

# Impact of Information and Communication Technology on Cargo Industries - A Study in Bengaluru

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## ABSTRACT

The modern trend towards E-commerce and computerization that they give you an idea about the way cargo industries (Trucking and freight services), this paper establishes an "Impact of information and communication technology on cargo industries" In terms of commerce, logistics and fleet management, and proposes invented mechanisms of influence. The authors note that the speedy increase of E-commerce and freight fleet management system compose it not easy to arrive next to firm, statistics-based conclusion in relation to their impact of cargo industries, however suggest that more complicated government management of transportation demand over and above freight fleet management systems could call off out the pessimistic impact of E-commerce on road transportation.

**KEYWORDS:** Information and Communication Technology, E-Commerce, Fleet Management

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## 1.1. INTRODUCTION

ICT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit and retrieve information, securely. Newly it's become popular to broaden the term to explicitly include the sector of transmission in order that people tend to use the abbreviation ICT (Information and Communications Technology (Greenwood, 1997). Due to the widespread adoption of the availability sequence view by commercial enterprises everywhere the planet, the business management providers are increasingly required to supply global logistics service packages to better satisfy customer needs. Information and Communication Technologies (ICT) play a key role during this process, assuring the linkages between chain participants also as a simpler control of your time, cost, and quality of the service rendered. Nevertheless, introduction of ICT isn't equally distributed within the industry. In the case of manufacturing and production, crucial business links and interlinks lines seem to be comparatively slow in implementing ICT as compared with parcel delivery companies or large freight forwarders. The increasing importance of ICT for logistics also as for the supply Chain Management (SCM) presents business world with two alternatives: either to survive during a low-cost world of business providers or to pursue the expensive and problematic path of becoming value-added providers through a thorough use of ICT. Introduction of ICT in logistics provides management an integrated capacity of assurance and reliable communication advantage at every

stage of operations, which encompasses activities like cargo tracing, answering customers complain, inquiry billing and information management (Baily 2005). The use of E-mail and other related bulk Short Message Services (EMS) that comes with the appliance and adoption of data and technology provides quick and documented communications with customers and other important stakeholders. This as compared with manual operations besides providing customer value saves costs and time in operations an excellent deal.

## 1.2. STATEMENT OF PROBLEM:

Logistic firms have come of age and as such, competition has alerted logistic firms to look for innovations that will keep their customers and even win more. Because of the need for efficiency and effectiveness within the logistic sector, the web is introduced and used mostly for commercial purpose through internet trading and knowledge technology. The adoption of data technology within the logistic sector is due to the very fact that, linguistic barriers needed to be put to an end to enable easy and cheaper communication during transaction. It is to foster customer relationship, increase customer satisfaction, improve operational efficiency, reduce the running cost, reduce transaction time, give logistic firm competitive edge, and provide security to investors fund and promotion of other financial services and movement of products across the world.

**1.3. REVIEW OF LITERATURE:**

**Adithya shetty (2015):** India is a place for development it is providing space for the new technologies and business models which is creating a new revolution all time every time. The outcomes of logistics decision influence performance in several ways. The challenges encountered by logistics management in India are growing at a rapid speed, giving an equal competition with the actual growth of the industry. It is also identified that critical inventory logistics services, innovative packing solution.

**Kwadawo Asenso (2012):** Worked on, "The importance of ICT s in the provision of information agricultural productivity and rural income in Africa". This paper looks at the evidence on the role of emerging ICT within the agricultural sector in Africa with lessons from Asia with reference to farmer’s access to information and other services that would help improve agricultural productivity, practices, and farmer livelihood. Author suggests that countries should avoid monopoly situation and encourage pluralistic to induce competition for higher efficiency and lower costs to consumers. It was also indicated that the project improved the livelihood of rural farmers mainly by strengthening human capital to increase financial capital through improve access to information on better agricultural practices and market information.

**1.4. OBJECTIVES OF THE STUDY:**

- To study how use of the ICT on customer services delivery system offer performance of cargo industries.
- To study the impact of technology on logistics & supply chain management.
- To study various technology used in cargo industries.
- To study the impact of Information and communication technology in cargo industries.
- To give suggestions based on findings of the study.

**1.8. DATA ANALYSIS AND INTERPRETATION:**

Questionnaires are prepared by taking 15 various questions based on the Impact of Information and Communication Technology and given to the respondents to fill, the following data have obtained.

**Table -1.8.1 Are you aware about Information and Communication Technology?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	41	82%	82%	82%
No	3	6%	6%	88%
May be	6	12%	12%	100%
TOTAL	50	100%	100%	

From the above table 82% of the respondents aware about the Information and Communication Technology and 12% of respondents may be and only 6% of respondents not aware about Information and Communication Technology.

