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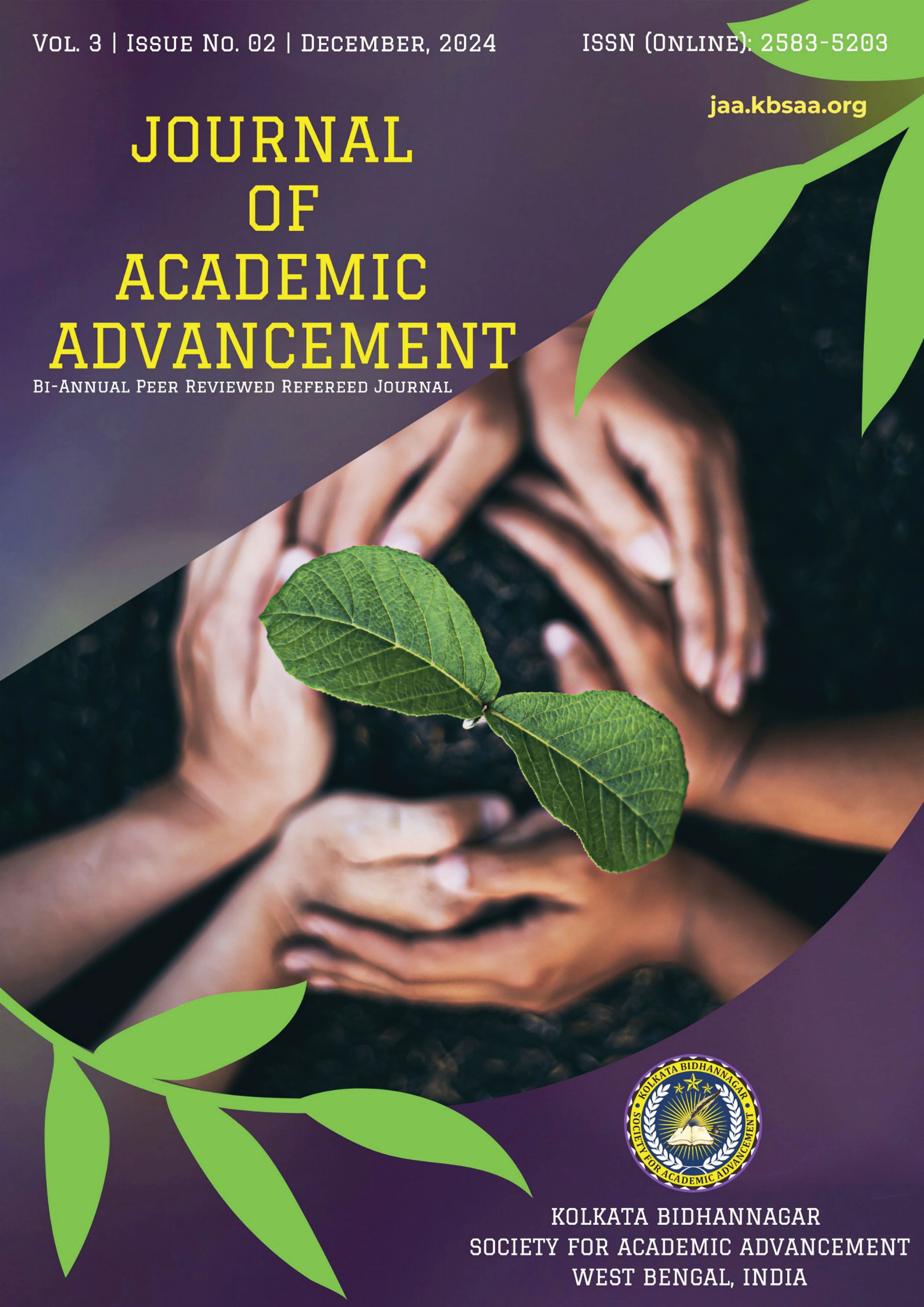

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EDITORIAL

We feel honoured and privileged to present the Bi-Annual Peer Reviewed Refereed Journal, ISSN (Online): 2583-5203, Volume 3, No. 02, December, 2024 among our esteemed readers and academic fraternity.

This Journal is the outcome of the contributions of insightful research-oriented papers/articles by various eminent academicians, and research scholars in a highly organized and lucid manner with a clear and detailed analysis related to the emerging areas in the fields of Social Sciences and Allied Areas.

The views expressed in the research-oriented papers/articles solely belong to the paper contributor(s). Neither the Publisher nor the Editor(s) in any way can be held responsible for any comments, views and opinions expressed by **paper contributors.** While editing, we put in a reasonable effort to ensure that no infringement of any intellectual property right is tolerated.

We also express our sincere thanks and gratitude to all the contributors to research papers/ articles who have taken pain in preparing manuscripts, incorporating reviewer(s) valuable suggestions and cooperating with us in every possible way.

