

A Study on Supply Chain Management of Export Companies with special reference to Coimbatore

Ms.V.J.Nirmala¹,MIB., Assistant Professor, Department of Commerce in International Business (M.Com (IB)), Kovai Kalaimagal College of Arts and Science, India.

Ms.S.Nivetha²,MBA., Assistant Professor, Department of Business Administration(CA), Kovai Kalaimagal College of Arts and Science, India.

ABSTRACT - A supply chain is the stream of processes of moving goods from the customer order through the raw materials stage, supply, production, and distribution of products to the customer. All organizations have supply chains of varying degrees, depending upon the size of the organization and the type of product manufactured. These networks obtain supplies and components, change these materials into finished products and then distribute them to the customer. Managing the chain of events in this process is what is known as supply chain management. Effective management must take into account coordinating all the different pieces of this chain as quickly as possible without losing any of the quality or customer satisfaction, while still keeping costs down. The present study is based on the primary data collected from 107 sample respondents by using well-structured and pre-tested questionnaire under convenience sampling method. The area of study is limited to Export Companies in Coimbatore city. The study found that there is no significant relationship between sector types and satisfaction with the current public policy regarding supply chain management. And also there is no significant relationship between industry types and company in managing its supply chain in general.

Keywords: Supply Chain Management, Export Companies, Coimbatore District.

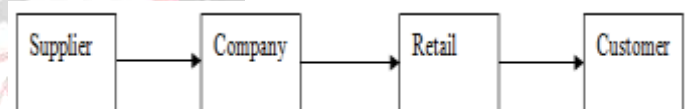
I. INTRODUCTION

Supply chain management (SCM) oversees and optimizes the processes of acquiring inputs from suppliers, converting those inputs into a finished product, and delivering those products—or outputs—to customers. SCM is an umbrella term that refers to a variety of approaches for the management of natural and human resources from the supplier to the manufacturer or service provider to the consumer and back. This includes the identification and creation of new opportunities for products and services in cooperation with upstream and downstream partners, and the involvement of internal as well as external stakeholders in decision making on supply chain matters.

Traditionally, a supply chain is:

A network of companies that exchange resources such as materials and information to deliver products to customers. Supply chains consist of a company, its suppliers, its distributors, and its customers.

In the traditional supply chain structure resources flow downstream to the consumer. The supply network consists of a focal company and its suppliers, retailers, and customers. Figure shows the basic structure of a supply chain.



The first step is obtaining a customer order, followed by production, storage and distribution of products and supplies to the customer site. Customer satisfaction is paramount. Included in this supply chain process are customer orders, order processing, inventory, scheduling, transportation, storage, and customer service. A necessity in coordinating all these activities is the information service network. In addition, key to the success of a supply chain is the speed in which these activities can be accomplished and the realization that customer needs and customer satisfaction are the very reasons for the network. Reduced inventories, lower operating costs, product availability and customer satisfaction are all benefits which grow out of effective supply chain management. The decisions associated with supply chain management cover both the long-term and short-term. Strategic decisions deal with corporate policies, and look at overall design and supply chain structure. Operational decisions are those dealing with every day activities and problems of an organization. These decisions must take into account the strategic decisions already in place. Therefore, an organization must structure the supply chain through long-term analysis and at

the same time focus on the day-to-day activities. Furthermore, market demands, customer service, transport considerations, and pricing constraints all must be understood in order to structure the supply chain effectively. These are all factors, which change constantly and sometimes unexpectedly, and an organization must realize this fact and be prepared to structure the supply chain accordingly. Structuring the supply chain requires an understanding of the demand patterns, service level requirements, distance considerations, cost elements and other related factors. It is easy to see that these factors are highly variable in nature and this variability needs to be considered during the supply chain analysis process. Moreover, the interplay of these complex considerations could have a significant bearing on the outcome of the supply chain analysis process.

1.2 STATEMENT OF THE PROBLEM

Supply Chain Management systems offer huge process, customer satisfaction and direct cost reduction potential for export companies. Without proper SCM strategy, action plan and processes, export companies will lose business to competitors who have already implemented SCM. Export companies sometimes are not taking Supply Chain Management systems seriously enough and, as a result, they are losing market share and, ultimately, money. Export Companies need to understand about the supply chain management system.

1.3 OBJECTIVES OF THE STUDY

The following research objectives have been defined for the present work.

1. To study on Supply chain Management of Export Companies with special reference to Coimbatore.
2. To know the supply chain strategies followed inside the organization.
3. To identify the current systems implemented for supply chain management and the benefits of using the systems
4. To determine the future supply chain systems needed for the export companies
5. To identify the measures followed for the supply chain management
6. To give suggestions based on the findings analyzed.

