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Emerging Issues and New Challenges in the Mangement of Logistics Sector-an Empirical Analysis

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Abstract: Indian logistics industry has been experiencing a faster growth rate in logistics sector. The scope of logistics process i.e. between the point of origin and the point of consumption is the conceptualized as covering a firm's suppliers and its customers of SCM. Especially the online marketing created a new era for logistics sector. *Example: Amazon, Snapdeal, Flipkart etc.* Logistics is a "process of planning, implementing, and controlling the efficient, effective flow andstorage of goods, services, and related information from point of origin to point of consumption for the purpose of conforming to customer requirements." This paper connotes through Analysis of effect on coordinations exercises into logistics process i.e. between the point of origin and the point of consumption is the conceptualized as covering a firm's suppliers and its customers of SCM.

Most activities of logistics services are bi-direction. The logistics industry was defined with the role of future development in customer oriented services. The present paper explicits that the logistics management is a strong system which needs a clear and planned process which configures and assists the logistics planners to come across various applications. With suitable logistics, products should be of a better presentational superiority, could possibly be cheaper and have longer shelf life.

Keywords: logistics activities, company strategy, supply chain management.

INTRODUCTION

Indian logistics industry has been experiencing a faster growth rate in logistics sector. Especially the online marketing created a new era for logistics sector. Information systems include modelling and management of decision making, and more important issues are tracking and tracing Logistics is a "process of planning, implementing, and controlling the efficient, effective flow and storage of goods, services, and related information from point of origin to point of consumption for the purpose of conforming to customer requirements." The logistics management uses different techniques to improve its moving, speed of delivery,

service quality, load maintenance, usage facilities, energy saving and so on. Logistics circulation is an essential of business activities and sustaining competitiveness, however, to conduct and manage a large company is cost consuming and not economic. Therefore, alliance of international industries could save working costs and cooperation with TPL could specialize in logistics area. Also, traditional logistics focuses its attention on activities such as procurement, distribution, maintenance, and inventory management. In a distribution system, four interrelated activities affect customer service and cost of providing it: Transportation, Distribution inventory, Warehouses (distribution centres), and Order processing.

The motivation behind this paper is to demonstrate the Variance comes about uncover the noteworthy contrast towards emerging issues and new challenges towards Logistics sector.

OBJECTIVES

The objective of the research made to identify a set of challenges that spanned with all facets of the logistics sector.

1. To identify the new challenges towards the logistics management of shipping.
2. To Examine the emerging issues of logistics in the present scenario.
3. To understand the importance & strategies of logistics management in detail.
4. To study the Overlapping of other functions with Logistics .
5. To examine the various aspects of logistical Maintainence.

Effect of SCM in Logistics

The transportation process in effect starts when and where carriers take goods in charge and finishes when and where goods are delivered to consignees. In the case of IMT, the SCM process includes the following specific activities:

a) Receiving goods from consignors;

b) Issuing the IMT document;

c) Warehousing or storing goods while waiting for transportation (if necessary);

d) Loading of goods onto the means of transport;

e) Transporting goods to destinations;

f) Transferring goods between means of transport;

g) Unloading goods;

h) Warehousing or storing goods while waiting for delivery (if necessary).

i) Delivering goods to the consignee upon presentation of an eligible IMT document.

Methodology on impact of logistics Sector

Research is a scholarly movement and accordingly the term ought to be utilized as a part of a specialized sense. As indicated by "Clifford Woody research includes characterizing and rethinking issues, figuring

speculation or recommended arrangements; gathering, sorting out and assessing information; making findings and achieving conclusions; and finally deliberately testing the conclusions to figure out if they fit the detailing theory."

This study utilizes both scientific and engaging sort of technique took after by the fundamental study, with the assistance of set of inquiries which constitute essential information.

Characteristics, Problems and Challenges of Logistic System Management

The following section discusses the Characteristics, Problems and Challenges in implementation and Management of Logistics. The study has designed questions on the above aspect for collecting the opinion of respondents. The results are detailed as follows.

Transportation Facilities

The study has collected the information regarding the opportunities for transportation available in the organisation. The study has categorized the transportation facilities likewise Multi-modal Transport, Inter-modal Transport, Combined Transport and Others. The results are been summarized in the following table 4.5

Table 1
Transportation Facilities

SL. No	*Parameter*	*Frequency*	*Percentage*
1	Multi-modal Transport	200	50.0
2	Inter-modal Transport	166	41.5
3	Combined Transport	13	3.2
4	Others	21	5.2
	Total	400	100

