

## ROLE OF SUPPLY CHAIN MANAGEMENT PRACTICES: INDIAN MANUFACTURING INDUSTRIES PERSPECTIVE

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### Abstract

The supply chain of the manufacturing sectors is one of the most important elements that helps any particular organisation maintain a competitive advantage. SCM techniques are used by businesses to manage their supply chains. Organizational performance refers to a company's capacity to make the most use of its distribution and raw material resources while reducing the time it takes to produce finished items, the time it takes to make purchases, the price of its inventory, and the leading to significant. The study's goal was to comprehend the numerous SCM methods and their function in the Indian manufacturing sector's corporate culture. Samples of two hundred employees working in SCM for fifty organisations across five Indian manufacturing sectors were gathered using the questionnaire. To produce findings, descriptive analysis and ANOVA are used. The researcher discovered a variety of SCM methods employed in the industries and discovered that SCM practices play a crucial role and, if effectively implemented, can enhance industry performance.

**Keywords:** *SCM, Indian manufacturing industries.*

### Introduction

The supply chain of the manufacturing industries is one of the most important factors that contributes to the competitive advantage of any given firm. Supply chain management is the integration of important business activities from end user via original suppliers that deliver products, services, and information that generate value for the customers and other stakeholders. Supply Chain Management is a synthesis of many different elements (IT). Over the past few years, the supply chain's contribution to the overall enhancement of the company's performance has increased. Researchers are necessary to identify the numerous techniques that can be applied to match client expectations because of the fierce rivalry in the modern market. This will enable the supply chain to be more successfully coordinated throughout the entire process, from the acquisition of the product to its delivery to the client. In order to maintain economic equilibrium, effective supply chain management is also required. Given the foregoing explanation, the current study has been carried out.

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There are various researches being conducted in this topic like:

**Ascencio et al. (2014)** studied port development, governance, coordination, and industry best practises, as well as SCM practises. With this background knowledge, flaws in current logistics management procedures and possible PLC intervention areas were identified. With this knowledge, researchers suggested a redesign method and put up new structures within a collaborative framework while maintaining SCM principles. **Barnes & Liao (2012)** found that organisational awareness and supply network competency (organizational-level competency) both positively promote collaborative awareness. The favourable impact collaborative awareness has on strategic planning investment demonstrates the value of inter-organizational abilities. Supply chain and HR managers were also affected. **Cao et al. (2013)** discovered that information distribution using SCM systems across supply chain network participants is key to reaping the benefits. Organisations are more inclined to use supply chain management (SCM) systems if those systems are tailored to the firm's key business activities and that implementing such systems positively impacts network externalities.

Thus, it is proved that various researchers had shown their interest in SCM but very few researchers have conducted their study on analyzing the role of SCM in various manufacturing companies. Thus, the aim of the research is to study the role of SCM in various manufacturing companies.

## Aim

From the above discussion it is found that the research has not been conducted in this area specifically. So the aim of this study is:

- 1) To identify the various SCM practices implemented by the companies in Indian manufacturing industry.
- 2) To understand the role of SCM practices implemented by the companies in Indian manufacturing industry.

## Hypothesis

$H_{01}$ : There is no role of SCM practices in Indian manufacturing companies

## Material and Method

To achieve the aim of the research study, ANOVA is used and quantitative research design is followed. The primary data collection method that is questionnaire is used. Sample of 50 manufacturing companies from 5 major industries were taken on convenient sampling basis and total 200 employees dealing in SCM are being surveyed.

## Results and Discussions

**Objective 1: To identify the various SCM practices implemented by the companies in Indian manufacturing industry**

The various SCM practices implemented by the companies found by the researcher were:

Table 1: Type of Industry and Supply chain management practices

Type of Industry	Supply chain management practices – Holding safety stock	Supply chain management practices-Subcontracting	Supply chain management practices-E-procurement	Supply chain management practices Outsourcing	Supply chain management practices - Third Party Logistics(3PL)	Supply chain management practices Few suppliers	Supply chain management practices Close partnership with suppliers	Supply chain management practices Close partnership with customers	Supply chain management practices - Just in time(JIT) supply	Supply chain management practices Strategic planning	Supply chain management practices Supply chain benchmarking	Supply chain management practices Many suppliers
Gypsum goods	4.10	2.78	2.51	2.22	2.65	3.11	4.12	3.01	1.87	1.87	1.95	2.16
Chemical	3.19	3.10	4.39	2.26	3.24	1.22	2.15	2.61	1.82	2.59	2.33	3.01
Food	2.22	1.88	4.40	3.11	2.29	1.52	2.51	2.14	1.80	2.00	2.02	3.46
Electronics	3.62	2.56	3.11	2.56	3.01	3.12	3.01	3.27	1.85	2.69	2.77	2.11
Plastic	4.11	2.22	2.92	3.26	3.22	3.01	2.01	3.01	1.88	3.00	3.10	3.11

From the above table 1, it can be seen that electronics is highest in most of the practices like few supplier, Close partnership with customers, Strategic planning, Supply chain benchmarking, followed plastic industry is highest in SCM practices in holding safety stock, outsourcing, just in time.

