

Project on “Impact of IT in supply chain and logistic management”.

Submitted By:

Atul Bharti

(2K20/EMBA/09)

Under the Guidance of:

Dr. Sonal Thukral



DELHI SCHOOL OF MANAGEMENT

Delhi Technological University

Bawana Road Delhi 110042

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CERTIFICATE

This is to certify that Atul Bharti 2K20/EMBA/09 has submitted the project report titled “Impact of IT in supply chain and logistic management” in partial fulfillment of the requirements for the award of the degree of Master of Business Administration (MBA) from Delhi School of Management, Delhi Technological University, New Delhi during the academic year 2021-22.

Signature of Guide
(DSM)

Signature of Head

Seal of Head

Place: New Delhi

Date:12/05/22

DECLARATION

I, Atul Bharti, student of EMBA 2020-22 of Delhi School of Management, Delhi Technological University, Bawana Road, Delhi – 42, hereby declare that the dissertation report “Impact of IT in supply chain and logistic management” submitted in partial fulfillment of Degree of Masters of Business Administration is the original work conducted by me.

The information and data given in the report is authentic to the best of my knowledge.

This report is not being submitted to any other University, for award of any other Degree, Diploma or Fellowship.

Place: New Delhi

Date: 12/05/22

Atul Bharti

(2K20/EMBA/09)

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Atul Bharti
(2K20/EMBA/09)

ABSTRACT

Information Technology (IT) helps make things more efficient and effective in creating value for businesses. As a result, there are many IT systems available for use in Supply Chain. However, The manger in SCM have not proper skills to finalize the appropriate information technology tool for their system. This issue can undermine the benefits of the concept of supply chain management (SCM) in partnership with IT. Therefore, the purpose of this study was to identify the key IT systems used in SCM in the telecom industry. We analyzed the impact of IT investment in SCM in the industrial telecom sector using six different organizational approaches: incorporation, storage costs, carrying costs, carrying speeds, competitiveness, and corporate communications

The results show that, as well as organizational flexibility, integration has the greatest impact on IT implementations, followed by competition, transportation costs, and speed. It seems that now a day SCM has become a very significant management tool to help improve the performance of business in that particular sector i.e. in telecom sector. Information and communication technology is extensively used in supply chains, but lacks logical verification of how IT form their value.

In addition, key supply chain goals precede effectiveness in achieving high-level goals such as: B. Evaluate market resilience, acquire new partnerships and provide more customers with the skills they need to gain a competitive advantage. Well understood by researchers and collaborators.

Contents

1.	EXECUTIVE SUMMARY	6
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2.	NEED FOR THE STUDY	7
3.	Statement of Problem:.....	9
4.	OBJECTIVES OF THE STUDY	10
5.	SCOPE OF THE STUDY	11
6.	METHODOLOGY ADOPTED	11
7.	REVIEW OF LITERATURE	13
	A.Functions of Information Technology	13
	B.Supply Chain Management	13
	C. IT Applications in Supply Chain Management.	14
	D.Benefits of IT to Supply chain management	16
	E.Challenges	17
8.	Data collection	20
9.	Data analysis	21
10.	Findings and Recommendations	34
11.	Conclusion	35
12.	Recommendations:.....	36
	Bibliography	37
	Questionnaire	Error! Bookmark not defined.

1. EXECUTIVE SUMMARY

Information Technology and its use for Supply chain in any organizations has provide a competitive benefit for many companies in the telecom sector. This study aim on the use and impact of IT system tools on SCM, logistics, procurement and warehouse management. It also emphasizes the contribution of IT in supply chain for telecom industry. This helps restructure all scattered sales to get advanced service levels, lower logistic, procurement, SCM costs. The study also wants to enhanced knowledge the importance and challenges of IT systems in supply chain situations.

Based on a cost-based approach combined with cost-effectiveness, we expand a intangible model that incorporate 3 Information Technology tools (backend incorporation, management skills, and supplier support) to enhance performance development. The model differs from previous studies by suggesting a competitive measure of performance in resource performance relationships. The technical service alone, however, has no answer in creating the value of IT.

In fact, management skills, which allow for adaptation of supply chain processes and company strategies to meet IT applications, are shown to play a very strong role in creating value for IT.

In addition, the incorporation of backend and management skills is found to be very significant in highly competitive environments in Telecom sector. While resources such as assets have a declining value under competition, integration and management resources become even more powerful. All in all, this paper provides insight into key drivers of IT-enabled supply chains.

2. NEED FOR THE STUDY

In the era of business competitiveness the telecom service provider companies need to provide the best services to their customers with lesser price. The use of IT tools is especially noticeable in the supply chain management and assets of telecommunications companies in order to reduce operating costs. Information technology has become an important factor in automating supply chain operations. Despite the IT applications and the many benefits they offer, small telecommunications providers are lagging behind in adopting IT tools to guide and manage their supply chains. Especially in India, supply chain management is closely linked to the beginning of globalization, opening up the local Indian economy to the international economy.

However, the importance and benefits of Supply chain in India is not recognized by the small-scale sectors which is leading in the country (Placeholder2). We can say that in the telecommunication sector use of IT is not uniform. This may arise questions. Do IT tools provide opportunities and benefits to SCM's small telecom service providers (TSPs)? Therefore, you need to consider the impact of IT on supply chain management and how IT is implemented. In communication to support these TSPs in enhancing the productivity, effectiveness and developing aggressive supply chains. It also gives TSP insights to understand how ICT tools can help you operate your supply chain..

3. Statement of Problem:

It is used to address supply chain information needs by companies and customer requirements have increased. Telecom companies are re-evaluating how business is run due to new technologies and increasing competitiveness. Therefore, Organizations are redesigning their supply chains to be more efficient and meet new challenges from customer point of view. This is done to continue competitiveness by more customer attention and to protect against competition. Dropping start-up costs is a huge benefit and organizations are looking for different ways to fulfill the customer requirements with a faster and more effective, efficient service.

Information Technology has a huge impact on the SCM. It is an essential part of cost reduction and a major source of SCM and procurement. In India Many small Telecom service providers in India who have hand-held systems in their service chain operations are incurring high costs. The main problem with the hands-on structure is the amount of time exhausted looking for records, data loss, inadequate safety backups and no records up gradation. This disrupts the supply chain operation of organization. This allows companies to mitigate these issues and concentrating on discovering novel markets for their services/products, discovering new partners, quickly attention on customer needs, and gaining a aggressive advantage in the market.

As a result, company can lookout the different ways to reduce comedown Supply chain and logistic costs, enhance product/service lead times, and incorporate different organizational services.