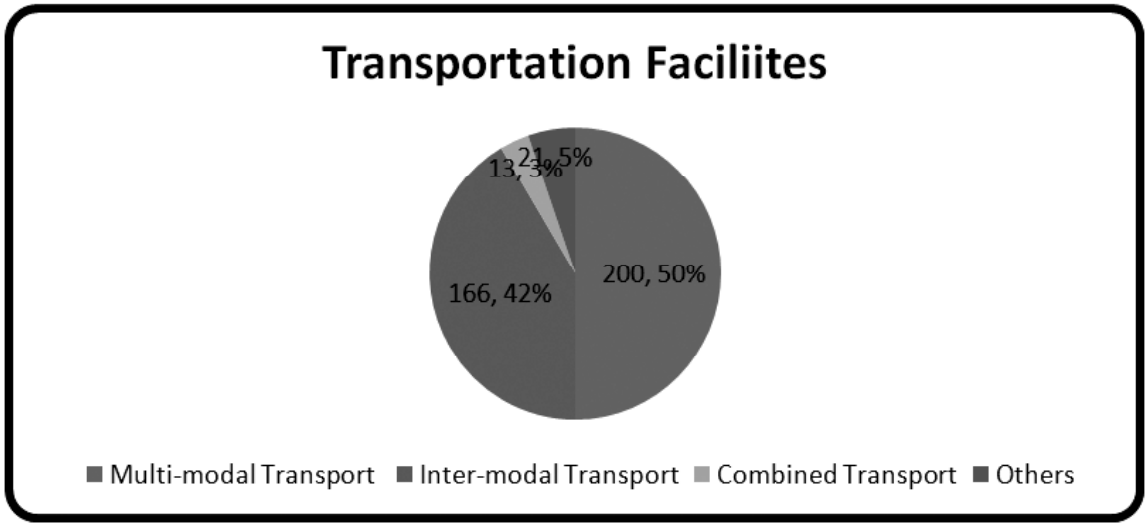

Figure 1: Transportation Facilities

The study results reveal that 200 respondents have Multi Modal Transport facility in their organisation (Percent = 50%). 166 respondents opined that they have Inter Modal Transport system facility in the organisation (Percent = 42%). 13 respondents have opined they have Combined Transport System in the Organisation (Percent = 3%) and 21 respondents have stated they other modes of transportation facilities in the organization (Percent = 5%).

Overlapping of other functions with Logistics

The study collects the opinion regarding overlap of other department functions with logistics. The dichotomous question is been asked, the results are been summarized in the following table2.

Table 2
Overlapping of other functions with Logistics

SL. No	*Parameter*	*Frequency*	*Percentage*
1	Yes	233	58.2
2	No	167	29.4
	Total	400	100

The above table reveals that majority of the respondents have opinion that other department function have overlapping with logistic function (Percent = 58.2).

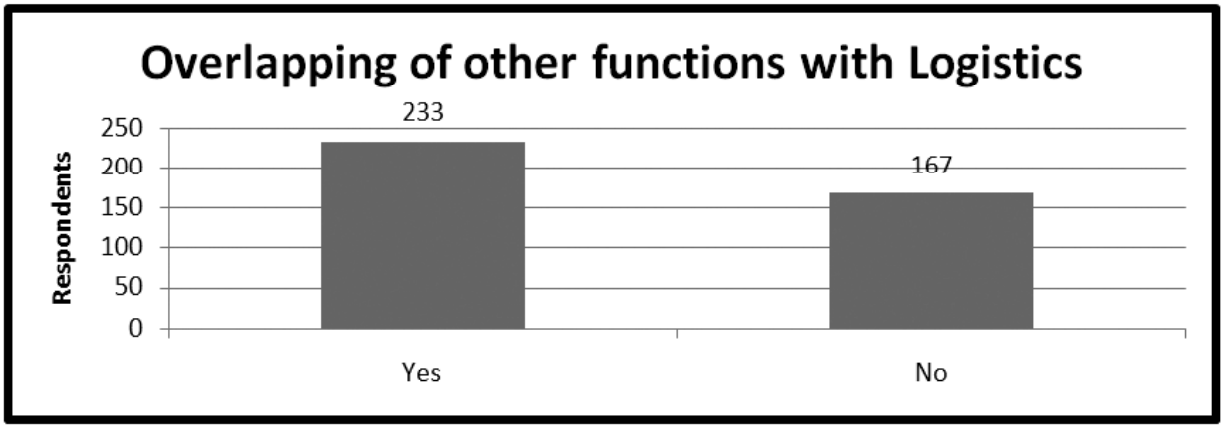

Figure 2: Overlapping of other functions with Logistics

Problems during delivery of Logistics

The study analysis the problems faced by the organisation during the delivery of logistics. The major problems are Damage, Late Delivery, Wrong Delivery and Others problems. The results are been summarized in the following table 3

From the following table it can be interpreted that 167 respondents opine that damage to the product is the problem faced during the delivery of logistics (Percent = 41.8). 184 respondents have opined late delivery is the problem faced during the delivery of logistics (Percent = 46.0). 13 respondents opined wrong delivery is the problem faced during the delivery of logistics (Percent = 3.2). 36 respondents have

opined that they faced other problems in delivery of logistics (Percent = 9.0). Hence it can be interpreted from the following table that Damage and Late Delivery are the main problems faced during the delivery of logistics.

