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EXAMINING EVOLUTION OF MANAGEMENT PRACTICES FOR SUSTAINABLE SUPPLY CHAINS AND THEIR IMPACT ON THE ECONOMIC PERFORMANCE OF SMALL AND MEDIUM-SIZED ENTERPRISES: AN ANALYTICAL STUDY OF UTTARAKHAND STATE

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Abstract

The study's main goal is to pinpoint the crucial success elements for sustainable supply chains across India's small and medium-sized businesses in terms of organizational practices. Supply Chain Management is a business improvement strategy. SCM's primary goal is to make products and services better improving processes, enhancing their adaptability, resilience, and efficiency Competitiveness (W. Machowiak 2012). We are all aware of the detrimental effects the COVID-19 pandemic continues to have on our SME sector. The (COVID-19) flare-up demonstrates how pandemics can cause supply chains all around the world to collapse. Therefore, more research needs to be done in this area so that we can handle worsening situations in the future. In our paper, we will discuss the fundamental success criteria that, in terms of management techniques, are crucial for a sustainable supply chain. An attempt will also made to investigate, comprehend, and explain the development of supply chain management and exploring its future using comprehensive literature study. Additionally, in order to assess how management practises affect the performance of SMEs in the state of Uttarakhand. ***Methodology*** *– Secondary research (examination of papers) have been used to determine all the essential success elements. Further to assess the effect of management practices on the performance of SMEs, a structured questionnaire was given to 150 managerial-level employees, to gather information from manufacturing Small and Medium Enterprises (SMEs) in Uttarakhand. The hypotheses were made and tested using SPSS.* ***Inferences*** *- This study contributes to the ongoing research on supply chain sustainability and gives supply chain managers a useful method for assessing and implementing sustainability practises throughout supply chains. It also has direct implications for research scholars working in the field of determining the impact of management practises on SME performance, growth, and development.*

Keywords: *Sustainability, SCM (supply chain management), and SME (small and medium enterprises), key success factors.*

INTRODUCTION

Due to its innovative business approach and competitive advantage, supply chain management (SCM) has seen a sharp increase in attention. 80% of all businesses worldwide are SMEs (OECD, 2002). SME production accounts for more than 50% of the nation's manufacturing output in developing nations (Manhas et al., 2015; Gupta et al., 2016). But, small and medium-sized organisations (SMEs) are falling behind in understanding how an integrated supply chain promotes spectacular growth. Large companies are well aware of the benefits of SCM. Improvements in corporate operations and activities that lead to improved service quality, cost savings, and efficiency. Yet again Particularly, SMEs in India

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undervalue the potential advantages of SCM because they lack appropriate understanding about it. The potential to expand Indian SMEs through SCM is enormous given that SMEs are significant growth engines in India

In today's increasingly globalised economy small and medium-sized businesses (SMEs) are now more prevalent and are considered to be the main driver of dynamism, innovation, and flexibility in the economies of most industrialised countries as well as emerging and developing nations as they contribute far more to employment than large enterprises and can serve as the economic backbone of many regions (Peng, 2009) a significant contribution to economic growth and job creation (Koh et al., 2007). A Similar trends can be seen in Uttarakhand, where 99.2% of firms are small and medium-sized enterprises (SMEs), which have the potential to be a formidable engine of growth and innovation.

The goal of this study is to an effort to research, comprehend, and interpret supply chain management's development. And to examine two aspects (marketing management and human resource management) that have a big impact on the expansion of this industry. 150 questionnaires were completed for this purpose by workers in the manufacturing sector from the state of Uttarakhand.

Objectives of the Study

RQ1: To comprehend the development of SCM and its components

RO2: To identify key success factors and management strategies that affect how small and medium-sized enterprises (SMEs) manage their supply chains.

RQ3: Measure the effect of crucial success variables and management techniques on SMEs' economic performance.

SCM Development and Definitions

Supply chain management's parameters are constantly evolving. The definition of supply chain management in industry jargon has changed during the past 20 years. It is constantly changing and expanding in scope. Through the chronological review of articles, we have attempted to pinpoint the trend in the development of SCM in this instance. The pattern in the evolution of the definition of SCM will be demonstrated by reviewing papers in chronological order

References	Definitions
Chang et al. (2013)	E-procurement is a new strategic component of supply chain management.
Dubey and Ali (2013)	The management of upstream and downstream relationships with suppliers and consumers in order to improve customer value while keeping supply chain costs as low as possible can be referred to as supply chain management.
Machowiak (2012)	SCM is an approach for enhancing corporate processes so that they are more competitive, resilient, and agile. SCM's primary objective is to increase the competitiveness of products and services.
Randall and Mello (2012)	Supply and demand management are integrated into supply chain management both within and across businesses.
Dubey et al. (2012)	The notion of supply chain management controls the flow of resources from upstream to downstream participants, i.e., of materials, information, and money. It also addresses how materials should be disposed of after use in accordance with environmental standards. SCM strives to accomplish this as cheaply and as effectively as possible.
Melnyk et al. (2009)	It is no longer accurate to say that "SCM is primarily responsible for managing the buying as well as the flow of orders and information." Today, supply