**Table -1.8.2 Do you have separate department for handling and managing ICT?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	20	41%	41%	41%
No	23	47%	47%	88%
May be	6	12%	12%	100%
Not responding	1	Nil	Nil	
Total	50	100%	100%	

From the above table 23 respondents are not handling and managing the separate department about the Information and Communication Technology, and 20 respondents are handling and managing the separate department about ICT, 6 respondents are may be and 1 respondent are not responding.

**1.5. RESEARCH METHODOLOGY (OR) SAMPLING:**

➤ **SAMPLING UNITS:**

- Management
- Workforce / Employees
- Vendors / Suppliers

➤ **SAMPLE DESIGN:**

Collected data from employees working indifferent industries Bangalore in Karnataka

➤ **COMPOSITION OF SAMPLING SIZE:**

50 Employees working in different industries

➤ **SAMPLE TECHNIQUE:**

Descriptive and analytical method has been adopted to find out the impact of Information and communication technology on their business.

**1.6. SOURCES OF DATA COLLECTION:**

Both the sources of data are used I.e.,

➤ **PRIMARY DATA:**

The data will be collected directly from the number of respondents through survey method with the structured questionnaire.

➤ **SECONDARY DATA:**

In the study the secondary data is collected through various sources as from Internet, Published sources viz, magazines, journals and websites.

**1.7. LIMITATIONS OF THE STUDY:**

- The study on the impact of information and communication technology at cargo industries.
- Analysis of the study depends upon the information collected from the cargo industries.
- The study is only limited Bangalore cargo industries.

**Table -1.8.3 Do you agree that ICT is Speedy working?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Strongly disagree	2	4%	4%	4%
Disagree	1	2%	2%	6%
Neutral	10	20%	20%	26%
Agree	32	64%	64%	90%
Strongly agree	5	10%	10%	100%
TOTAL	50	100%	100%	

By analysing the above table among 50 respondents 32 respondents are representing 64% agreed that they have an ICT is speedy working, whereas 10 respondents are neutral and 5 respondents strongly agreed and 2 respondents strongly disagree, and only 1 respondent disagree the same statement.

**Table -1.8.4 Do you agree that ICT is help to effective working in organization?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Strongly disagree	2	4%	4%	4%
Disagree	3	6%	6%	10%
Neutral	6	12%	12%	22%
Agree	32	64%	64%	86%
Strongly agree	7	14%	14%	100%
Total	50	100%	100%	

From the above table we can infer that 64% of the employees agree with effective working of ICT in the organization where as 10% of the employees do not agree with the same. So it can be said that there is a need to improve the situation such that the rest 10% employees are satisfied.

**Table -1.8.5 Are you satisfied to adoption of ICT at your company?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Highly satisfied	7	14%	14%	14%
Satisfied	30	60%	60%	74%
Neutral	8	16%	16%	90%
Not satisfied	3	6%	6%	96%
Not at all satisfied	2	4%	4%	100%
Total	50	100%	100%	

From the above we can inferred that 60% of the respondents agreed that they satisfied with adaption of ICT in business, where as 16% of the respondents neutral and 14% of the respondents agreed that they are highly satisfied with the same statement, and 4% of the respondents not at all satisfied.

**Table -1.8.6 Implementation of ICT has been benefited to your business?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Strongly agree	8	16%	16%	16%
Agree	34	68%	68%	84%
Neutral	6	12%	12%	96%
Disagree	2	4%	4%	100%
Strongly disagree	0	0%	0%	0%
Total	50	100%	100%	

From the Above table, it is analysed that 68% of the respondents agreed that implementation of ICT has been benefited to business, 16% of the respondents replied strongly agreed about the above statement, and 12% of the respondents are replied to neutral, and 4% of the of the respondents few are not agreed the above statement.

**Table -1.8.7 ICT has affected to your business?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Strongly agree	4	8%	8%	8%
Agree	23	46%	46%	54%
Neutral	13	26%	26%	80%
Disagree	10	20%	20%	100%
Strongly disagree	0	0%	0%	0%
Total	50	100%	100%	

From the above table, it is analysed that 46% of respondents agreed that ICT has affected to business compared 26% of respondents are neutral to the above statement and 20% of respondents disagreed with the same statement, and only 8% of respondents strongly agreed to ICT has affected to the business.

**Table -1.8.8 ICT has increasing profit position in your business?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Strongly agree	7	14%	14%	14%
Agree	31	62%	62%	76%
Neutral	11	22%	22%	98%
Disagree	1	2%	2%	100%
Strongly disagree	0	0%	0%	0%
Total	50	100%	100%	

By analyzing the above table among 50 respondents 62% of them agreed the ICT has increasing the profit position on business, 22% of the respondents replied are neutral and 14% of respondents strongly agreed about the above statement, and 2% of respondents not agreed that the above statement.

