0.33. This indicates that the magnitude of the difference between the averages is large.

Factor – B: H₀ hypothesis: Since the p-value > α, H₀ cannot be rejected. The averages of all groups assume to be equal. In other words, the deviation between the test data averages of all groups is not big enough to be statistically significant. A non-significance result cannot prove that H₀ is correct, only that the null assumption cannot be rejected.

P-value: The p-value equals 0.3711, (P(x≤1.1185) = 0.6289). It means that the chance of type I error, rejecting a correct H₀, is too high: 0.3711 (37.11%). The larger the p-value the more it supports H₀.

Test statistic: The test statistic FB equals 1.1185, which is in the 95% region of acceptance: [0, 2.3638].

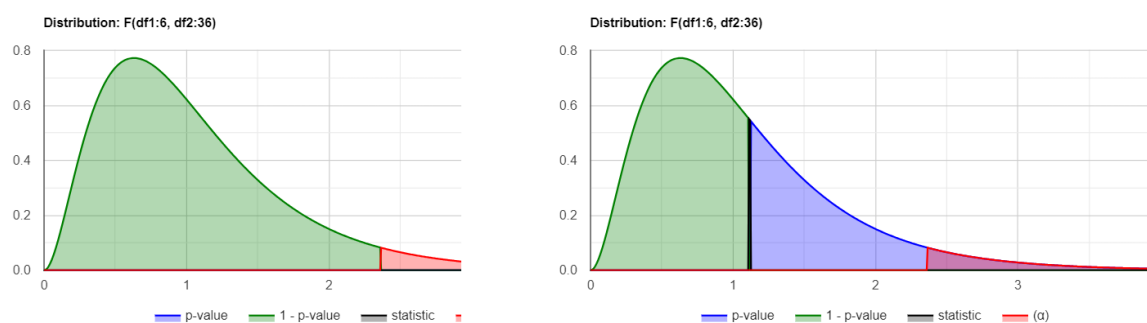


Figure 3 – Degrees of freedom distribution

Effect size: The observed effect size η^2 is large, 0.16. This indicates that the magnitude of the difference between the averages is large.

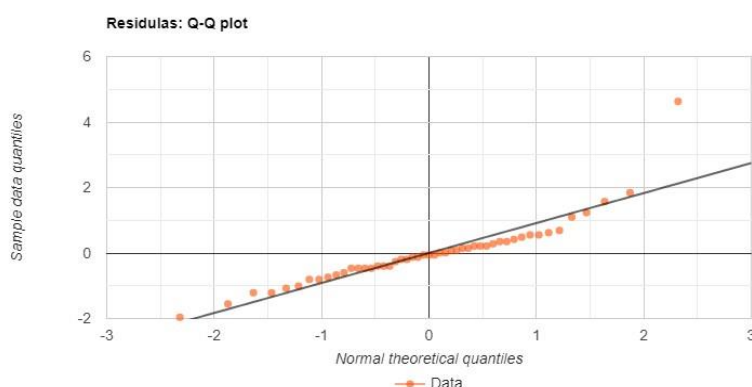


Figure 4 – Q-Q plots sample Vs normal theoretical quantities

7. DISCUSSION

Humans depend on the food sector, which has a significant influence on everyone in society. Sustainable development goal and the advent of new information and communication technology. They demand sustainable practices with the dual goals of meeting the sustainability requirement and enhancing the company's overall performance. Because it generally only examines at a portion of the chain, research on SSCM techniques in the food sector is rather dispersed. The work's consequences are pertinent to academic research since they add to the corpus of knowledge and emphasise important areas that require more exploration (Minardi, F., Botta-Genoulaz, V., & Mangano, G., 2021).