Table 3
Problems during delivery of Logistics

SL. No	*Parameter*	*Frequency*	*Percentage*
1	Damage	167	41.8
2	Late Delivery	184	46.0
3	Wrong Delivery	13	3.2
4	Others	36	9.0
	Total	400	100

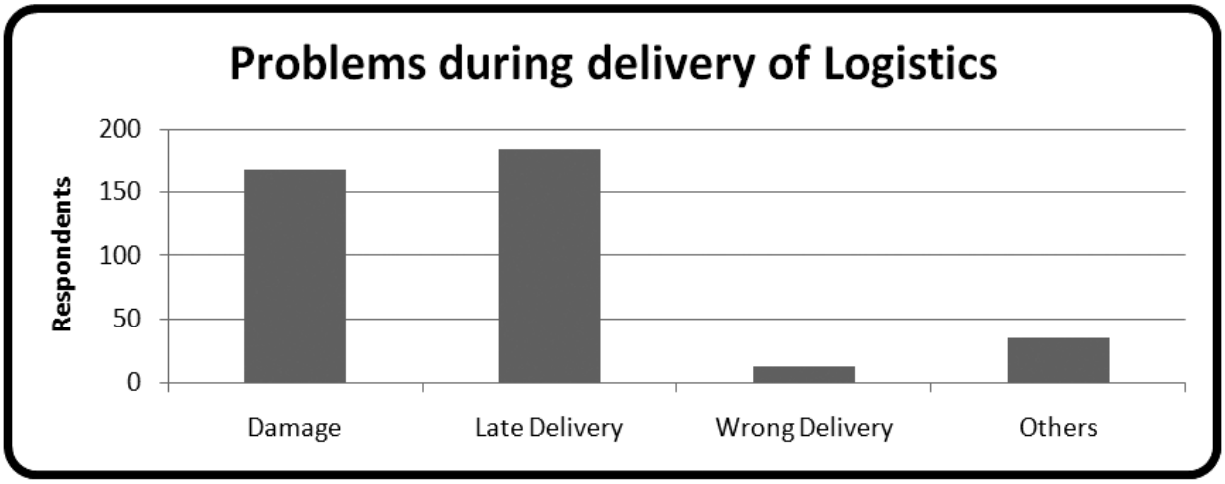

Figure 3: Problems during delivery of Logistics

It is observed from the above table that 355 respondents have stated that warehouse is the node for the distribution network (Percent = 88.8). 1 responded that franchisers are the node for their distribution network (Percent = 0.2). 31 respondents have stated that other intermediaries are the node for their distribution network (Percent = 7.8). 13 respondents have stated that others channels as the node for their distribution network (Percent = 3.2). Hence it can be interpreted that majority of the respondents opined that Warehouse is the node for the distribution network followed by other intermediaries.

Availability of Driverless vehicles and Drones for Logistics Maintenance

The study has collected information regarding the availability of Driverless vehicles and Drones for Logistic Maintenance. The results are summarized in the following table 4.14.

The table results states that majority of respondents organization doesn't have driverless vehicles and Drones for Logistics Maintenance (N = 374, Percent = 93.5).

Table 4
Availability of Driverless vehicles and Drones for Logistics Maintenance

SL. No	*Parameter*	*Frequency*	*Percentage*
1	Yes	26	6.5
2	No	374	93.5
	Total	400	100

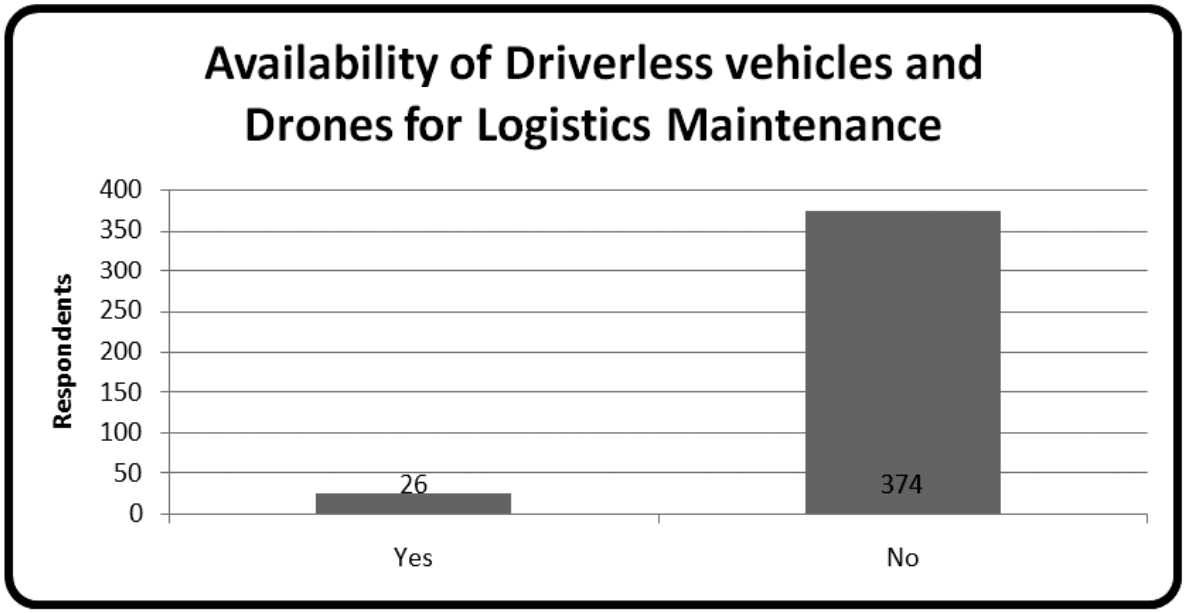

Figure 4: Availability of Driverless vehicles and Drones for Logistics Maintenance

Mode of Transportation

The study has analyzed the information of mode of transportation adopted by the logistics department in the respective organizations. The mode of transportation is categorized as Roadways, Waterways, Airways, Railways and all the above. The results are summarized in the following table 5.