4. OBJECTIVES OF THE STUDY

The aim of this learning is to determine the impact of IT on SCM and logistic management in India's telecommunications sector. To achieve the objectives of this study, the following research objectives

- Role and Importance of IT in telecom supply chain management.
- To discover factors that supply chain affected by implementation of IT in Telecom sector.
- To discover the major involvement and benefits of IT in SCM for Telecom sector.
- To advise approaches in organizing IT inputs to improve SCM in small scale TSP's for telecom sector

5. SCOPE OF THE STUDY

Information exchange serves as an important means of survival for a company and facilitates SCM incorporation. Today, with the beginning of IT system tools and information distribution has become an important opportunity. In addition, information sharing in the supply chain has been very effective in establishing global partnerships and long-term communication, leading to the ultimate development of a company's competitive advantage. Today, companies lack information sharing, so linking actions within a company or unit within an organization is inefficient. The aim of this study is to examine and verify the usefulness of information sharing in SCM for order to increase the productivity of the organization in the Telecom industry. This study will delve deeper into the benefits and barriers of sharing information to improve supply chain integration between enterprises. (Zahra Lotfi M. M., 2013)

The another aim of this study is to provide a comprehensive synopsis of IT system in the SCM and logistics operations. The greatest achievement in SCM has been the capability to decrease the supply chain and logistic costs. This strategy comes with customer happiness, effectiveness and supportability.

6. METHODOLOGY ADOPTED

Research is finished by exploiting each from primary and secondary sources. Following are the methods of data collected:

A. Primary sources

- Data were collected using a structured questionnaire.
- Information was collected by interacting with the employees and having an exploration with the department manager of the different organizations in telecom sector.

B. Secondary sources:

- All published data available on the subject matter was consulted, i.e. the company records, journals, research books, websites, company brochures, and hand-outs, etc.

C. Survey method

- This survey use the Likert scale technique, which is commonly used for employees questioner. I use 5 levels Likert scale for IT impact on supply chain management in telecom sector. Circulated questioner having 17 questions among the employees and requested for the response.
- The format used in five-level Likert use for this survey is:
 - 1 : Highly satisfy
 - 2 : Satisfy
 - 3 : Neutral
 - 4 : Dissatisfy
 - 5 : Highly Dissatisfy

D. Participant size

- Circulated questioner among all the employees working in different department of telecom sector's organization.

7. REVIEW OF LITERATURE

This part of study provides documentary materials, an overview of Information Technology tools/applications in SCM and logistics, an explanation of SCM operations, and the Information technology benefits in SCM. This Study also presents lessons learned from IT research conducted in SCM. The principle of literature reviews is to assist to understand IT impact on supply chain and logistics.

A. Supply Chain Management

Supply chain management is the process of managing the goods from raw material to finished good and from order taken to delivery of good at customer end. By efficiently manage the supply chain, organization will reduce the final product cost. This could be happen only on effectively monitoring and controlling of supply chain system in terms of inventory control, warehouse monitoring and controlling, controlling the transportation and logistics. There are other areas of supply chain management, such as transportation, procurement, information technology, and logistics Supply chain management is an integral part of all organizations whether small or large. Flexible management of SCM operations to increase customer worth and reach to sustainable aggressive rewards. There are a variety of supply chain activities ranging from product development, inventory planning, acquisition, production and the information system needed to plan these activities. SCM is the management of information-driven operations from information acquisition to production to product development to distribution to increase customer value.

B. Functions of Information Technology

IT in any organization increases business efficiency, analyzes basic business sales, collects and provides relevant information about administrative decisions, reports trends and changes in core business activities within the organization, and reports. Maintain a communication channel. Such performance is also expected in the supply chain. IT connectors can integrate all supply chain processes into a fast, integrated, flexible and flexible system to produce large quantities of customized products at low cost.

C. IT in SCM and Logistics:

Information technology plays a vital role in supply chain management. IT system collects the information from the scattered locations and arrange in proper structured form for optimal performance of SCM and logistics. Small telecom service providers (TSPs) have the chance to incorporate the Information technology in their system to controlling the supply chain, logistic costs and process. Organizations have effective information systems that drive supply chain efficiency and effectiveness. Administrators need to use IT tools and methods to evaluate structure, environment, and supply chain management to measure cost and performance.

i. Warehouse Management Systems:

Warehouse management systems carry out activity such as planning instructions and operation on daily basis of the warehouse. This plan includes activity like material receipt, allotment of storage areas, refilling of material of expropriated areas, production list selection, order selection, and delivery of goods. These systems also track inventory in stock.

ii. Enterprise Resource Planning Systems

One of the IT applications used by organizations is Enterprise Resource Planning Systems (ERP). The ERP system is a modern business model. It is based on a computer-assisted information management system. The ERP system performs the functions of a supply chain network system using modern information technology. Functions such as asset planning, cash flow, and information flow have been successfully integrated to achieve the objective of full distribution and resource sharing. (Betty Wang (University of Nebraska - Lincoln, 2001).

iii. Radio Frequency Identification (RFID)

RFID is an IT technology used in manufacturing, transportation, supply chain management and asset management. They are used to automatically detect an object. RFID systems with radio frequency tags used to transmit resident data; tags with a different serial number for each product identification. Data transmitted to RFID can be read automatically.

iv. Flexible Manufacturing Systems

flexible production systems (FMS) technology will integtareet all the comutersystems to improve the flexibility of the SCM. The Internet facilitates the transfer of information and communication thus facilitating the rapid response of control systems. The flexibility of these systems leads to customer loyalty.

v. Point of Sale Tracking System

Point-of-sale systems are an additional function used in logisteics and SCM. Known as an Information Technology tools application client to which a scanning system and a vendor management system are linked. Goods are usually marked with a barcode and scanned by a seeing reader.

D. Benefits of IT to Supply chain management

i. Effective Information Management

Successful information management can help guarantee that a company meets the planning needs of its customers. Organization need to prioritize planning items such as timely delivery, stock expiration rates, order status, shipping tracking and acceleration, order convenience, complete ordering, customer retrieval creation, and retrieval opportunities and product changes.

ii. Helps in Decisions Support Systems

Organization requirements efficient information from their clients, information from their suppliers. Areas of Information technology that include decision support systems / information technology and delivery management functions did not provide the information required by management to make strategic decisions.

iii. Digital Order Processing System

The order processing system is the main data processing system in which all the orders from the customers and order to the suppliers processd. Customer order provides a communication message to stop the transportation process going on. Cost and efficiency of all communications can result in loss of customers or excess shipping, cost of goods and storage facilities and possible production inefficiencies resulting from frequent changes in the production line. Processing information and information systems form the basis of transport systems and management information companies.

iv. Competitive Advantages

Computer-based decision-making systems (DSS) support the process of decision-making in transport and supply chain management. To support time-based competition, firms are increasingly using information technology as a source of competitive advantage.