Another study looked at the function of green HRM in relation to business performance and the GSC which looked at the connections between lockdown, green SC, green HRM, and organization recital. Based on Bahrain's food business, the moderating function of lockdown and the facilitating role of green SC were investigated. The study's conclusions made apparent just how crucial green HRM is for businesses that produce food. It contributes positively to the improvement of Bahraini food supply firms' performance. Additionally, green SC is essential to the operation of food supply businesses. COVID-19, however, has a detrimental effect on business performance. These businesses' performance is negatively impacted by the COVID-19 lockout scenario (Alzgoool, M., Ahmed, U., Shah, S., Alkadash, T., & AlMaamary, Q., 2021).

Furthermore, a study tests an extensive model of GSCM practices empirically. It incorporates green supply chain orientation (GSCO) and green intellectual capital (GIC) as predictors of effective GSCM practice implementation and organisational performance as a result. The study's conclusions show that GIC and GSCO have a favourable effect on the use of GSCM techniques. Moreover, GSCM techniques enhance operational and financial performance, which enhances organisational performance (Maaz, M. A. M., Ahmad, R., & Abad, A., 2022).

SSCMPs are becoming increasingly important in terms of a company's financial performance.

Nonetheless, different industries and situations may have different effects of SSCMPs on financial performance. A thorough grasp of the effect of SSCMPs on the long-term financial viability of medium-sized and small-scale businesses (SMEs) in the food processing sector is offered by different research. In order to do this, research is done on the effects of lean supply chains, social SCMPs, sustainable environmental practices, and connections between suppliers and customers on the financial sustainability of SMEs that produce food. The study's conclusions showed that a variety of SSCMPs had a good and substantial impact on the financial sustainability of SMEs engaged in food processing and that lean supply chain practices also had a major impact (Mwenda, B., Israel, B., & Mahuwi, L., 2023).

One more study conducted in Bangkok, Thailand, looked at how food enterprises' sustainable performance and food quality assurance were affected by utilizing SSCM strategies. The empirical outcome of the examination displayed that the financial, environmental, and social performances of the organisations are positively impacted by both internal and external SSCM strategies. Quality assurance is positively impacted by sustainable performance metrics, which include environmental, financial, and social aspects. Additionally, the report offers suggestions for Thai food firms to use SSCM processes (Kuwornu, J. K., Khaipetch, J., Gunawan, E., Bannor, R. K., & Ho, T. D., 2023).

It's challenging to integrate sustainable practices into multi-tier supply chains (MTSCs). Different research looks into the reasons behind these kinds of attempts failing and how MTSC partners can deal with them. supply chain mapping, multi-tier cooperation and partnerships, diffusion of innovation along the chain, sustainability performance monitoring, and capacity building are the vital solutions that enhance sustainability practices (Oyedijo, A., Kusi-Sarpong, S., Mubarik, M. S., Khan, S. A., & Utulu, K., 2024).

8. CONCLUSIONS

Challenges exist in supply chain management practices; however, this finding specifically centers on the challenges of applying GSCM practices in the food processing industries. The learning consequences disclose that there is a significant difference in trials confronted although accepting GSCM (H1 accepted) where there is no significant difference exists between the GSCM practices (H0 – Null Hypothesis can't be rejected as tasters are not statistically noteworthy to discard the null hypothesis explained by research insights through ANOVA results. Even though the challenges persist during accepting green supply chain practices it is inevitable to move forward to revive & retain the environment for future generations to ensure their livelihood. With this concluding note, the foster setting for this research may be how to increase the profitability of the food business / sector along with practising GSCM practices with new technologies.

9. REFERENCES

- Ahmed, H. F., Hosseinian-Far, A., Sarwar, D., & 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), 5.
- Ala-Harja, H., & Helo, P. (2015). Reprint of "Green supply chain decisions–Case-based performance analysis from the food industry". *Transportation Research Part E: Logistics and Transportation Review*, 74, 11-21.
- Alhamali, R. M. (2019). Critical success factors for green supply chain management practices: An empirical study on data collected from food processing companies in Saudi Arabia. *African Journal of Business Management*, 13(5), 160-167.
- Ali, A., Bentley, Y., Cao, G., & Habib, F. (2017). Green supply chain management–food for thought?. *International Journal of Logistics Research and Applications*, 20(1), 22-38.
- Alreahi, M., Bujdoso, Z., Dávid, L. D., & Gyenge, B. (2023). Green supply chain management in hotel industry: A systematic review. *Sustainability*, 15(7), 5622.