II. REVIEW OF LITERATURE

Catherine A. Nguengan. (2017)¹, In emerging economies such as South Africa, the implementation of supply chain management is characterised by significant problems. Despite its continued growth and importance to the economy, the food processing industry in the country remains vulnerable to these problems, which threaten its viability. The aim of this study was to investigate supply chain management problems in the food processing

industry and their influence on business performance. The study was motivated by the need to use supply chain management practices as a tool to improve business performance in the food processing industry. A questionnaire was distributed to a sample of 303 supply chain professionals working in the food processing industry in Gauteng Province. The collected data were analysed by using descriptive statistics, factor analysis, Pearson correlations and regression analysis. Supply chain management problems were identified in seven areas, namely human resource management, technology, facilities, supplier relationship management, customer relationship management, regulatory factors and logistics and transportation. Except for regulatory factors, all supply chain management problems negatively predicted business performance. Practically, the study enables supply chain professionals in the food processing industry to understand the sources of problems and use this information to develop solutions for the improvement of business performance. Theoretically, the study endorses the view that part of the key to resolving business performance complications in the food processing industry involves streamlining supply chain management by resolving its identifiable problems.

Dekeng S. Budiarto et al. (2017)², study aimed to examine the relation between the level of supply chain management (SCM) adoption and small & medium enterprises (SMEs) performance. SCM adoption level it is expected to facilitate SMEs in improving their efficiency, thus they can obtain their competitive advantage. The study uses primary data in the form of questionnaires. This study only takes the SMEs engaged in commerce (retail) business in order to avoid bias in IT usage. The questionnaires are given to 88 SMEs owners whom responsible for the IT development in their companies. The result proves that SCM adoption significantly affects SMEs performance. The hypotheses testing is performed using one-way ANOVA, the result shows that there are significant differences between level initiation, diffusion, and integration with SMEs performance. This study explains the relation between supply chain management (SCM) adoption level and SMEs performance that has never been performed before.

AC Thoo et al. (2017)³, aimed to review the tenet of SCM, its benefits and practices to SMEs. The author indicated that the Small and medium enterprises (SMEs) are a major source of dynamism, innovation and flexibility for emerging and developing countries, as well as for the economies of the most industrialised nations. However, the survival and growth of SMEs can be difficult in the current competitive business environment and global marketplace. It can be a real challenge to deliver the right product and service at the most opportune time and at the lowest possible cost to the right customer. The challenge stresses the importance of managing cross-boundary relationships between business partners. For gaining a competitive

advantage, supply chain management (SCM) is an effective tool to SMEs.

Nor Siah Jaharuddin et al. (2016)⁴, Small and medium enterprises (SMEs) represented the backbone of economic development of any country. In a turbulent dynamic market and changing environment, SMEs need to gain strategic information on its environments because failure to do so might pose a threat to firm's survival. Implementing supply chain intelligence (SCI) as a structured tool in gathering and analyzing information from 360-degree view of business activities is critical to businesses strategic decisions and performance in surviving and competing in dynamic markets. In spite of increasing interest and study in intelligence, discussion about the concept and its potential application to the SME sector was minimal from mainstream literature. Thus this study examined the level and extent of SCI practices amongst SMEs in strategic decisions and its contribution to enhance businesses and supply chain performance.

Z. Sayed et al. (2016)⁵, denoted that Supply chains are exposed to disruptions resulting from internal or external factors that hinder the performance of one or more of their constituent entities. An exploratory study was conducted to determine whether supply chain structure (SCS) influences supply chain risk (SCR), in the context of small and medium enterprises (SMEs) in South Africa. Thematic content analysis was applied to the case data of four Gauteng-based manufacturing SMEs (SMMEs). Results indicated that SCS does influence SCR. Investment in facility infrastructure and supplier relationships appear to be the most influential features. SCS also affects the operational and financial risk of an enterprise. These risks drive the SMEs' strategy and reputation, and consequently drive the corresponding risk dimensions (i.e., strategic and reputation risks). These findings are limited, and should not be generalised to all South African SMEs.

Oualid Kherbach et al. (2016)⁶, denoted that the globalization and the development of the economy as a process enable the creation of a single market and in this process logistics is an important tool. A market with well-organized logistics and supply chain management facilities has a qualified advantage over other economies, whereas improving logistics infrastructure may serve as a competitive tool and is also effective in rising market share. The study aimed to investigate how logistics can be considered as a tool for developing the activity of small and medium sized Romanian enterprises that in turn will enhance the good organization of the business and create an additional business chance.