E. Challenges for implementation of IT in supply chain and logistics.

i. Lack of knowledge about IT benefits:

The biggest challenge for adopting IT supply chain IT tools in the telecom industry is the lack of information about the benefits of IT in the supply chain. This adoption requires fundraising and this will increase the organization's costs because a particular organization will not be ready to apply the new technology to their organization.

ii. Information overload:

Overloaded information is a major challenge during the implementation of IT in any organization because they need to collect and process large amounts of customer data, and then convert it into useful information for a customer-focused industry. (Elango, 2018)

iii. Risk in adopting correct IT tools :

In a situation where managers want to apply information technology to their organization, finalizing appropriate and accurate IT tools that can be helpful in planning their future growth will be a strategic decision. From this we can analyze which tool we can choose, what the big cost and operating costs will be and much more. (Zahra Lotfi M. M., 2013)

iv. Internal Resistance to Changing:

Any company that has made a policy of using information technology tools in supply chain management strategy recognizes that one of the

major challenges it faces is the important transformation of the internal culture needed to make the supply chain reform a success. (Gaba)

v. Change in Existing norms and policies:

Due to the implementation of the information tool in the organization need to change the thinking process of employees and managers. Changes in the role and commitment of staff in implementing IT solutions that have transformed organizational structure and processes and policies. (Elango, 2018)

vi. Financial Cost:

High cost of online services, equipment purchase costs, maintenance costs and security costs. A good amount of investment and training costs are required for the adoption and implementation of new IT technologies that pose challenges to companies using the IT tool. (Reekum, March 2008)

vii. Data integration & Data Quality:

One of the main benefits of IT is to provide a single accurate source of enterprise data. Data transfer is an important step in IT solutions. This includes transferring data from many older systems to IT tools. However, you need to get all the data first. This can be harder than expected. Information is scattered throughout the organization and can be buried in accounting systems, departmental applications, spreadsheets, and even paper.

Ensuring data quality can be a major project in itself, which involves data validation, duplication and adding non-existent values before transferring data to an IT tool. (Temjanovski, January 2014)

viii. Continuous improvement:

Using an information technology tool is not an effort that is made once the upgraded IT system is alive. The resolution must go on with emerge to support organization and technology requirement. The team needs to continue to manage the System after successful installation, troubleshooting and support new needs as they arise.(Temjanovski, January 2014)

ix. Management decision:

For business owners and leaders assigned the task of driving a digital strategy, their risk perception has a greater impact on success than anything else. Deciding to install digital tools or infrastructure may be difficult because of the anonymity it shows, but escaping the process can be a very risky approach. By understanding the psychological barriers to digital decision-making, industry stakeholders can and should promote the adoption of technology in small and medium enterprises by doing so, strengthening the backbone of the global economy. (Dineva, 2022)

8. Data collection

A structured survey approach was conducted for this survey with the help of employees working in telecom sector. The survey which I conducted is included all the departments like procurement, storage and ware house, logistic and transportation Accounts and Finance. From both the service and manufacturing industry. A simple questionnaire was used for conducting this survey and circulated among them for their valuable feedback. I Divided all the questions into two parts:

- A: General Information (Contains 6 Questions)
- B: Specific questions related to impact of IT in supply chain (Contains 17 Questions)

Total questions were distributed among the targeted employees out of this 44 participants responded. The respond from all of them was much excellent, accordingly, the questions were circulated to the target group to respond in different organization in Telecom sector.

Participants were fully informed that participating in the study was voluntary, respecting their confidentiality and anonymity, that the study results would not damage their integrity, and in the end, the study would be conducted independently and impartially for learning purposes.

Research paper studies for Preparing questioner.

- International Journal of Engineering Research and Technology. ISSN 0974-3154 Volume 7, Number 1 (2014), pp. 41-48 “Impact of Information Technology on Supply Chain of Indian Industries” by Vikas Kumar
- The impact of IT in SCM within an organization by Kikaro Nyagawani.
- A Survey Based Analysis of IT Adoption and 3PLs’ Performance. Supply Chain Management: An International Journal. Vol. 17, Issue 2, February by Pietro Evangelista(University of Naples Federico), Riccardo Mogre (University of Hull), Alessandro Perego (Polytechnic Institute of Milan)

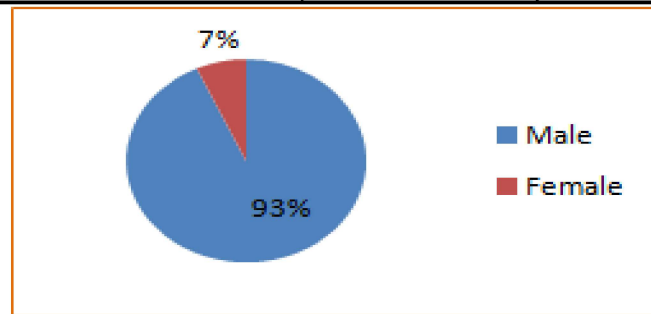
9. Data analysis

A. Part: General Questions

i. Gender

TABLE 1

Particulars	No. of Participant	Percentage
Male	55	93%
Female	4	7%

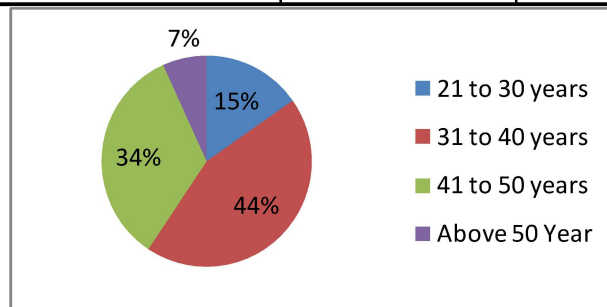


ANALYSIS: From the above diagram shows in the respondent the larger part of male participants i.e. 93%.

ii. Age group of Employees

TABLE 2

Particulars	No. of Participant	Percentage
21 to 30 years	9	15%
31 to 40 years	26	44%
41 to 50 years	20	34%
Above 50 Year	4	7%

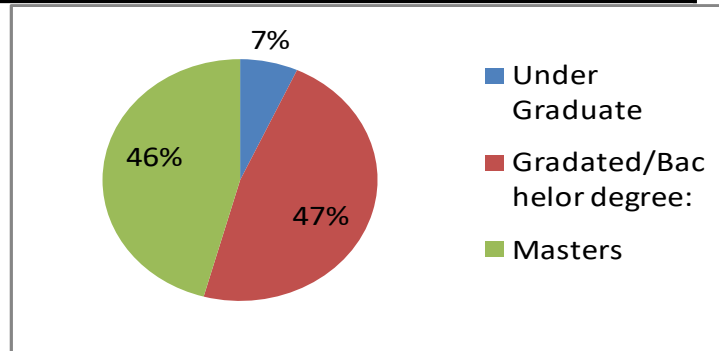


ANALYSIS: As per the above pie chart it shows the maximum number of participant are of age between 31-40 years i.e. 44%.