Table 5
Mode of Transportation

SL. No	*Parameter*	*Frequency*	*Percentage*
1	Roadways	32	8.0
2	Waterways	26	6.5
3	Airways	0	0
4	Railways	0	0
5	All the above	342	85.5
	Total	400	100

It is interpreted from the above table that 32 respondents have stated that they transport the goods through Roadways (Percent = 8.0). 26 respondents stated that they transport through Waterways (Percent = 6.5). 342 respondents stated they transport through all the mode of transportation (Percent =85.5). None of the respondents have stated that they transport through Airways and Railways. Hence it can be interpreted that majority of the organizations do transportation through all the modes.

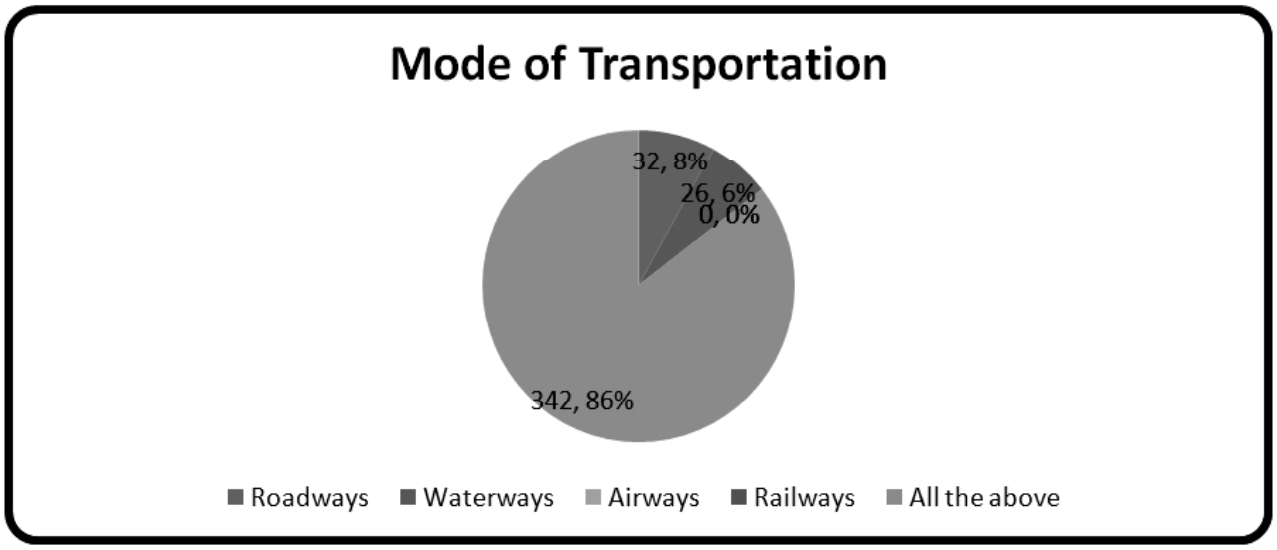

Figure 5: Mode of Transportation

Outsource of Logistics

The study collects information regarding outsource of Logistics in the organizations. The dichotomous question results are been summarized in the following table 6.

Table 6
Outsource of Logistics

SL. No	*Parameter*	*Frequency*	*Percentage*
1	Yes	344	86
2	No	56	14
	Total	400	100

It is observed from the above table that 344 respondents have stated that they outsource the logistics function in their organization (Percent = 86). 56 respondents state that they are not given logistics function for outsourcing (Percent = 14). Hence it can be understood that majority of the organisations have outsourced the logistics function.

Method of Delivery

The organisations follow various methods of delivery stated as follows Pick point to distributors at shipping place, Handled by third party, Roadways transportation by your own organization and Others. The results are been summarized in the following table 7.