Gopinath et al. (2016)⁷, demoted that Opening Indian market to the globe in 1991 has bestowed the Indian organizations with opportunities and an equal amount of threats. Indian organization especially, manufacturing Small and Medium Enterprises (SMEs) are not able to cope

with the stiff competition from the Multi-National Corporations (MNCs) in their respective markets. In current scenario with the increase in growth of internet facilities, SMEs can adopt eprocurement practices to extend their markets to global level. This study examined the extent of eProcurement practices adopted by manufacturing SMEs in Small Industries Development Corporation (SIDCO) in Coimbatore district in India and also figure out how SMEs perceive the benefits and barriers of e-procurement implementation. A questionnaire based survey technique was adopted to conduct the study. Study reveals that though SMEs views e-procurement practices as advantageous, their usage was minimal and is practiced to a great extent for the purpose of information sharing only.

Djoda Njoda Charles. (2016)⁸, employed Cameroonian data on 162 Small and Medium Enterprises (SME) to test fourth competing hypotheses about the impact of Supply Chain Management (SCM) on their performance. It is evident that SMEs in Cameroon face problems in SCM implementation due to lack of resources and direction. However, successful implementation of SCM can give SMEs an edge over their competitors. The findings of the study appeared to leave little room for explanations of the over/under-performance phenomenon rooted in the trade-off between different forms of managerial capital.

III. RESEARCH METHODOLOGY

Research methodology is a way to systematically solve the research problem. A researcher has to study the research problem along with the logic in it for that the researcher should not only know the research methods and techniques but also the methodology. The researcher has to apply particular research techniques in the problems and should also know which method or techniques is relevant or not so that, means, it is necessary for the researcher to design his methodology for his problems as the so may differ from problem to problem.

3.1 DATA COLLECTION

The present study is based on the primary data and secondary data, the primary data are collected from 107 sample respondents by using well-structured and pre-tested questionnaire. A pilot study was conducted to refine questionnaire for use in the final study. The secondary data collected from various journals, books and websites.

3.2 SAMPLING DESIGN

The population elements are selected for enclosure in the sample based on the ease of access is known as the convenience sampling.

3.3 AREA OF THE STUDY

The area of study is limited to Export Companies in Coimbatore city. Coimbatore District is one of the more affluent and industrially advanced districts of the state of

Tamil Nadu in India. Coimbatore is known as the “Manchester of South India”. It is one of the most industrialized towns of Tamil Nadu.

3.4 PERIOD OF STUDY

Data was collected from the respondents through questionnaires during the months of 2 months.

3.5 LIMITATIONS OF THE STUDY

In spite of detailed analysis made in the present study, this study is not free from limitations. The following are the important limitations:

1. The study is purely based on the views of 107 respondents only and hence the results may not be universally applicable.
2. The geographical area of this study is confined only to Coimbatore city.
3. The study is period specific.
4. The same consumer’s opinions may vary at different times because of their psychological instincts.
5. The survey is collected from respondents selected using Convenience sampling method.
6. The limitations of this method are applicable to this study.

IV. ANALYSIS AND INTERPRETATION

A. SIMPLE PERCENTAGE ANALYSIS

TABLE 4.1 SECTOR TYPES

Sector Types	No. of Respondents	Percent
Manufacturing	46	43.0
Service	43	40.2
Both	18	16.8
Total	100	100.0

Source: Primary Data

INTERPRETATION:

The above table 4.1 depicts that 43% of the respondents are from ‘Manufacturing’ sector whereas 40.2% of the respondents are from ‘Service’ sector and the remaining 16.8% of the respondents are from ‘Both’ Sector.

The result inferred that most (43%) of the respondents are from ‘Manufacturing’ sector types only.

TABLE 4.2 INDUSTRY

Industry	No. of Respondents	Percent
Manual	45	42.1
Automotive	36	33.6
Other	26	24.3
Total	100	100.0

Source: Primary Data

INTERPRETATION:

The above table 4.2 reveals that 42.1% of the respondents are from ‘Manual’ industry whereas 33.6% of the respondents are from ‘Automotive’ industry and the remaining 24.3% of the respondents belongs to ‘Other’ industry.

The result inferred that most (42.1%) of the respondents are from ‘Manual’ industry.

TABLE 4.3 WAYS TO MANAGE SUPPLY CHAIN

Ways to manage Supply Chain	No. of Respondents	Percent
Close partnership with suppliers	32	29.9
Close partnership with customers	24	22.4
Subcontracting	17	15.9
e-procurement	13	12.1
Outsourcing	5	4.7
Other	16	15.0
Total	100	100.0

Source: Primary Data

INTERPRETATION:

The above table 4.3 indicates that 29.9% of the respondents have ‘Close Partnership with suppliers’ whereas 22.4% of the respondents have ‘Close Partnership with Customers’, 15.4% of the respondents have ‘Subcontracting’, 15% of the respondents have ‘other’ ways to manage supply chain, 12.1% of the respondents have ‘E-Procurement’ and the remaining 4.7% of the respondents have ‘Outsourcing’.