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	chain management is considered as a whole, including all connected factors including strengthening product service quality, minimising waste, lowering supply chain risk, and improving new product design processes.
Parkan and Dubey (2009)	In INDIA, there are primarily two types of supply chain costs: A) Distribution cost, which is typically a logistics cost B) Inventory value and holding expenses, which are mostly made up of the cost of the inventory and the cost of maintaining it in storage
Wadhwa et al. (2008)	In an increasingly competitive and complicated market, the task of SCM is to find and put into practise techniques that minimise cost while maximising flexibility.
Vachon and Klassen (2007	The scope of supply chain management is expanding. Being effective is no longer sufficient; businesses today seek supply chains that are environmentally friendly and sustainable.
Sachan and Datta (2005)	SCM shouldn't be studied in isolation, nor should industrial progress be its main focus. SCM should include study of ideas like relationship marketing and market orientation. There is a need for new SCM boundaries that can accommodate all of these ideas.
Chen and Paulraj (2004)	The planning and control of materials and information movement internally within the organization or externally between companies are only a few examples of supply chain management tasks. It also covers strategic choices such as inter-organizational challenges and alternatives to vertical integration in organizational structure. Managing the relationships between suppliers and customers is another aspect of it.
McCormack and Kasper (2002)	By synchronising activities to include source, make, and deliver processes in cooperation with channel partners and suppliers, supply chain management processes assist a business in strengthening its competencies.
Skojett-Larsen (1999)	SCM can be viewed from a variety of angles, including those in management, system engineering, economics, and sociology.
Walton and Gupta (1999)	The integration of numerous concepts, including extended enterprise, the virtual organisation, the virtual value chain, and green supply chain, is known as supply chain management. From the standpoint of an industry's strategy and operations, these factors are crucial.
Spekman et al. (1998)	Supply chain management makes an effort to ensure that the knowledge of each supply chain participant is shared with the other supply chain participants. A company can increase customer value and acquire a competitive edge in the market by sharing its expertise.
Harland (1996)	The management of immediate relationships with suppliers, the integration of a customer's clients, and so on are all parts of the supply chain. It also merges two business tasks. It is the oversight of connected businesses that are ultimately responsible for providing end consumers with the products and service bundles they need.
Lee and Billington (1993)	A supply chain is a network of facilities that handles the tasks of obtaining raw materials, converting them into intermediate and final goods, and distributing those goods to clients.

After selecting the areas for the literature evaluation, it was decided which papers were relevant to the study questions and by following the analysis of numerous articles, the sorted articles were then examined to try to provide answers to the research questions RQ1. We were able to pinpoint three key supply chain dimensions

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1) Long-Term Partnership

Trust and open communication are the defining characteristics of a long-lasting partnership in supply chain management (Heidi and John, 1990). According to several academic studies, long-term relationships are a crucial aspect of SCM (Min and Mentzer, 2004). In a supply chain, the major goal of preserving a long-term relationship is to build on one another's advantages and create synergies that will increase overall gains (Carr and Pearson, 1999). Organisations need to be constantly conscious of their long-term partnerships with other businesses. Long-term relationships are extremely beneficial to an organisation because they allow individuals to share their expertise and experience while also allowing for the learning of others (Griffith, Harvey, and Lusch, 2006).

2) Collaboration of all Stakeholders

It primarily entails early cooperation amongst all supply chain participants, including customers and suppliers (Celtek and Kaynak, 1999). In order to prevent misunderstandings about any aspect of engineering design, all stakeholders are included in decision-making from the design stage on. By forming cross-functional teams and include all the stakeholders in the process of designing the product or process, all the work that may have dependencies with other stakeholders is completed.

3) Purchasing strategy

Strategic purchasing has overtaken traditional purchasing in the modern era. The vendors or suppliers, not the customers, are the ones who make the profits. Consequently, purchasing is evolving into a more deliberate process. Strategic purchasing includes identifying the vendor as well. Every decision in strategic purchasing is made with the long term in mind. The firm's strategic objectives and the purchasing policy should be closely coordinated.

Managers' perspectives on sustainability and economic performance

Based on the Research Questions s RQ2 and RQ3. Following hypothesis were formulated:

H1: Economic performance (EC) and managerial attitude and perspective towards sustainability (MAPS) are significantly correlated.

H2: Economic performance (EC) and sustainable strategic operations (SSO) have a substantial relationship.

An exploratory research design was conducted. The study's sample size was 150, and convenience random sampling was employed. Data for the study were gathered from the state of Uttarakhand. Primary and secondary data sources were used to gather the study's necessary data. Primary data was gathered using a questionnaire, while secondary data was gathered using research papers, News articles and websites.

For data interpretation, Cronbach's alpha, frequency, KMO, factor analysis, correlation, and multiple regression tools were employed using SPSS. All characteristics were evaluated using a five-point Likert scale, ranging from 1 to 5 (from strongly agree to strongly disagree).