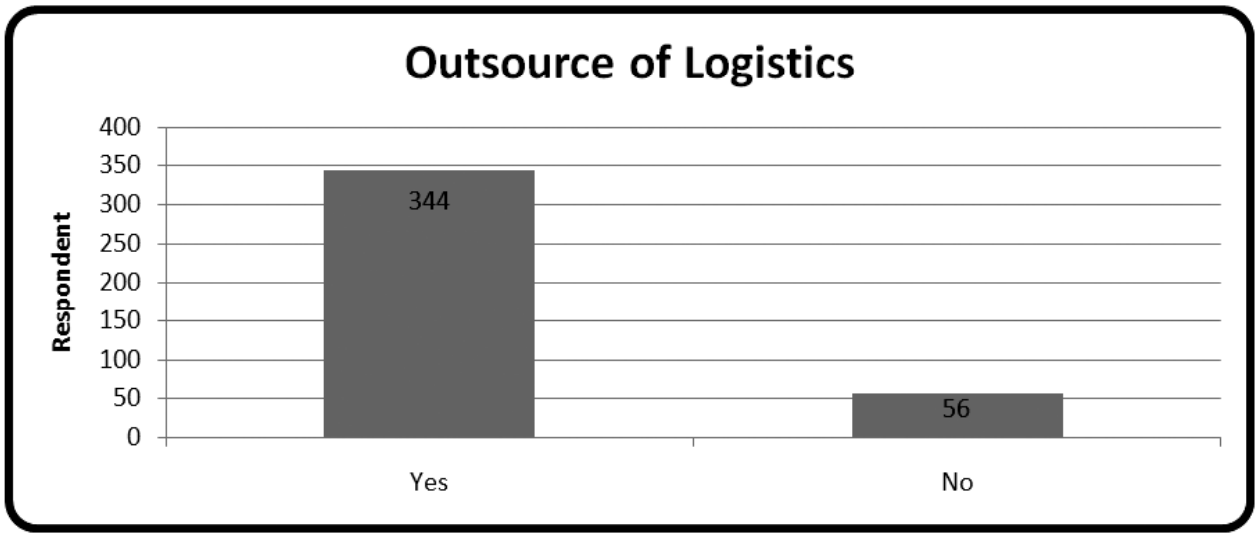

Figure 6: Outsource of Logistics

Table 7
Method of Delivery

SL. No	*Parameter*	*Frequency*	*Percentage*
1	Pick point to distributors at shipping place	219	54.8
2	Handled by third party	189	45.2
3	Roadways transportation by your own organization	0	0
4	Others	0	0
	Total	400	100

It can be understood from the above table that 219 respondents has stated that their organisation follow pick point distributors at shipping place after the waterways (Percent = 54.8).

189 respondents have opined that their organisation follow third party system for delivery of the product (Percent = 45.2). None of the respondents are following Roadways transportation by the own organisation in delivery of product. Hence it can be interpreted that majority of the organisation follow pick point distributors at shipping place method in delivery of the product.

Hypothetical Analysis

The following section of this chapter discusses the analysis of hypothesis developed in the study. The study employs statistical tools like Cross tab, Chi-Square and ANOVA for analyzing the significance of hypothesis.

Problems of delivery among organizations

The study analyzes problems of delivery among organizations. The various problems faced by the organisations are Damage, Late Delivery, Wrong Delivery and Other type of problems. To analyze the problems faced by the organisations, they are been classified based on their turnover. The study classifies

the organizations into four groups likewise turnover of 0-25 million, 26-50 million, 51-75 million and 76-100 million organisations. The study hypothesis as **H1 There is significant difference in problems faced in delivery among diverse group of organisations.** To test the above hypothesis study employs Cross Tabulation with chi square.

Table 8
Problems of delivery among organizations

Organisation Turnover	*Problems in Delivery*			*Total*
	Damage	*Late Delivery*	*Wrong Delivery and Others*	
0-25 Million	19	53	3	75
26-50 Million	34	55	14	103
51-75 Million	0	19	6	25
76-100 Million	114	57	26	197
Total	167	184	49	400
Chi Square	$\chi^2 = 65.213$	df = 6	Asym Sig = 0.00	

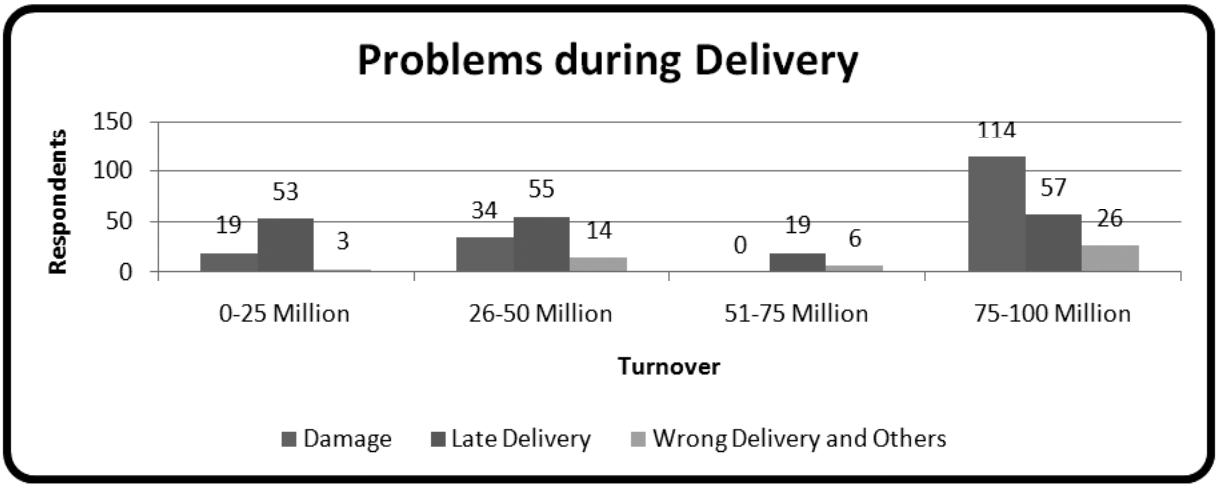

Chart 7: Problems during Delivery

It can be observed from the above table that 75 organisations have 0-25 million turnover, 103 organisations have 26-50 million turnover, 25 organisations have 51-75 million turnover and 197 organisations have 76-100 million turnover. Further among 167 respondents 19 of 0-25 million, 34 of 26-50 million and 114 of 76-100 million turnover organisations have stated they face damage problems during delivery of the product. Further among 184 respondents 53 of 0-25 million, 55 of 26-50 million, 19 of 51-75 million and 57 of 76-100 million turnover organisations have stated that they face late delivery problems during delivery, 49 organisations have stated they face wrong delivery and other kind of problems during the delivery.