The result inferred that most (29.9%) of the respondents have ‘Close Partnership with Suppliers’ in order to manage supply chain better.

TABLE 4.4 COMPANY’S SUCCESSFUL LEVEL IN MANAGING ITS SUPPLY CHAIN IN GENERAL

Company’s Successful level in managing its supply chain in general	No. of Respondents	Percent
Not Successful	20	18.7
Somewhat Successful	38	35.5
Successful	29	27.1
Very successful	20	18.7
Total	100	100.0

Source: Primary Data

INTERPRETATION:

The above table 4.4 reveals that 35.5% of the respondents managing their supply chain techniques ‘Somewhat successful’ whereas 27.1% of the respondents stated ‘Successful’, 18.7% of the respondents stated ‘Not Successful’ and the same level of 18.7% of the respondents stated ‘Very Successful’.

The result inferred that most (35.5%) of the respondents managing their supply chain techniques ‘Somewhat successful’

TABLE 4.5 COMPANY HAVE SEPARATE LOGISTICS DEPARTMENT

COMPANY HAVE SEPARATE LOGISTICS DEPARTMENT	No. of Respondents	Percent
Yes	54	50.5
No	53	49.5
Total	100	100.0

Source: Primary Data

INTERPRETATION:

The above table 4.5 reveals that 50.5% of the respondents having separate logistics department whereas 49.5% of the respondents do not having separate logistics department.

The result inferred that majority (50.5%) of the respondents having separate logistics department.

TABLE 4.6 COMPANY HAVE A CLEAR LOGISTICS STRATEGIC PLAN

Company have a clear logistics strategic plan	No. of Respondents	Percent
Yes	56	52.3
No	51	47.7
Total	100	100.0

Source: Primary Data

INTERPRETATION:

B. DESCRIPTIVE STATISTICS

TABLE 4.8 COMPANY NEEDS TO DO IN ORDER TO MANAGE ITS SUPPLY CHAIN BETTER

Descriptive Statistics					
Factors	N	Minimum	Maximum	Mean	Std. Deviation
Close partnership with suppliers	107	.00	3.00	1.5421	.98364
Close partnership with customers	107	.00	3.00	1.4673	1.03994
e-procurement	107	.00	3.00	1.5701	.96262
Outsourcing	107	.00	3.00	1.4673	.83911
Subcontracting	107	.00	3.00	1.3738	.81869
Plan strategically	107	.00	2.00	1.3084	.66462
Supply Chain Benchmarking	107	.00	3.00	1.5421	.93446
Few suppliers	107	.00	3.00	1.6636	.98999
Many suppliers	107	.00	3.00	1.7477	.94263
Valid N (listwise)	107				

INTERPRETATION:

Table 4.8 shows the company needs to do in order to manage its supply chain better. ‘Many Suppliers’ has the first rank with a mean value of 1.74. ‘Few Suppliers’ has the second rank with a mean value of 1.66. ‘E-procurement’ has the third rank with a mean value of 1.57. ‘Close partnership with suppliers’ and ‘Supply Chain Benchmarking’ has the fourth rank with a mean value of 1.54. ‘Close partnership with customers’ and ‘Outsourcing’ has the fifth rank with a mean value of 1.46. ‘Subcontracting’ has the sixth rank with a mean value of 1.37 and finally ‘Plan strategically’ has the Seventh rank with a mean value of 1.30.

The above table 4.6 induces that 52.3% of the respondents having clear logistics strategic plan whereas 47.7% of the respondents do not having clear logistics strategic plan.

The result inferred that majority (52.3%) of the respondents having clear logistics strategic plan.

TABLE 4.7 LEVEL OF SATISFACTION WITH THE CURRENT PUBLIC POLICY REGARDING SCM

Level of Satisfaction with the current public policy regarding SCM	No. of Respondents	Percent
Not at all	11	10.3
Somewhat	20	18.7
Satisfied	19	17.8
Quite satisfied	29	27.1
Very satisfied	28	26.2
Total	100	100.0

Source: Primary Data

INTERPRETATION:

The above table 4.7 describes that 27.1% of the respondents are ‘Quite Satisfied’ with the current public policy regarding Supply Chain Management whereas 26.2% of the respondents are ‘Satisfied’, 18.7% of the respondents are ‘Somewhat Satisfied’, 17.8% of the respondents are ‘Satisfied’ and the remaining 10.3% of the respondents are ‘Not at all Satisfied’ with the current public policy regarding Supply Chain Management.