iii. Education:

TABLE 3

Particulars	No. of Participant	Percentage
Under Graduate	4	7%
Graduated/Bachelor degree	28	47%
Masters	27	46%

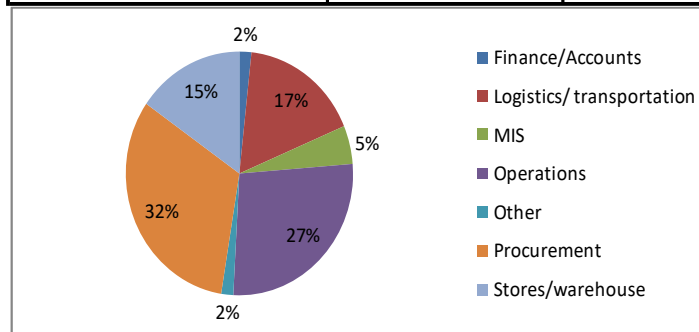


ANALYSIS: As per the above pie chart it shows the maximum number of participant graduated i.e. 47%.

iv. Department

TABLE 4

Particulars	No. of Participant	Percentage
Finance/Accounts	1	2%
Logistics/ transportation	10	17%
MIS	3	5%
Operations	16	27%
Other	1	2%
Procurement	19	32%
Stores/warehouse	9	15%

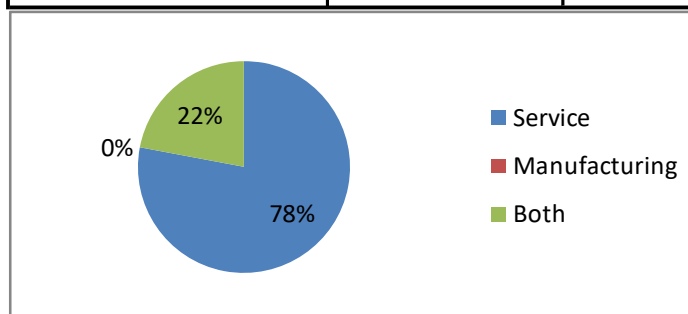


ANALYSIS: As per the above pie chart it shows the maximum number of participant are from Procurement and operations i.e. 32% each.

v. Industry

TABLE 5

Particulars	No. of Participant	Percentage
Service	46	78%
Manufacturing	0	0%
Both	13	22%

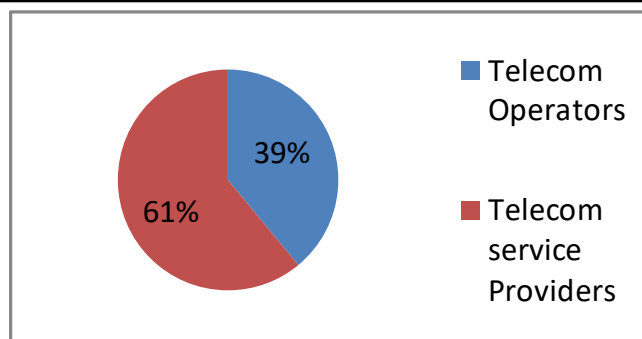


ANALYSIS: As per the above pie chart it shows the 78% of participants are from services industry.

vi. Organization Type

TABLE 6

Particulars	No. of Participant	Percentage
Telecom Operators	23	39%
Telecom service Providers	36	61%



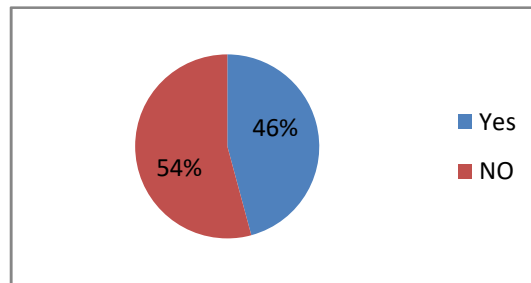
ANALYSIS: Maximum participant from TSP's i.e 61%

B. Part: Specific Questions

1) Are your organization use any IT tool for SCM

TABLE-7

Particulars	No. of Participant	Percentage
Yes	27	46%
NO	32	54%



ANALYSIS: 46% are confirm that their organization is using IT tools for managing their supply chain and logistics.

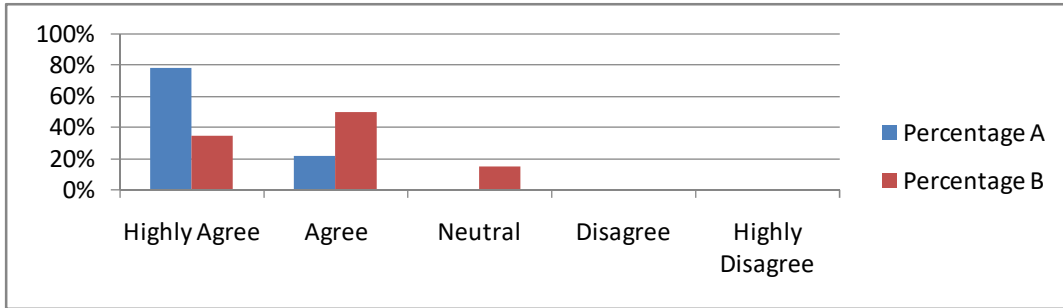
For below all the responses is divided in two parts:

- ❖ **A:**Working in the organization where IT tool using to manag SCM
- ❖ **B:**Working in the organization where IT tool not using in SCM

2) Business gets profit from the applying IT tools in the SCM and logistics management.

TABLE -8

Scale	No. of Participant	Percentage	No. of Participa	Percentage
	A	A	B	B
Highly Agree	21	78%	11	34%
Agree	6	22%	16	50%
Neutral	0	0%	5	16%
Disagree	0	0%	0	0%
Highly Disagree	0	0%	0	0%

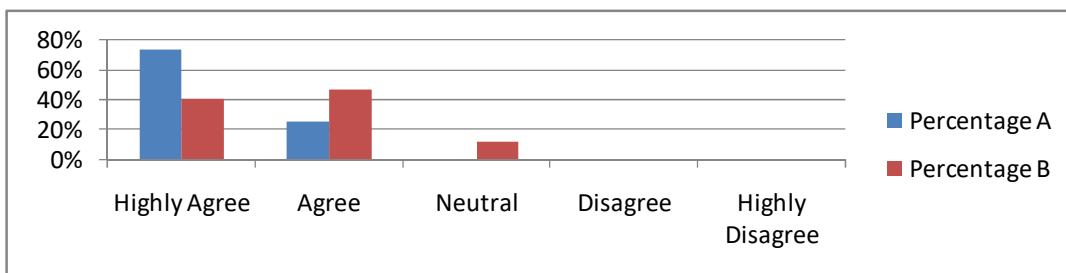


ANALYSIS: As per the above graph participant from Category A is maximum responses are highly agreeing on that IT in supply chain will get benefit.