In addition the study analyzes from the above data that whether there is significant difference in problems among the organizations. The chi square results reveal that there is significant difference

in problems faced by the organizations ($\chi^2 = 65.213$, df = 6, $p < 0.00$). Hence it can be interpreted from the above table that Majority of the organisations face late delivery followed by damage problems during delivery of the product. Further comparatively, 0-25, 26-50, 51-75 million turnover groups of organisations are facing late delivery as major problem during delivery. Comparatively, 76-100 million group of organisations are facing damage as the major problem. Hence the hypothesis H1 is accepted.

Problems of Shipping among Organisations

The study analyzes the problems of faced by the organisation during shipping of the goods. The more often problems considered in the study are off – time delivery, cost, damage and other problems. As discussed earlier to find the problems in shipping among the classification of organisations, they are been classified into four groups like 0-25 million, 26-50 million, 51-75 million, 76 -100 millions of turnover. The study hypothesis as H2 There is significant difference in problems faced during shipping among diverse group of organizations. To test the hypothesis the study employs cross tabulation with chi square test. The results are been summarized in the following table.

Table 9
Problems of Shipping among Organisations

	Problems of Shipping			
Organisation Turnover	*Off-Time Delivery*	*Cost and Damage*	*Others*	*Total*
0-25 Million	54	6	15	75
26-50 Million	95	0	8	103
51-75 Million	25	0	0	25
76-100 Million	145	11	41	197
Total	319	17	64	400
Chi Square	$\chi^2 = 25.507$	df = 6	Asym Sig = .000	

It is observed from the above table regarding the problems faced by the organisations during shipping of goods. The results reveal that among 319 respondents 54 of 0-25 million, 95 of 26-50 million, 25 of 51-75 million and 145 of 76-100 million turnover organisations have stated that off time delivery is the problem faced during shipping of goods. 17 respondents state that cost and damage problems are been faced during shipping of goods. Whereas 64 respondents have stated that they face other problems in shipping of goods.

In addition the study analyzes from the above data that whether there is significant difference in problems among the organizations. The chi square test results state that there is significant difference in problems faced by the organizations during shipping of goods ($\chi^2 = 25.507$, df = 6, $p < 0.00$). It can be observed from the above table that all groups of organisations face off time delivery as the major problem during shipping of goods. Hence the hypothesis H2 is accepted.

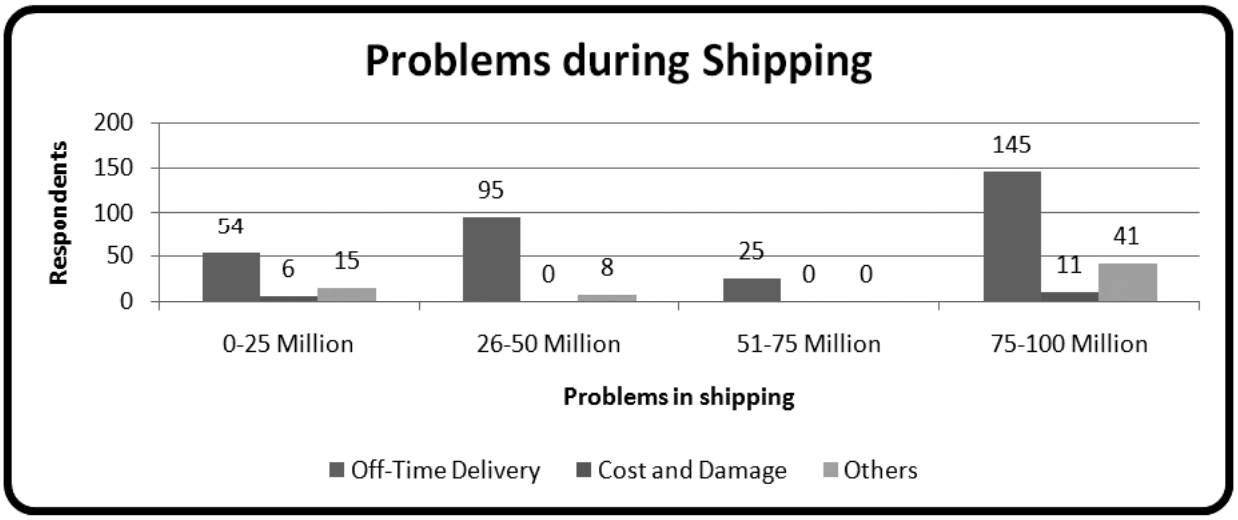

Figure 8: Problems during Shipping

Transportation Opportunities among Organisations

The study analyzes transportation opportunities available among the various groups of organisation. The classification of transportation modals are like Multi Modal Transport, Inter Modal Transport, Combined Transport and others. The study analysis the various transportation opportunities available among the classification of organisations, they are been classified into four groups like 0-25 million, 26-50 million, 51-75 million, 76 -100 millions of turnover. The study hypothesis as H3. There is significant difference in Transportation opportunities among diverse group of organization. To test the hypothesis the study employs cross tabulation with chi square test. The results are been summarized in the following table.