The result inferred that most (27.1%) of the respondents are ‘Quite Satisfied’ with the current public policy regarding Supply Chain Management.

‘Many suppliers’ has the first rank with a mean value of 1.74 and ‘Plan strategically’ has the Seventh rank with a mean value of 1.30.

TABLE 4.9 TYPES OF SYSTEMS ARE CURRENTLY USING IN COMPANY TO SUPPORT SUPPLY CHAIN MANAGEMENT

Descriptive Statistics					
Systems	N	Minimum	Maximum	Mean	Std. Deviation
Material Requirements Planning (MRP)	107	.00	2.00	1.1869	.60080
Manufacturing Resources Planning (MRPII)	107	.00	2.00	1.3645	.65000
Enterprise Resource Planning (ERP)	107	.00	2.00	1.1776	.59579
Warehouse Management System (WMS)	107	.00	2.00	1.4673	.66329
Supply Chain Management (SCM)	107	.00	2.00	1.0935	.50531
Supplier Relationships Management (SRM)	107	.00	2.00	1.5794	.64483
Advanced Planning System (APS)	107	.00	2.00	1.2617	.58819
E-commerce	107	.00	2.00	1.4206	.64483
E-business	107	.00	2.00	.9626	.45402
Decision support / expert system	107	.00	2.00	1.6822	.66727
Bar coding	107	.00	2.00	1.3738	.66621
Valid N (listwise)	107				

INTERPRETATION:

Table 4.9 shows the types of systems are currently using in company to support supply chain management. ‘Decision support / expert system’ has the first rank with a mean value of 1.68. ‘Supplier Relationships Management (SRM)’ has the second rank with a mean value of 1.57. ‘Warehouse Management System (WMS)’ has the third rank with a mean value of 1.46. ‘E-commerce’ has the fourth rank with a mean value of 1.42. ‘Bar coding’ has the fifth rank with a mean value of 1.37. ‘Manufacturing Resources Planning (MRPII)’ has the sixth rank with a mean value of 1.36, ‘Advanced Planning System (APS)’ has the seventh rank with a mean value of 1.26, ‘Material Requirements Planning (MRP)’ has the eighth rank with a mean value of 1.18, ‘Enterprise Resource Planning (ERP)’ has the ninth rank with a mean value of 1.17, ‘Supply Chain Management (SCM)’ has the tenth rank with a mean value of 1.09 and finally ‘E-business’ has the eleventh rank with a mean value of 0.96.

‘Decision support / expert system’ has the first rank with a mean value of 1.68 and ‘E-business’ has the least rank with a mean value of 0.96.

TABLE 4.10 BENEFITS FROM USING THE SUPPLY CHAIN MANAGEMENT SYSTEMS

Descriptive Statistics					
Benefits	N	Minimum	Maximum	Mean	Std. Deviation
Better quality of information	107	.00	3.00	1.9864	.90678
Better quantity of information	107	.00	3.00	1.1682	.65136
Flexibility	107	.00	3.00	1.4393	.82619
Reduced lead-time in production	107	.00	3.00	1.8505	.91943
Cost saving	107	.00	3.00	1.6729	.94944
Forecasting	107	.00	3.00	1.9065	.80719
Resource planning	107	.00	3.00	1.8879	.89366
Better operational efficiency	107	.00	3.00	1.6542	.66023
Reduced inventory level	107	.00	3.00	1.8785	1.06142
More accurate costing	107	.00	3.00	1.9720	.97572
Increased sales	107	.00	3.00	1.8037	1.05006
Valid N (listwise)	107				

INTERPRETATION:

Table 4.10 shows the benefits from using the supply chain management systems. ‘Better quality of information’ has the first rank with a mean value of 1.9864, ‘More accurate costing’ has the second rank with a mean value of 1.972, ‘Forecasting’ has the third rank with a mean value of 1.9065, ‘Resource planning’ has the fourth rank with a mean value of 1.8879, ‘Reduced inventory level’ has the fifth rank with a mean value of 1.8785, ‘Reduced lead-time in production’ has the sixth rank with a mean value of 1.8505, ‘Increased sales’ has the seventh rank with a mean value of 1.8037, ‘Cost saving’ has the eighth rank with a mean value of 1.6729, ‘Better operational efficiency’ has the ninth rank with a mean value of 1.6542, ‘Flexibility’ has the tenth rank with a mean value of 1.4393 and ‘Better quantity of information’ has the least rank with a mean value of 1.1682.