3) IT system support to organization for fast and quick preparation of order processing to meet the customer expectation as per timeline.

TABLE 9

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	20	74%	13	41%
Agree	7	26%	15	47%
Neutral	0	0%	4	13%
Disagree	0	0%	0	0%
Highly Disagree	0	0%	0	0%

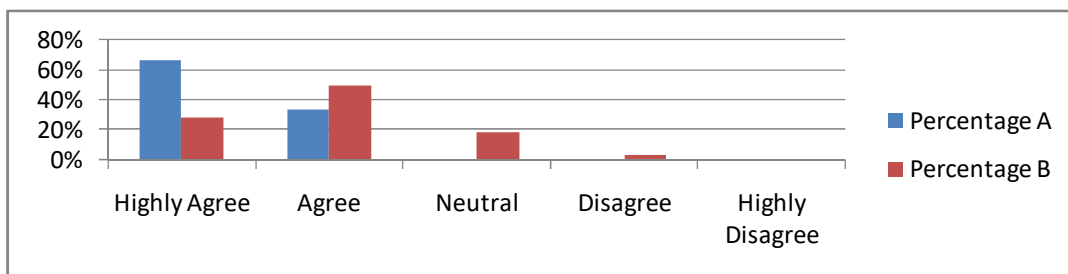


ANALYSIS: 74% participants highly agreed that IT system make order processing in faster way for Cat.-A and 41% for Cat.-B.

4) System assists efficiency and effectiveness in tasks

TABLE 10

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	18	67%	9	28%
Agree	9	33%	16	50%
Neutral	0	0%	6	19%
Disagree	0	0%	1	3%
Highly Disagree	0	0%	0	0%

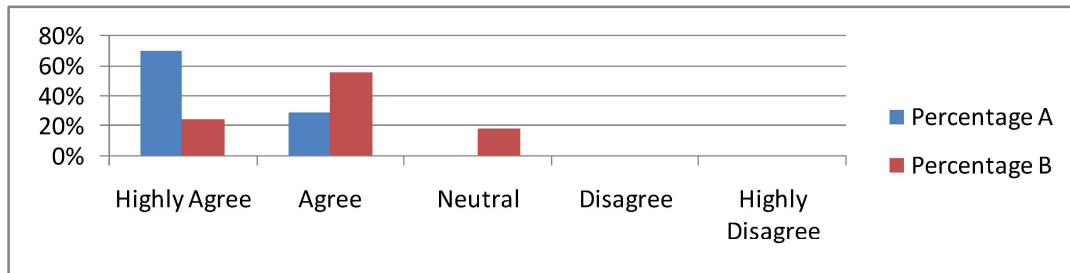


ANALYSIS: It is clear from this analysis that 67% accept IT will increase system efficiency and effectiveness on highly agree fro Cat.-A and 28% for Cat-B.

5) Information Technology in supply chain has been reduce the Serving time and cost

TABLE 11

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	19	70%	8	25%
Agree	8	30%	18	56%
Neutral	0	0%	6	19%
Disagree	0	0%	0	0%
Highly Disagree	0	0%	0	0%

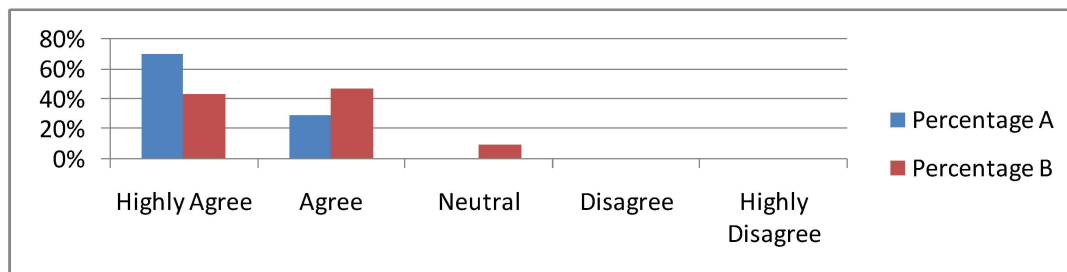


ANALYSIS: 70% participant accept that IT in supply chain reduce the long term time and cost for Cat-A and 25% for Cat-B as highly agree.

6) Information systems improve the efficiency of operation

TABLE 12

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	19	70%	14	44%
Agree	8	30%	15	47%
Neutral	0	0%	3	9%
Disagree	0	0%	0	0%
Highly Disagree	0	0%	0	0%

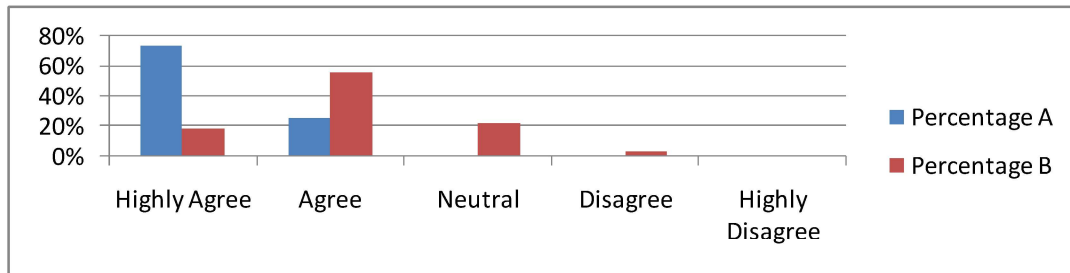


ANALYSIS: 70% participant accept that IT will improve efficiency in SCM in Cat-A and 44% for Cat-B.

7) Assist efficient and effective management of stock control

TABLE 13

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	20	74%	6	19%
Agree	7	26%	18	56%
Neutral	0	0%	7	22%
Disagree	0	0%	1	3%
Highly Disagree	0	0%	0	0%

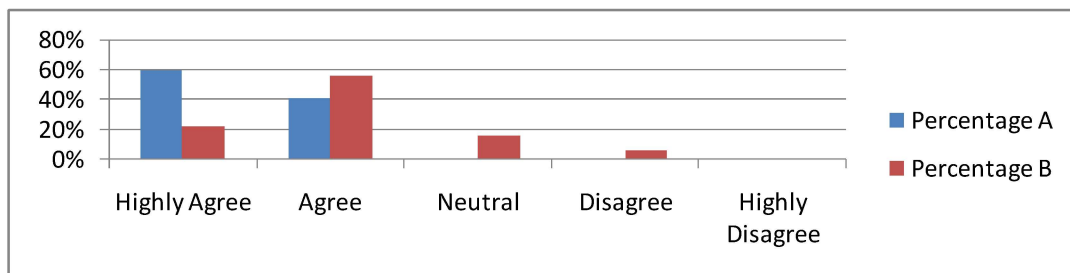


ANALYSIS: 74% participant accept that it help on stock control for Cat-A and 19% for Cat-B.