Table 10
Transportation Opportunities among Organisations

	Transportation Opportunities			
Organisation Turnover	*Multi Modal Transport*	*Inter Model Transport*	*Combined Transport and Others*	*Total*
0-25 Million	27	35	13	75
26-50 Million	51	41	8	103
51-75 Million	5	20	0	25
76-100 Million	117	67	13	197
Total	200	166	34	400
Chi Square	$\chi^2 = 32.94$	df = 6	Asym Sig = 0.00	

The results in the following table states that among 200 respondents 27 of 0-25 million, 51 of 26-50 million, 5 of 51-75 million and 117 of 76-100 million turnover organisations state they have Multi Modal transport opportunities in their organisations. Among 166 respondents 35 of 0-25 million,41 of 26-50 million, 20 of 51-75 million and 67 of 76-100 million turnover organisations have Inter Modal transport opportunities. Among 34 respondents 13 of 0-25 million, 8 of 26-50 million

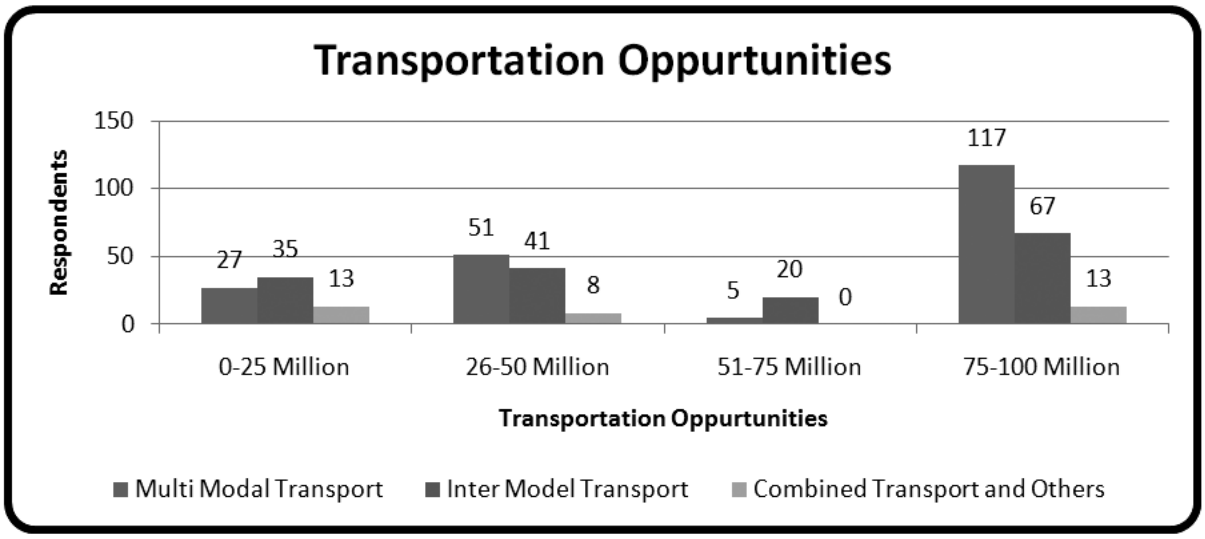

Figure 9: Transportation Opportunities among Organisations

and 13 of 76-100 million turnover organisations state that they have Combined Modal transportation opportunities.

In addition the study analyzes whether there is significant difference in transportation opportunities among organisations. The study results reveal that there is significant difference in availability of transportation opportunities among the organisations ($\chi^2 = 32.94$, df = 6, $p < 0.00$).

The study results also reveal that majority of the organisations are having Multi Modal and Inter Modal Transportation. Hence the hypothesis H3 is accepted.

Handling systems among Organisations

The study analyzes the availability of Handling Systems among various group of organisations. The classification of handling systems is likewise Trans Pallet Handlers, Counter Weight Handler, Retraceable

Table 11
Handling systems among Organisations

	Handling Systems					
Organisation Turnover	*Trans Pallet Handlers*	*Counter Weight Handler*	*Retraceable Mass Handler and Bilateral Handlers*	*Trilateral Handler*	*Others*	*Total*
0-25 Million	22	8	13	20	12	75
26-50 Million	19	0	8	26	50	103
51-75 Million	5	0	0	5	15	25
76-100 Million	104	53	0	0	40	197
Total	150	61	21	51	117	400
Chi Square	$\chi^2 = 1.787E2$		df = 12		Asym Sig = .000	

Mass Handler, Bilateral Handlers, Trilateral Handler and Others. The study analysis the various handling systems available among the classification of organisations, they are been classified into four groups like 0-25 million, 26-50 million, 51-75 million, 76 -100 millions of turnover. The study hypothesis as H4 Handling systems during shipping followed by various organizations is different. To test the hypothesis the study employs cross tabulation with chi square test. The results are been summarized in the following table.