‘Better quality of information’ has the first rank with a mean value of 1.9864 and ‘Better quantity of information’ has the least rank with a mean value of 1.1682.

TABLE 4.11 LEVEL OF PROBLEMS FACED IN FOLLOWING THE SUPPLY CHAIN MANAGEMENT SYSTEMS

Descriptive Statistics					
Problems	N	Minimum	Maximum	Mean	Std. Deviation
Resistance to change from employees	107	.00	4.00	2.1776	1.31618
Resources shortages e.g. no maintenance and update	107	.00	4.00	2.4673	1.41633
Skills shortages e.g. Computer illiteracy within the company	107	.00	4.00	2.6916	1.20855
Insufficient vendor support	107	.00	4.00	2.3364	1.12387
Hidden cost	107	.00	3.00	1.3458	.63100
Integration with existing system	107	.00	4.00	2.1215	1.15506
Integration with supplier’s system	107	.00	4.00	2.2243	1.44919
Integration with customer’s system	107	.00	4.00	2.8879	1.48150
Valid N (listwise)	107				

INTERPRETATION:

Table 4.11 shows the level of problems faced in following the supply chain management systems. ‘Integration with customer’s system’ has the first rank with a mean value of 2.8879, ‘Skills shortages e.g. Computer illiteracy within the company’ has the second rank with a mean value of 2.6916, ‘Resources shortages e.g. no maintenance and update’ has the third rank with a mean value of 2.4673, ‘Insufficient vendor support’ has the fourth rank with a mean value of 2.3364, ‘Integration with supplier’s system’ has the fifth rank with a mean value of 2.2243, ‘Resistance to change from employees’ has the sixth rank with a mean value of 2.1776, ‘Integration with existing system’ has the seventh rank with a mean value of 2.1215 and finally ‘Hidden cost’ has the least rank with a mean value of 1.3458.

‘Integration with customer’s system’ has the first rank with a mean value of 2.8879 and ‘Hidden cost’ has the least rank with a mean value of 1.3458.

TABLE 4.12 TYPES OF SYSTEMS PLANNED TO IMPLEMENT IN THE NEAR FUTURE

Descriptive Statistics					
Types of Systems	N	Minimum	Maximum	Mean	Std. Deviation
Material Requirements Planning (MRP)	107	.00	1.00	.8972	.30513
Manufacturing Resources Planning (MRPII)	107	.00	2.00	1.7944	.61026
Enterprise Resource Planning (ERP)	107	.00	2.00	1.3084	.65027
Warehouse Management System (WMS)	107	.00	2.00	1.3551	.64796
Supply Chain Management (SCM)	107	.00	1.00	.9159	.27886
Customer Relationships Management (CRM)	107	.00	2.00	1.7196	.61113
Supplier Relationships Management (SRM)	107	.00	2.00	1.2336	.59208
E-commerce	107	.00	2.00	1.4019	.64222
E-business	107	.00	2.00	.9533	.44262
Decision support / expert system	107	.00	2.00	1.7196	.64126
Radio No. of Respondents Identification (RFID)	107	.00	2.00	1.5794	.65929
Electronic Data Interchange (EDI)	107	.00	2.00	1.2150	.59918
Bar coding	107	.00	2.00	1.4860	.63490

Descriptive Statistics					
Types of Systems	N	Minimum	Maximum	Mean	Std. Deviation
Material Requirements Planning (MRP)	107	.00	1.00	.8972	.30513
Manufacturing Resources Planning (MRPII)	107	.00	2.00	1.7944	.61026
Enterprise Resource Planning (ERP)	107	.00	2.00	1.3084	.65027
Warehouse Management System (WMS)	107	.00	2.00	1.3551	.64796
Supply Chain Management (SCM)	107	.00	1.00	.9159	.27886
Customer Relationships Management (CRM)	107	.00	2.00	1.7196	.61113
Supplier Relationships Management (SRM)	107	.00	2.00	1.2336	.59208
E-commerce	107	.00	2.00	1.4019	.64222
E-business	107	.00	2.00	.9533	.44262
Decision support / expert system	107	.00	2.00	1.7196	.64126
Radio No. of Respondents Identification (RFID)	107	.00	2.00	1.5794	.65929
Electronic Data Interchange (EDI)	107	.00	2.00	1.2150	.59918
Bar coding	107	.00	2.00	1.4860	.63490
Valid N (listwise)	107				

INTERPRETATION:

Table 4.12 shows the types of systems planned to implement in the near future. ‘Manufacturing Resources Planning (MRPII)’ has the first rank with a mean value of 1.7944, ‘Customer Relationships Management (CRM)’ has the second rank with a mean value of 1.7196, ‘Decision support / expert system’ has the third rank with a mean value of 1.7196, ‘Radio Frequency Identification (RFID)’ has the fourth rank with a mean value of 1.5794, ‘Bar coding’ has the fifth rank with a mean value of 1.486, ‘E-commerce’ has the sixth rank with a mean value of 1.4019, ‘Warehouse Management System (WMS)’ has the seventh rank with a mean value of 1.3551, ‘Enterprise Resource Planning (ERP)’ has the eighth rank with a mean value of 1.3084, ‘Supplier Relationships Management (SRM)’ has the ninth rank with a mean value of 1.2336, ‘Electronic Data Interchange (EDI)’ has the tenth rank with a mean value of 1.215, ‘E-business’ has the eleventh rank with a mean value of 0.9533, ‘Supply Chain Management (SCM)’ has the twelfth rank with a mean value of 0.9159 and ‘Material Requirements Planning (MRP)’ has the least rank with a mean value of 0.8972.

‘Manufacturing Resources Planning (MRPII)’ has the first rank with a mean value of 1.7944 and ‘Material Requirements Planning (MRP)’ has the least rank with a mean value of 0.8972.

TABLE 4.13 FUTURE MEASURES FOR SUPPORTING THE COMPANY EFFORT IN SUPPLY CHAIN MANAGEMENT

Descriptive Statistics					
Future Measures	N	Minimum	Maximum	Mean	Std. Deviation
More education, e.g. formal qualification	107	.00	4.00	2.5234	1.16834
Easier access to vocational training	107	.00	4.00	3.0748	1.37155
More funding and financial support	107	.00	4.00	2.9533	1.51336
More inter-country regional agreements	107	.00	4.00	2.3832	1.12136
Better infrastructure e.g. telecommunications, road, etc	107	.00	4.00	2.1028	1.36627
Improved information provision	107	.00	4.00	2.3178	1.17841
Increased regional cooperation between institutions, e.g. chamber of commerce	107	.00	4.00	2.4299	1.31114
Closer cooperation between companies and governments	107	.00	4.00	2.5701	1.44138
Other (specify)	107	.00	4.00	2.3084	1.53212
Valid N (listwise)	107				

INTERPRETATION:

Table 4.13 shows the future measures for supporting the company effort in supply chain management. ‘Easier access to vocational training’ has the first rank with a mean value of 3.0748, ‘More funding and financial support’ has the second rank with a mean value of 2.9533, ‘Closer cooperation between companies and governments’ has the third rank with a mean value of 2.5701, ‘More education, e.g. formal qualification’ has the fourth rank with a mean value of 2.5234, ‘Increased regional cooperation between institutions, e.g. chamber of commerce’ has the fifth rank with a mean value of 2.4299, ‘More inter-country regional agreements’ has the sixth rank with a mean value of 2.3832, ‘Improved information provision’ has the

seventh rank with a mean value of 2.3178, ‘Other (specify)’ has the eighth rank with a mean value of 2.3084 and ‘Better infrastructure e.g. telecommunications, road, etc’ has the least rank with a mean value of 2.1028.

‘Easier access to vocational training’ has the first rank with a mean value of 3.0748 and ‘Better infrastructure e.g. telecommunications, road, etc’ has the least rank with a mean value of 2.1028.

III. CHI-SQUARE ANALYSIS

A. SECTOR TYPES AND SATISFACTION WITH THE CURRENT PUBLIC POLICY REGARDING SUPPLY CHAIN MANAGEMENT

Null Hypothesis (H₀): There is no significant relationship between sector types and satisfaction with the current public policy regarding supply chain management

Alternative Hypothesis (H_a): There is a significant relationship between sector types and satisfaction with the current public policy regarding supply chain management.

Sector Types	Not at all	Somewhat	Satisfied	Quite satisfied	Very satisfied	Total
Manufacturing	11	8	12	11	4	46
Service	7	7	13	11	5	43
Both	2	4	4	6	2	18
Total	20	19	29	28	11	107

Table Value	Calculated Value	Degrees of Freedom
15.507	2.596	8

INFERENCE:

In the above analysis, the calculated chi-square value 2.596 is less than the table value 15.507 at the level of 5% significance. Hence the null hypothesis is accepted. Thus it can be inferred that there is no significant relationship between sector types and satisfaction with the current public policy regarding supply chain management.