8) The presence of IT tools in the organization has prejudiced the synchronization between the company and their partners.

TABLE 14

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	16	59%	7	22%
Agree	11	41%	18	56%
Neutral	0	0%	5	16%
Disagree	0	0%	2	6%
Highly Disagree	0	0%	0	0%

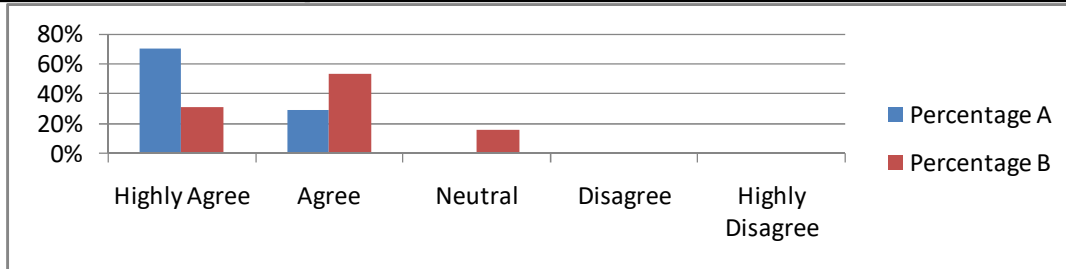


ANALYSIS: 59% accept with highly agree that coordination between supplier and organization improved for Cat-A and 22% for Cat-B.

9) Training should be provide to the employees for using of IT tools.

TABLE 15

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	19	70%	10	31%
Agree	8	30%	17	53%
Neutral	0	0%	5	16%
Disagree	0	0%	0	0%
Highly Disagree	0	0%	0	0%

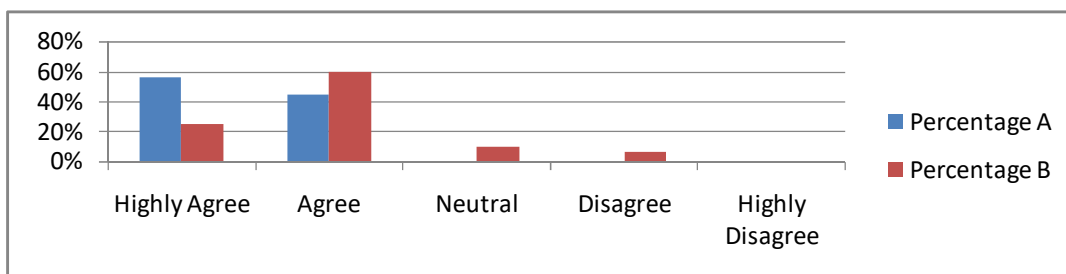


ANALYSIS: 70% participant accept as highly agree on need for training of employee on IT tool in Cat-A and 31% Cat-B.

10) IT system supports the synchronization proficiently across suppliers and product lines.

TABLE 16

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	15	56%	8	25%
Agree	12	44%	19	59%
Neutral	0	0%	3	9%
Disagree	0	0%	2	6%
Highly Disagree	0	0%	0	0%

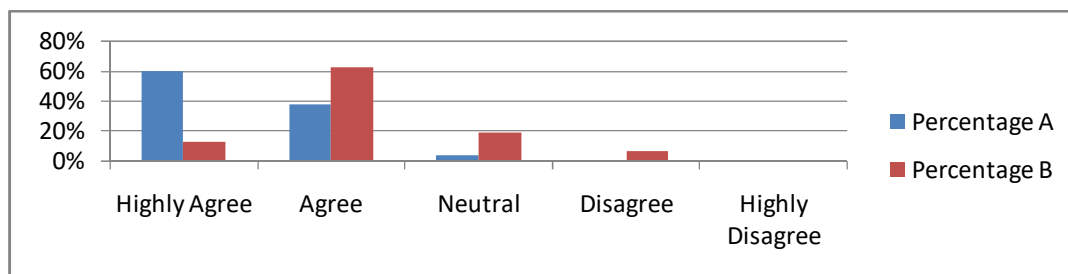


ANALYSIS: 56% participant is gone as highly agree with efficiency across supplier and product line for Cat-A and 25% for Cat-B.

11) IT system will support the organization to launch new product in industry/market.

TABLE 16

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	16	59%	4	13%
Agree	10	37%	20	63%
Neutral	1	4%	6	19%
Disagree	0	0%	2	6%
Highly Disagree	0	0%	0	0%

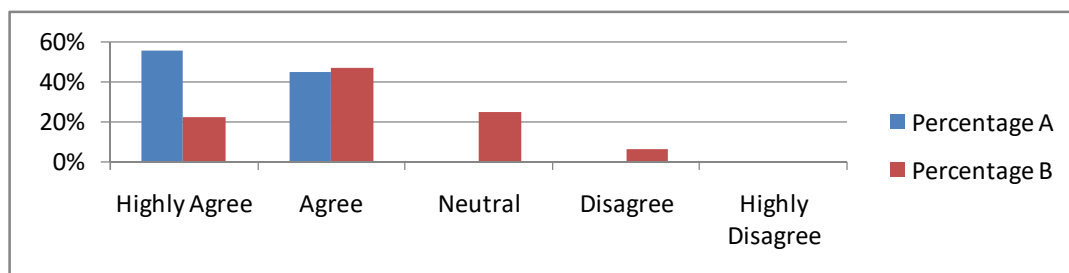


ANALYSIS: 59% participant accept that IT will support the organization to launch new product in industry for Cat-A and 13% for Cat-B.

12) IT system support in organization's to provide sufficient information to top management accordingly they will take decision to improve the organization performance.