We also express our heartfelt gratitude to all the esteemed members of the Editorial Board, Esteemed Reviewer(s) who despite their busy schedules have given their valuable time, suggestions and comments to enrich the quality of the contributory resears paper(s) in bringing to light this December issue.

Last, but not least, we revere the patronage and moral support extended by our parents and family members whose constant encouragement and cooperation made it possible for us to complete on time.

We would highly appreciate and look forward to your valuable suggestions, comments and feedback at **editorbr2022@gmail.com**

December 31, 2024
West Bengal, India

PEMA LAMA
Editor-in-Chief

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RESEARCH ARTICLE

The Conundrum of Climate Smart Supply Chain Management Practices in India: A Theoretical Overview

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ABSTRACT

Climate Smart Supply Chain Management (CSSCM) can be defined as the strategy of improving the 'performance of the process of flow of goods and services from business units to consumers' in keeping line with the environmental regulations of the place (Igarashi, 2013). It has helped a host of organizations in achieving a competitive advantage over their counterparts. However, a handful of researchers have also expressed concern over the cost-benefit of applying CSSCM techniques in the Indian scenario where traditional supply chain management techniques are deep-rooted.

The present research work uses the method of Structured Literature Review (SLR) to determine the existing trends in the functioning of CSSCM in India. It also tries to highlight the prevalent stages of the functioning of Climate Smart Supply Change Management in India. To address the gap in the cost-benefit analysis of adapting CSSCM, the research also provides an overview of the existing mechanisms of Performance Measurement of Climate Smart Supply Chain Management in India.

1. INTRODUCTION

The motive of Climate-smart supply chain management includes constricting the resultant waste of a production mechanism within the industrial setup to protect energy and in the process refrain from the release of hazardous materials into the environment (Dr. Arvind Jayant, 2017). Researchers in the past ten years have shown a substantial interest in the application of CSSCM models in business to achieve environmental sustainability (Srivastava, 2010). The existing literature on the subject also proves beyond doubt that the definition of eco-friendly supply chains has shifted from mere 'green supply chain management' to Climate Smart Supply chain Management. The significant difference between the two lies in the fact that when green supply Chain Management focuses only on using eco-friendly means of production, Climate Smart Supply Chain Management goes a step ahead in incorporating eco-friendly supply chains along with a greater focus on social, financial and economic consequences of the supply chain operations. In a nutshell, it can be said that CSSCM deliberates more on sustainability rather than eco-friendliness.

It must be understood that while eco-friendly supply chain management has its own cost, Climate-smart Supply Chain Management promotes more sustainability along with eco-friendliness. Thus the mechanisms of performance measurement of the

CSSCM are important as they will serve as a framework for the upcoming business in applying CSSCM and at the same time plan cost effectiveness and environmental sustainability simultaneously.

Multifarious types of research across the globe have suggested that Green Supply Chain Management contribute to a 'business' competitive advantage in a very unique way' (B. Sezen, 2013). Indian subcontinent with a hooping 1300million USD retail market cannot be an exception in reaping the benefit of CSSCM. This very aspect provides the impetus for finding the trend in adaptability of the sustainable supply chain management in the country. The overview of the scenario of the climate-smart supply chain management techniques is discussed in detail while addressing the objective of finding the prevalent stages of the functioning of Climate Smart Supply Change Management in India.

2. RESEARCH OBJECTIVES

The Research Objectives are as follows -

- To determine the existing trends in the functioning of Climate smart supply chain management in India.
- To find the prevalent stages of the functioning of Climate Smart Supply Change Management in India.
- To have an overview of the existing mechanisms of Performance Measurement of Climate Smart Supply Chain Management in India.

3. RESEARCH METHODOLOGY

The research involves the method of Structured Literature Review (SLR) in determining the scenario of Climate Smart Supply Chain Management practices in India. As per the structure given by the method the Research proceeds firstly with defining the Research Questions. It then analyzes the decides on the research sample and analyses the same and finally, the process ends with developing the codes of analysis.

Framing the Research Question

The concept of supply chain management has gained momentum globally across the world as envisaged from the existing literature. However, in the Indian sub-continent, the trend of such available research is few which prompted us to develop the first Research Question

R1: What are the trends in existing Literature available on Climate Smart Supply Chain Management practices in India?

The Second Research Question follows from the gap of lack of identification of adequate ways of determining the stages in Supply Chain Management and hence it concludes in

R2: What are the stages involved in Climate-smart Supply Chain Management?

The concluding research question deals with finding literature on the performance measurement of Climate smart supply chain management and hence the R3 stands as What are the existing mechanisms of Performance Measurement of Climate Smart Supply Chain Management in India?