B. INDUSTRY TYPES AND COMPANY IN MANAGING ITS SUPPLY CHAIN IN GENERAL

Null Hypothesis (H₀): There is no significant relationship between industry types and company in managing its supply chain in general

Alternative Hypothesis (H_a): There is a significant relationship between industry types and company in managing its supply chain in general

Industry Types	Not Successful at all	Not Successful	Somewhat Successful	Successful	Very successful	Total
Manual	15	14	8	6	2	45
Automotive	14	8	8	5	1	36
Other	9	7	4	4	2	26
Total	38	29	20	15	5	107

Table Value	Calculated Value	Degrees of Freedom
15.507	2.016	8

INFERENCE:

In the above analysis, the calculated chi-square value 2.016 is less than the table value 15.507 at the level of 5% significance. Hence the null hypothesis is accepted. Thus it can be inferred that there is no significant relationship between industry types and company in managing its supply chain in general.

V. FINDINGS

A. SIMPLE PERCENTAGE ANALYSIS

- Most (43%) of the respondents are from ‘Manufacturing’ sector types only.
- Most (42.1%) of the respondents are from ‘Manual’ industry.
- Most (29.9%) of the respondents have ‘Close Partnership with Suppliers’ in order to manage supply chain better.

- Most (35.5%) of the respondents managing their supply chain techniques 'Somewhat successful'
- Majority (50.5%) of the respondents having separate logistics department.
- Majority (52.3%) of the respondents having clear logistics strategic plan.
- Most (27.1%) of the respondents are 'Quite Satisfied' with the current public policy regarding Supply Chain Management.

B. DESCRIPTIVE STATISTICS

- The descriptive statistics regarding the company needs to do in order to manage its supply chain better stood at 'Many suppliers' has the first rank with a mean value of 1.74 and 'Plan strategically' has the Seventh rank with a mean value of 1.30.
- The descriptive statistics regarding the types of systems are currently using in company to support supply chain management stood at 'Decision support / expert system' has the first rank with a mean value of 1.68 and 'E-business' has the least rank with a mean value of 0.96.
- The descriptive statistics regarding the benefits from using the supply chain management system stood at 'Better quality of information' has the first rank with a mean value of 1.9864 and 'Better quantity of information' has the least rank with a mean value of 1.1682.
- The descriptive statistics regarding the level of problems faced in following the supply chain management systems stood at 'Integration with customer's system' has the first rank with a mean value of 2.8879 and 'Hidden cost' has the least rank with a mean value of 1.3458.
- The descriptive statistics regarding the types of systems planned to implement in the near future stood at 'Manufacturing Resources Planning (MRPII)' has the first rank with a mean value of 1.7944 and 'Material Requirements Planning (MRP)' has the least rank with a mean value of 0.8972.
- The descriptive statistics regarding the future measures for supporting the company effort in supply chain management stood at 'Easier access to vocational training' has the first rank with a mean value of 3.0748 and 'Better infrastructure e.g. telecommunications, road, etc' has the least rank with a mean value of 2.1028.

C. CHI-SQUARE ANALYSIS

- There is no significant relationship between sector types and satisfaction with the current public policy regarding supply chain management.

- There is no significant relationship between industry types and company in managing its supply chain in general.

5.1 SUGGESTIONS

The following suggestions were given by the respondents during the data collection phase of the study,

- There is a need for sufficient transportation in supply chain department.
- The organization is in need of tactical activities to boost the protection.
- The supply chain department should take care of evolution of defective raw materials.
- The business performance factors are good and it should be improved little.
- The Measures of performance lays emphasis on SCM in Organization is very good and in need of development.
- The Production scheduling decision of Supply Chain Management are good and in need of improvement.

It is suggested to avoid the sub-contracting work and try to implement that work in their work place itself. It will reduce the time delay in supply chain activities. The company is advised to follow supply chain bench marking activities with the customer side also. The first set of recommendations outline regulatory measures to increase supply chain transparency require business to disclose essential supply chain information and their (risks to) adverse impacts, Provide consumers with a right to information; and Increase traceability through complex supply chains.

More transparent supply chains, better access to information for consumers and other "drivers for change" such as investors, may provide the necessary push towards uptake of responsible business conduct on a large scale.

VI. CONCLUSION

On the basis of the findings of the study, some practicable and viable suggestions are given. Business is undergoing a strategic transformation companies require clear vision and an attunement to balance the need sustainable in doing sum. It is a pointer to the direction in which corporate strategies would need to change in order to make organization function a truly responsible.

In other words future belongs to only those organizations that undertake and imbibe well defined SCM. The globalization of SCM with goal of increasing competitive advantage, creating more value-added and reducing costs through global sourcing. In a highly competitive business environment a well-established supply chain strategy absolutely essential for ensuring competitive edge in the market place. Thus the study concluded that SCM is the most powerful tool for bringing innovations and

maintaining price competitions which is a door step for transferring companies into a power house.

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