TABLE 17

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	15	56%	7	22%
Agree	12	44%	15	47%
Neutral	0	0%	8	25%
Disagree	0	0%	2	6%
Highly Disagree	0	0%	0	0%

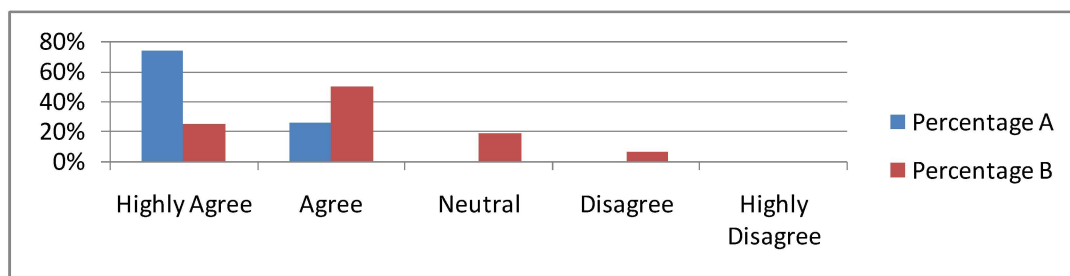


ANALYSIS: 56% participant accept that IT will provide sufficient information for careful decision for Cat-A and 22% for Cat-B.

13) IT system will support to organization to select supplier on the basis of their quality.

TABLE 18

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	20	74%	8	25%
Agree	7	26%	16	50%
Neutral	0	0%	6	19%
Disagree	0	0%	2	6%
Highly Disagree	0	0%	0	0%

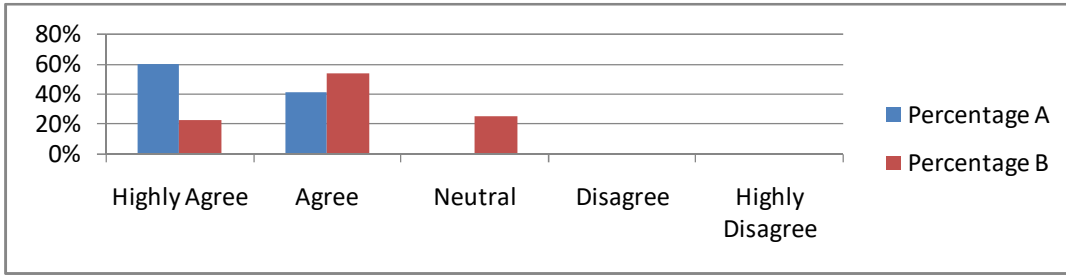


ANALYSIS: 74% participant accept that IT will help to select quality supplier for Cat-A and 25% for Cat-B.

14) Information systems help to measure and evaluate customer satisfaction

TABLE 19

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	16	59%	7	22%
Agree	11	41%	17	53%
Neutral	0	0%	8	25%
Disagree	0	0%	0	0%
Highly Disagree	0	0%	0	0%

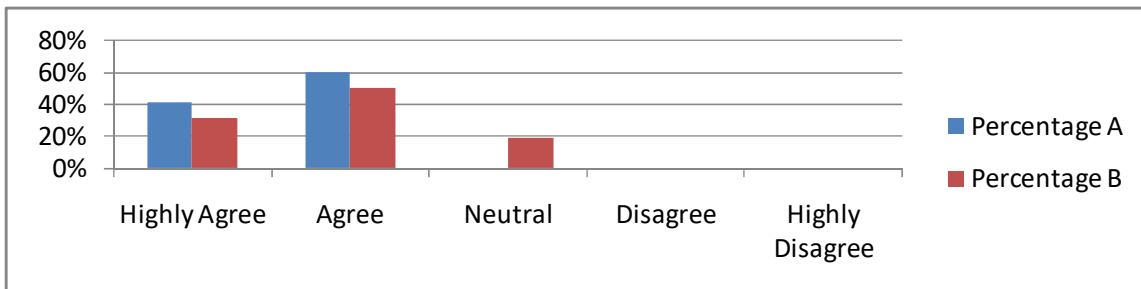


ANALYSIS: 59% participant says that IT system help to understand customer satisfaction for Cat-A and 22% for Cat-B.

15) Information systems manage material requirement of our facility

TABLE 20

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	11	41%	10	31%
Agree	16	59%	16	50%
Neutral	0	0%	6	19%
Disagree	0	0%	0	0%
Highly Disagree	0	0%	0	0%

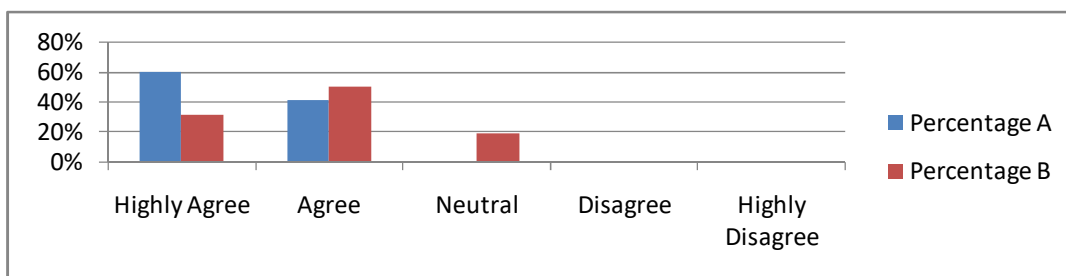


ANALYSIS: 41% participant accept that IT will help to finalize the material requirement as per demand in market fro Cat-A nad 31% for Cat-B.

16) IT systems support to organization in terms of quick information sharing with in organization.

TABLE 21

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	16	59%	10	31%
Agree	11	41%	16	50%
Neutral	0	0%	6	19%
Disagree	0	0%	0	0%
Highly Disagree	0	0%	0	0%

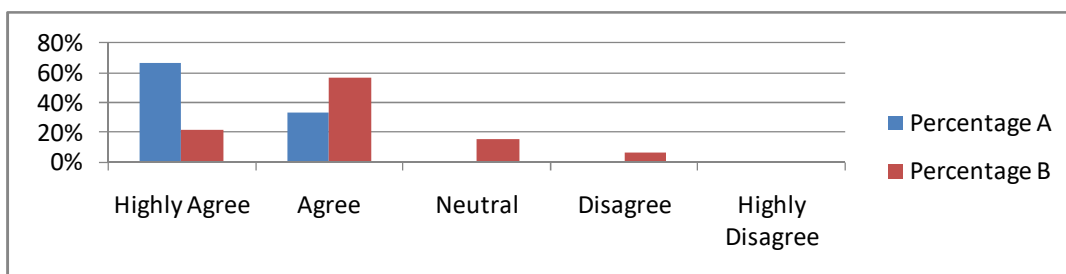


ANALYSIS: 59% participant accept that IT will help to share the information within department for Cat-A and 31% for Cat-B.

17) IT System support to monitoring and controlling of market change environment in Supply chain and logistic.

TABLE 22

Scale	No. of Participant A	Percentage A	No. of Participa B	Percentage B
Highly Agree	18	67%	7	22%
Agree	9	33%	18	56%
Neutral	0	0%	5	16%
Disagree	0	0%	2	6%
Highly Disagree	0	0%	0	0%



ANALYSIS: 67% participant says that IT will help to monitor change in market scenario for Cat-A and 22% for Cat-B.