The test results in the above table states that among 150 respondents 22 of 0-25 million, 19 of 26-50 million, 5 of 51-75 million and 104 of 76-100 million turnover organisations, have stated that they have Trans Pallet Handlers system in their organisations. Among 61 respondents 8 of 0-25 million and 53 of 76-100 million turnover organisations, have stated that they have Counter Weight Handlers system in their organisations. Among 21 respondents 13 of 0-25 million, and 8 of 26-50 million turnover organisations, have stated that they have Retraceable Mass Handler and Bilateral Handlers system in their organisations. Among 51 respondents 20 of 0-25 million, 26 of 26-50 million and 5 of 51-75 million turnover organisations, have stated that they have Trilateral Handlers system in their organisations.

Further the study analyzes the difference in availability of handling system among various groups of organisations. The chi square test results reveal that there is significant difference in availability of handling systems among organisations ($\chi^2 = 1.782E2$, df = 12, $p < 0.00$). In addition it can be observed that majority of the organisation are utilizing Trans Pallet Handlers System in their Organisations. Hence H4 is accepted.

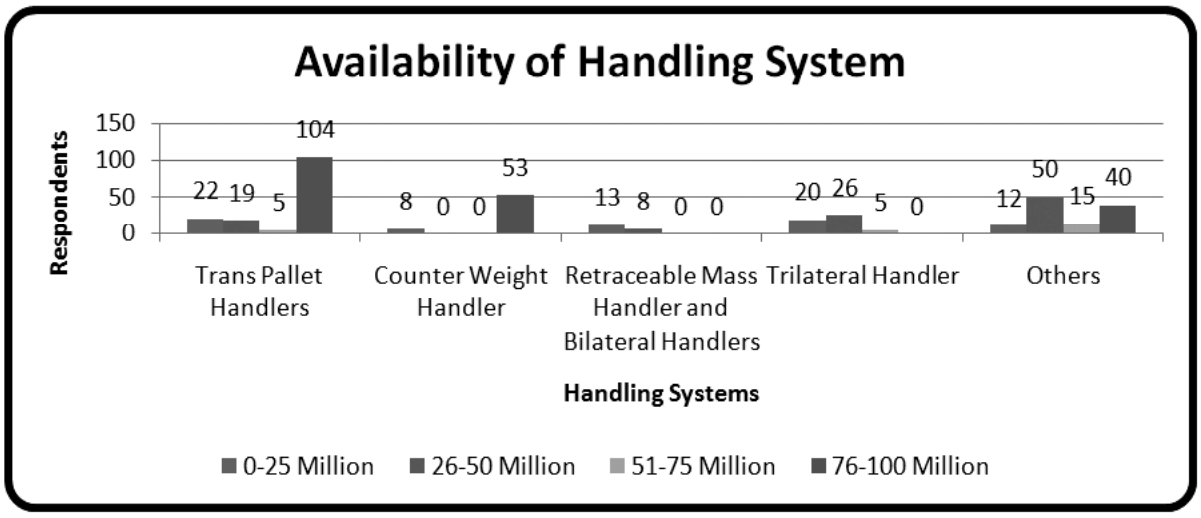

Figure 10: Handling systems among Organisations

SUGGESTIONS

An integrated view of the logistics design may lead to an improvement in service level as well as substantial savings in total costs. We believe that by focusing the study on the relationship between distribution and other functions in a logistics system, new opportunities can be identified and new results can be proposed.

The transportation facilities under SCM was preferring multi-modular transport to deliver their products to their customers. It was found that most of the logistics functions are overlapping with other logistics. It

was analysed with the study that there are most of problems during delivery is due to late. Even though the customers are continuing with the online purchasing system because of several reasons viz., discounted price, service quality etc. the main source of transportation are chosen by roadways and airways.

Most of the organization follow the pick point to its distributors and only few of the organizations are following the delivery through third party logistics. The organizations are in the state that the third party delivery may lead to damages and late delivery. The logistics handling system includes transpallet handlers.

CONCLUSION

New tools and techniques have been needed for logistics managers to use to measure cost and performance, and in assessing the role of logistics in ensuring customer satisfaction in different areas of business activity, evaluating logistics trade-offs in relation to integrated strategy and enabling the debate on the impact of logistics decisions on the environment and industries. This has facilitated the analysis of the contribution of logistics to competitive strategy, productivity and value advantage and judgment of critically concepts and methods The study comes about effect of the invert coordinations exercises handling their contradiction on the announcements of Logistic Specificiations has been considered in the paper. Variance comes about uncover that there is huge distinction in conclusion on logistic System preparing precision has been resolved efficiently. It has been demonstrated that the outcomes acquired are of basic nature and might be connected to the coordinations organizations with various parallel instruments.All of the entities and activities in the supply chain are highly interrelated to each other by means of material and information flow; as a result, synchronized consideration of production, inventory and distribution is necessary and critical in the study of a distribution problem. Today's competitive business environment has resulted in increasing pressure for many companies in almost every industry. In such an environment, companies must fill customer orders, accurately, quickly and efficiently.

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