**Table -1.8.9 What kind of services used in your organization?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Tracking service	6	12%	12%	12%
Air service	1	2%	2%	14%
Railway service	0	0%	0%	0%
All the above	15	30%	30%	44%
Other service	28%	56%	56%	100%
Total	50	100%	100%	

From the above table among 50 respondents 28 respondents using other services, 15 respondents using the all the above service system and 6 respondents are tracking service and only 1 respondent are using air service system.

**Table -1.8.10 ICT has time consuming to your business?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Strongly agree	6	12%	12%	12%
Agree	21	43%	43%	55%
Neutral	17	35%	35%	90%
Disagree	5	10%	10%	100%
Strongly disagree	0%	0%	0%	0%
Not responding	1	0%	0%	
Total	50	100%	100%	

Table indicates that out of 50 employees 21 respondents agreed about the ICT has time consuming the business and 17 respondents are replied neutral and 6 respondents strongly agreed about the above statement, 5 respondents are disagreed in above statement and 1 respondents is not responding.

**Table -1.8.11 Are you satisfied to using ICT is easy to order the products?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Highly satisfied	9	18%	18%	18%
Satisfied	30	60%	60%	78%
Neutral	8	16%	16%	94%
Not satisfied	2	4%	4%	98%
Not at all satisfied	1	2%	2%	100%
Total	50	100%	100%	

From the above table, it is inferred that 30 respondents satisfied to using the ICT is easy to order the products, 9 respondents highly satisfied from the above statement and 8 respondents are replied in neutral, 2 respondents not satisfied to same statement and only 1 respondent not at all satisfied to about the above statement.

**Table -1.8.12 ICT has been part of the company strategy?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Strongly disagree	3	6%	6%	6%
Disagree	2	4%	4%	10%
Neutral	10	20%	20%	30%
Agree	26	52%	52%	82%
Strongly agree	9	18%	18%	100%
Total	50	100%	100%	

From the above table, it is analysed that 26 respondents agreed that information and communication technology has been part of company strategy, 10 respondents are replied in neutral and 9 respondents strongly agreed that above statement and 3 respondents strongly disagreed, 2 respondents disagreed about the above statement.



**Table -1.8.13 Are you satisfied with your communication infrastructure network?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Highly satisfied	9	18%	18%	18%
Satisfied	27	54%	54%	72%
Neutral	12	24%	24%	96%
Not satisfied	2	4%	4%	100%
Not at all satisfied	0	0%	0%	0%
TOTAL	50	100%	100%	

From the above table it is analysed that opinion about the employees, 27 respondents out of 50 satisfied to communication network infrastructure, 12 respondents are neutral and 9 respondents are highly satisfied the above statement and only 2 respondents are not satisfied.

**Table -1.8.14 ICT is Easy to use?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Strongly disagree	2	4%	4%	4%
Disagree	2	4%	4%	8%
Neutral	9	18%	18%	26%
Agree	31	62%	62%	88%
Strongly agree	6	12%	12%	100%
Total	50	100%	100%	

From the above table, it is analysed that among 50 respondents, 31 respondents agreed that ICT is easy to use, 9 respondents are replied neutral and 6 respondents strongly agreed the above statement and 2 respondents are both disagree as well strongly disagree.

**Table -1.8.15 ICT is easy to make the job?**

Parameter	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	33	69%	69%	69%
No	5	10%	10%	79%
May be	10	21%	21%	100%
Not responding	2	0%	0%	0%
Total	50	100%	100%	

From the above table it is analysed that among 50 respondents, 33 respondents opinion is ICT is easy to made the job and 10 respondents opinion is the may be and only few are not agreed that the above statement that is 5 respondents not agreed and 2 respondents are not responding.

**1.9. SUGGESTIONS:**

- Major transportation in India is all the way through open trucks therefore there is raise in damage/loss. As a result bunged up trucks like canters and container transportation will be a better substitute.
- Modern technological device called GPRS should be used in transporting vehicles, so that customers can track the vehicle.
- In view of the fact that majority of the customers are facing the problem of consignment tracking hence a tracking tool called GPRS system should be adapted to measure, record and transmit parameter similar to point in time, date, speed and place to the through centre by means of the confined GSM/GPRS network. The composition robotically switches over to SMS wherever GPRS coverage is not available.
- It should be adopting update software in trend services technology.
- Advances in technology can now make it possible to respond to specific needs, and for transport users by using innovative technologies such as Automation, Robotics, wearable technology, Drones ,Self-driving vehicles, Cloud computing, Internet of things

**1.10. CONCLUSTION:**

Logistics firms may understand the need to manage information effectively and the importance of integrating

with other participating logistics organisations in order to achieve efficient functioning of several activities including inbound and outbound transportation, order procurement and fleet management, in order to streamline the physical product flows of information and communication technology systems to logistics, since they make available the right information at the right time, at the right place to the right person, the finding support the fact that “Impact of Information and Communication Technology on cargo industries”.

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