10. Findings

- ✓ Maximum participant known about that IT implementation is beneficial for any organization to optimize the time and cost but the participant from category A are highly agreed is 43% more than the category B organizations because they are using the IT in SCM and well understand the importance of IT in Supply chain.
- ✓ It will accelerate the order processing, information flow in the organization also it will help to control the stock and logistics.
- ✓ It help to maintain better communication between partners and costumers.
- ✓ The vital impact of IT implementation in SCM is helping to take critical decision on the basis of data available in IT system.
- ✓ Also organization should always on up-gradation mode as per technology advancement and training for the same should be provided to engaged employees.
- ✓ It also help organization to understand the market environment and help to introduce the new product/service in market as per market scenario.
- ✓ IT system also help organization to finalize the capable partners/suppliers on the basis of past information.
- ✓ This will support in material planning to avoiding over or under stocking of finish good or raw material.
- ✓ It seems that the category B participants are having natural and disagree on some points like, it increase efficiency and effectiveness, effectiveness of stock control, it will help to introduce the new product in market and understand the market scenario. Because they are not working on IT tool in SCM
- ✓ Important information is the increase in communication across all different supply chain department. Information flows from the sales and planning team to the procurement team and transportation team using IT tools such as ERP, WMS etc.

11. Conclusion

Generally, companies should adopt the use of IT in the supply chain in order to reduce costs and increase revenue. As per the current high demand of internet, voice, video call and other more Value added services and predict future demand of market the information technology will support to small telecom service provider to achieve the above said targets. In order to meet the current level of demand, existing systems should may not facilitate to organization the determination of the current level of demand and predict future demands to prevent stock depletion or stock outages, this gap will fill by the support of information technology in the organization.

Most TSPs do not consider the supply chain to be an important function in the organization and procurement is seen as a financial activity. TSPs should consider using the supply chain and use Information Technology to improve their performance as this will save companies significantly. Companies should also use IT to plan their purchasing activities and engage their stakeholders.

The results also showed how important Information Technology is in an organization that uses SCM and logistics. Most of the supply chain in TSPs is not transparent as managers are known for conflicts of interest. This results in negative profits, poor customer service due to delays in product information for customers and long lead time. With an IT user, all of this can be prevented and companies can enjoy long-term benefits such as improved sales revenue and reduced launch costs.

12. Limitations

- The study is confined to a couple of employees in working in telecom sector.
- The study was confined to the limited period.
- Frequent visits to various organization for collecting information were not possible so I had prepared a Google form and circulated it to all known in the organization.
- Interaction with employees is limited because of their scheduled time and restriction due to COVID-19 in some office premises .
- The information provided by respondents may be biased.
- The study is based on the 59 responses, that may be differ in case of higher respondent.
- Study is not recommending any specific IT tool for supply chain management further study can recommendation the specific tool for SCM.
- The study is limited for the IT impact of an organization internally, the future study will show how the IT will make impact on organization externally.

13. Recommendations:

Study recommends that Small service providers especially in the telecommunications sector should use IT in their supply chain operations to improve efficiency. Sales and customer service levels have improved over time with the adoption of IT in the supply chain.

Organizations should integrate supply chain function and the other functions involved in their operations in order to improve overall efficiency and be more competitive than competitors through better prices and products.

Organizations should integrate supply chain function and the other functions involved in their operations in order to improve overall efficiency and be more competitive than competitors through better prices and products.

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Questioner on Impact of IT in supply chain and logistic management

➤ General Questions

- 1) Name:
- 2) Gender:
 - Male
 - Female
- 3) Age:
 - 21 to 30 years
 - 31 to 40 years
 - 41 to 50 years
 - Above 50 Year
- 4) Education:
 - Under Graduate
 - Gradated/Bachelor degree:
 - Masters Degree:
- 5) Department:
 - Procurement
 - Stores/warehouse
 - Logistics/ transportation
 - Finance/Accounts
 - MIS
 - Operations
- 6) Industry
 - Service
 - Manufacturing
 - Both
- 7) Organization Type
 - Telecom Operators
 - Telecom service Providers
- 8) Are your organization use any IT tool for SCM
 - Yes
 - No

➤ **Specific Questions:**

- 1) Organization gets benefits from the application of information technology on supply chain management.
 - Highly Agree
 - Agree
 - Neutral
 - Disagree
 - Highly Disagree
- 2) Use of Information Technology in supply chain activities help in the preparation of order processing to be faster and quick so as to meet deadlines as per required schedules.
 - Highly Agree
 - Agree
 - Neutral
 - Disagree
 - Highly Disagree
- 3) The system assists efficiency and effectiveness in tasks
 - Highly Agree
 - Agree
 - Neutral
 - Disagree
 - Highly Disagree
- 4) Information Technology in supply chain has been reduce the Serving time and cost
 - Highly Agree
 - Agree
 - Neutral
 - Disagree
 - Highly Disagree
- 5) Information systems improve the efficiency of operation
 - Highly Agree
 - Agree
 - Neutral
 - Disagree
 - Highly Disagree
- 6) Assist efficient and effective management of stock control.
 - Highly Agree
 - Agree
 - Neutral
 - Disagree
 - Highly Disagree

- 7) The availability of application of IT in the organization has influenced the coordination between the organization and suppliers.
- Highly Agree
 - Agree
 - Neutral
 - Disagree
 - Highly Disagree
- 8) The availability of application of IT in the organization has influenced the coordination between the organization and suppliers.
- Highly Agree
 - Agree
 - Neutral
 - Disagree
 - Highly Disagree
- 9) The employees should be given the training in using computer software in order to develop and increase knowledge on Information Technology in SCM in the organization..
- Highly Agree
 - Agree
 - Neutral
 - Disagree
 - Highly Disagree
- 10) Information systems help to introduce new product and service in our market.
- Highly Agree
 - Agree
 - Neutral
 - Disagree
 - Highly Disagree
- 11) Information systems help to provide sufficient information to support careful decision making
- Highly Agree
 - Agree
 - Neutral
 - Disagree
 - Highly Disagree
- 12) Information systems help to select supplier based on their quality
- Highly Agree
 - Agree
 - Neutral
 - Disagree
 - Highly Disagree
- 9) 13. Information systems help to measure and evaluate customer satisfaction
- Highly Agree
 - Agree

- Neutral
- Disagree
- Highly Disagree

14. Information systems manage material requirement of our facility

- Highly Agree
- Agree
- Neutral
- Disagree
- Highly Disagree

15. Information systems help to quickly share information within our firm

- Highly Agree
- Agree
- Neutral
- Disagree
- Highly Disagree

16. Information systems help to monitor change in our market condition

- Highly Agree
- Agree
- Neutral
- Disagree
- Highly Disagree