Research Sample to be analysed

The research deals with 409 literatures available on the published for a period of 10 years from 2012 to 2021. These papers are indexed in either Google Scholar or Web of Science Journals.

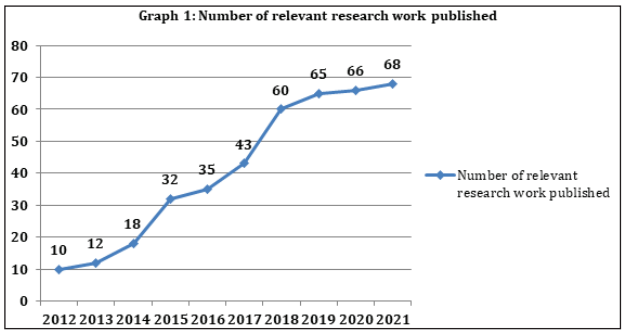
Developing the code for analysis

The code for analysis includes the following:

- Determining the trend of Climate-smart supply chain management
- Determining the phases of Climate-smart supply chain management in India
- Finding the literature regarding the measurement of performance of Supply Chain Management.

4. ANALYSIS AND FINDINGS

The trends available for existing literature on the Climate Smart Supply chain management are detailed from 2012 to 2022 in Graph 1.



Inference

The trend of the number of research papers published shows that the relevant research works on the topic has increased from 2012 to 2015 at an increasing rate, from 2015 to 2017 at a decreasing rate and then again from 2017 to 2021 at an increasing rate. This suggests that research on Climate-smart supply chain management has gained momentum since 2017 and thus concludes in the more use of Climate-smart Supply chain management in Indian business scenario. The very graph also addresses the R1.

In answering the R2: *What are the stages involved in Climate-smart supply chain management?* A detailed analysis of the existing literature has pointed out the following phases of business where Climate Smart Supply Chain Management can be applied:

Climate-friendly procurement of Raw Materials

As per the existing literature, Climate-smart supply chain management has its starting point at climate-friendly procurement of raw materials (Igarashi, 2013). The main motive of green procurement lies in the elimination of waste and the same must conclude in the purchasing department considering optimal use of the existing stock before going for purchasing further (Houston, 2010). Effective practices of climate-smart supply chain management visible in India over the past 10 years emphasize on reducing the source of waste and promoting more reduction and reuse of the resources. A significant research work by Dr. S.K. Srivastava has introduced the concept of 'the green multiplier effect which has proved that CSSCM in India has fostered sustainable management through eco-friendly procuring measures.

Eco-friendly designs of the manufacturing process

The existing research on the topic has confirmed that the second stage of Climate Smart Supply Chain Management in India involves designing the manufacturing process in an eco-friendly manner (S Luthra, 2011). The researchers have proved that climate-smart supply chain management includes the use of Life Cycle Analysis (Houston, 2010) in the Indian scenario. The life cycle analysis is the process of judging and predicting the results as well as the product of the process done in line with environmental policies (K Green, 1998).In the Indian context Life cycle Analysis progresses through finding the goals and determining the boundaries of analysis, then moves to 'analyze the inventory with the motive of having a balance between cost environmental practices' (Dr.Arvind Jayant, 2017). Lastly, the analysis ends in determining the effect of the system on the environment.

Sustainable Operations

Research revealed that the last phase of Climate Smart Supply Chain Management is managing the operations. Sustainable operations involve making decisions regarding how to control and upkeep a product in an eco-friendly manner. It involves storing materials by the reduction in energy consumption, increment in material reuse and also a reduction in emission (J Dumay, 2016).

The third research question *R3: What are the existing mechanisms of Performance Measurement of Climate Smart Supply Chain Management in India?* A thorough analysis of the existing literature reveals that a number of large firms are shifting to the adoption of CSSCM techniques (Qinghua, 2006). The Indian business scenario has not only adapted to the CSSCM but has also prompted its suppliers to make the same. The very phenomenon calls for assessing the performance of the firm under Climate Smart Supply Chain Management. According to the existing literature, CSSCM has been effectively measured by how effectively the management techniques can determine the pollution and waste management techniques as well as how effectively firms

can reduce consumption of hazardous and toxic materials. Sustainability also calls for financial sustainability along with environmental sustainability. The very aspect has ushered the Indian scenario to measure CSSCM in the lines of Economic benefits so derived.

5. CONCLUSION

Research has proved that the Indian scenario is gradually adapting to the Climate Smart Supply Chain Management but it is to be noted that only a hand few of them are adapting the same. An important aspect is the fact the concept of Climate Smart Supply Chain Management if, adapted singularly faces restrictions. It is only when CSSCM is applied in a cluster that a true synergetic effect will be achieved holistically. The research also proves that the primary focus of the measurement of CSSCM lies in cost-effective manner of reaching environmental sustainability over anything else.

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