Reliability of the variables in the Questionnaire

The general guideline for acceptable reliability is that it should be .7 or higher. For this survey, it was.971, hence values were considered reliable.

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Table 2: Scale: All Variables

Case Processing Summary

		N	%
Cases	Valid	150	100.0
	Excluded[a]	0	.0
	Total	150	100.0

a. Listwise deletion based on all variables in the procedure.

Table 3: Reability Statistics

Cronbach's Alpha	N of Items
.971	19

Factor Analysis

Since there were three variables, factor analysis was employed, enabling us to validate the measurement constructions. The variables were loaded to generate composites Table 4 presents the KMO and Bartlett's test results.

Because the KMO value in the present instance, is 0.847, it indicates that the sample size is sufficient. Fidell and Tabachnick (2000).

Table 4: KMO and Bartlett's Test

aiser-Meyer-Olkin Measure of Sampling Adequacy.		.847
Bartlett's Test of Sphericity	Approx. Chi-Square	4684.469
	Df	171
	Sig.	.000

Based on the results of a survey of SMEs in Uttarakhand, the performance of SMEs was evaluated to determine the most important variables that constitute sustainable supply chain practises.

Principal axis factoring was used to solve the problem with the restriction of a multiple Eigenvalue. Three extracted factors are listed. The value extracted with the variance for the first factor, which stood for six items, is 67.17%. The value extracted with the variance for the second component, which had five items, was 8.8 %. The value derived with the variance for the third factor, which had eight items, was 5.92%. These three retrieved factors are explained below:

Factor 1 consists of the top management's initiative and dedication, a long-term goal for survival and growth, a compliance statement, and other factors. Motivating vendors and suppliers to adopt sustainable practises, managing the workplace, and encouraging employee enthusiasm.

Factor 2 comprises strategic planning and HR procedures, IT-enabled system support, increased market share, and a productive internal communications system for businesses. Demand projections at the moment of sale.

Factor 3 Profit margin of sales, product sales, corporate image, cost savings, capacity utilisation, inbound logistics efficiency, on-time delivery, and outbound logistics efficiency. The correlation between the variables is shown in **Table 6.**

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Table 6: Correlations

		MAPS	SSO	EC
MAPS	Pearson Correlation	1	.911**	.847**
	Sig. (2-tailed)		.000	.000
	N	150	150	150
SSO	Pearson Correlation	.911**	1	.886**
	Sig. (2-tailed)	.000		.000
	N	150	150	150
EC	Pearson Correlation	.847**	.886**	1
	Sig. (2-tailed)	.000	.000	
	N	150	150	150

**. Correlation is significant at the 0.01 level (2-tailed).

Multiple Linear Regression:

The linkage between the three retrieved variables was evaluated using multiple linear regression analysis, as shown in Table 7 Below where Factor 1 contains top management's initiative and commitment, Long-term vision for survival and expansion, and Compliance declarations, vendor and supplier incentives to adopt sustainable practices, workplace management, and staff motivation have little bearing on a company's financial performance. Whether

Factor 2, which encompasses strategic planning and HR practices, IT-enabled system support, increased market share, and efficient internal communication platforms, has a substantial association Demand forecasting at the time of sale using company economic performance.

The model summary is shown in Table 7 with the values of R at 0.891, R2 at 0.794, and adjusted square at 0.792. Model 1 depicts the connection between SMEs' economic performance and leadership practices. The model is extremely significant when it is broadened as can be seen in Tables 7 and 8 below. Table 9 displays the relevance of each coefficient or component factor. Our first hypothesis is disproved since Factor 1 is not significantly relate to economic performance. Managerial perspectives and attitudes towards sustainability do not directly affect a company's economic performance. While data show that sustainable strategic operation and economic performance have a significant relationship. Which confirms our second idea. This means our second hypothesis is accepted

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.891[a]	.794	.792	.47814

a. Predictors: (Constant), SSO, MAPS

Table 8: ANOVA [a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	129.926	2	64.963	284.158	.000[b]
	Residual	33.606	147	.229		
	Total	163.532	149			

a. Dependent Variable: EC
b. Predictors: (Constant), SSO, MAPS

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Table 9: Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.941	.100		9.361	.000
	MAPS	.202	.079	.231	2.546	.012
	SSO	.575	.077	.676	7.451	.000

a. Dependent Variable: EC

CONCLUSION

Small and medium-sized businesses play a significant role in the economies of both developed and developing nations because they ensure an equitable distribution of wealth and national income and because they offer many employment opportunities to people, which helps to address the problem of unemployment in developing nations. The small-scale industrial sector in India has experienced significant expansion

This study aims to understand how management practises affect the performance of SMEs. It examines the three extracted variables—economic performance, sustainable strategic operations, and management attitude and perspective towards sustainability. In terms of managerial attitude and perspective towards sustainability, we found that management practises in the framework of sustainable strategic operation had a greater impact on the economic performance of small and medium-sized firms (SMEs) than on other types of businesses. In this study, we only investigate one aspect of performance, namely economic performance.

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