**Objective 2: To understand the role of SCM practices implemented by the companies in Indian manufacturing industry.**

**H<sub>01</sub>: There is no role of SCM practices in Indian manufacturing companies**

Table 2: Anova: Type of Industry and Supply chain management practices

			Sum of Squares	df	Mean Square	F	Sig.
Supply chain management practices-Holding safety stock*Type of Industry	Between Groups	(Combined)	147.849	10	14.885	8.583	0.000
	Within Groups		860.526	491	1.734		
	Total		1008.375	501			
Supply chain management practices-Subcontracting*Type of Industry	Between Groups	(Combined)	107.028	10	10.803	11.025	0.000
	Within Groups		530.113	491	1.078		
	Total		637.141	501			
Supply chain management practices-E-procurement*Type of Industry	Between Groups	(Combined)	195.205	10	18.520	12.235	0.000
	Within Groups		819.395	491	1.648		
	Total		1014.600	501			

Supply chain management practices-Outsourcing* Type of Industry	Between Groups	(Combi ned)	266.414	10	25.34 1	15.50 8	0.00 0
	Within Groups		942.154	491	1.876		
	Total		1208.568	501			
Supply chain management practices-Third Party Logistics(3PL)* Type of Industry	Between Groups	(Combi ned)	312.621	10	21.76 2	13.27 0	.000
	Within Groups		375.835	491	1.774		
	Total		688.456	501			
Supply chain management practices-Few suppliers* Type of Industry	Between Groups	(Combi ned)	302.979	10	30.79 8	35.99 5	.000
	Within Groups		433.109	491	.880		
	Total		736.088	501			
Supply chain management practices-Close partnership with suppliers *Type of Industry	Between Groups	(Combi ned)	121.970	10	10.29 7	6.320	.000
	Within Groups		310.825	491	1.655		
	Total		432.795	501			
Supply chain management practices-Close partnership with customers*Type of Industry	Between Groups	(Combi ned)	97.425	10	9.843	7.089	.000
	Within Groups		791.680	491	1.616		
	Total		889.105	501			
Supply chain management practices-Just in time(JIT) supply*Type of Industry	Between Groups	(Combi ned)	192.080	10	19.10 8	33.06 1	.000
	Within Groups		728.330	491	1.463		
	Total		920.410	501			
Supply chain management practices-Strategic planning*Type of Industry	Between Groups	(Combi ned)	182.997	10	19.60 0	21.34 9	.000
	Within Groups		883.925	491	1.727		
	Total		1066.922	501			
Supply chain management practices-Supply chain benchmarking*Type of Industry	Between Groups	(Combi ned)	133.151	10	12.21 5	8.764	.000
	Within Groups		728.528	491	1.573		
	Total		861.679	501			
Supply chain management practices-Many suppliers*Type of Industry	Between Groups	(Combi ned)	122.002	10	13.30 0	18.25 3	.000
	Within Groups		421.787	491	.818		
	Total		543.789	501			

Source: Primary Data

Manufacturing needs supply chain management. All manufacturing industries use supply chain management. Variables, besides the number of suppliers, have a big impact on manufacturing. Here, it can be seen that supply chain management practices play an important in industries. **Therefore, the null hypothesis that is there is no role of SCM practices on Indian manufacturing companies rejected.**

## Conclusion

Supply chain management is facilitated by the application of SCM practises within organisations. A company's operational performance can be measured by how well it is able to reduce the amount of time it takes to turn over finished goods, the amount of time it takes to make purchases, the cost of its inventory, and the amount of managerial overhead it has, all while making the most of its raw resources and distribution skills. The goal of the study was to gain an understanding of the different SCM practices and role of SCM practises play in Indian manufacturing companies. Samples for the study as 200 employees of fifty different companies in 5 Indian manufacturing industries dealing in SCM and in order to collect data the questionnaire was used. In order to get findings, researcher has used the descriptive analysis and Anova. According to the findings, various SCM practices have been identified by the researcher and further found that SCM plays an important role in the manufacturing industries that will help in performance enhancement of the manufacturing industries.

## References

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