- Alzgoool, M., Ahmed, U., Shah, S., Alkadash, T., & AlMaamary, Q. (2021). Going green during COVID-19: Examining the links between green HRM, green supply chain and firm performance in food Industry of Bahrain: The moderating role of lockdown due to COVID-19. *Uncertain Supply Chain Management*, 9(1), 79-88.
- Attia, A., & Salama, I. (2018). Knowledge management capability and supply chain management practices in the Saudi food industry. *Business Process Management Journal*, 24(2), 459-477.
- Beske, P., Land, A., & Seuring, S. (2014). Sustainable supply chain management practices and dynamic capabilities in the food industry: A critical analysis of the literature. *International journal of production economics*, 152, 131-143.
- Chinomona, E., & Mahlatsi, M. K. (2020). Green supply chain practices and supply chain performance in the beverage industry of South Africa. *Journal of Contemporary Management*, 17(2), 295-325.
- Diab, S. M., Al-Bourini, F. A., & Abu-Rumman, A. H. (2015). The impact of green supply chain management practices on organizational performance: a study of Jordanian food industries. *J. Mgmt. & Sustainability*, 5, 149.
- Durgaprasad, A. V. S., & Prasad, C. V. (2022). Green Supply Chain Management Practices: An Exploratory Study of Indian Food Processing Firms. *Journal of Management & Marketing Review (JMMR)*, 7(4).
- Kuwornu, J. K., Khaipetch, J., Gunawan, E., Bannor, R. K., & Ho, T. D. (2023). The adoption of sustainable supply chain management practices on performance and quality assurance of food companies. *Sustainable Futures*, 5, 100103.
- Maaz, M. A. M., Ahmad, R., & Abad, A. (2022). Antecedents and consequences of green supply chain management practices: a study of Indian food processing industry. *Benchmarking: An International Journal*, 29(7), 2045-2073.
- Minardi, F., Botta-Genoulaz, V., & Mangano, G. (2021). A Systematic Review of Sustainable Supply Chain Management Practices in Food Industry. In Smart and Sustainable Collaborative Networks 4.0: 22nd IFIP WG 5.5 Working Conference on Virtual Enterprises, PRO-VE 2021, Saint-Étienne, France, November 22–24, 2021, Proceedings 22 (pp. 19-30). Springer International Publishing.
- Mwenda, B., Israel, B., & Mahuwi, L. (2023). The influence of sustainable supply chain management practices on financial sustainability of food processing SMEs. *LBS Journal of Management & Research*, 21(2), 218-235.
- Neves, T., Drohomerski, E., Da Costa, S. E. G., & De Lima, E. P. (2014). Sustainable operations management: practices and measures in the food industry. *International Journal of Advanced Operations Management*, 6(4), 335-352.
- Onyinkwa, C., & Ochiri, G. (2016). Effects of Green Supply Chain Management Practices on Competitiveness of Firms in the Food and Beverage Sector in Kenya. *European Journal of Business and Management*, 8(14), 15-21.
- Oyedijo, A., Kusi-Sarpong, S., Mubarik, M. S., Khan, S. A., & Utulu, K. (2024). Multi-tier sustainable supply chain management: a case study of a global food retailer. *Supply Chain Management: An International Journal*, 29(1), 68-97.
- Pintuma, S., & Aunyawong, W. (2021). The effect of green supply chain management practices on environmental, operational and organizational performances of seafood manufacturers in Thailand. *International Journal of e-Business and e-Government Studies*, 13(2), 33-48.
- Ullah, S., Bano, S., Zehri, A. W., Khawajakhail, S., & Baloch, M. S. (2024). Flavours of Sustainability: Investigating the Impact of Green Supply Chain Practices on Fast-Food Businesses in Quetta. *Remittances Review*, 9(1)