

# International Journal of Applied Business and Economic Research

ISSN: 0972-7302

available at http: www.serialsjournal.com

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Volume 15 • Number 4 • 2017

# **Implementing Reverse Logistics Activities Into Existing Companies Systems on the Chennai Market**

# D. Rajasekar<sup>1</sup> and K. Bhuvaneswari<sup>2</sup>

<sup>1</sup>Associate Professor, AMET Business School AMET University, 135, East Coast Road, Kanathur, Chennai – 603112

#### **ABSTRACT**

This paper connotes through Analysis of effect on switch coordinations exercises into existing organizations system. Variance comes about uncover that there is critical contrast in supposition on Reverse Logistic System preparing exactness has been resolved. Expanded rivalry brought about by globalization and fast innovative advances has driven associations to deliver and attempt endeavors to enhance proficiency in their store network. Expanding proficiency in turn around coordinations procedures, for example, the recuperation of the returned items or transfer of end-of-life items is one route in which firms endeavor to keep up and increment aggressiveness and piece of the overall industry. This study portrays and dissects the key attributes of research on invert coordinations exercises into existing organizations frameworks on the chennai showcase. Be that as it may, the changed controls and points of view from which turn around coordinations look into emerges the endeavors to build up an extensive subject.

*Keywords:* Reverse logistics activities, company strategy, business development, Factors Driving its Performance and Implementation.

#### 1. INTRODUCTION

The measurement of invert coordinations awes the organizations to change the method for business with the point of comprehension and executing reverse coordinations methodologies in their frameworks. Albeit yet as of late administration of the coordinations organizations attempted to prevent noteworthiness from securing the invert coordinations, today great turn around coordinations administration can be a promoting system to enhance consumer loyalty, organizations advertise position and measure of the returned benefit. Choice about the usage of exercises can be of vital matter and can challenge for the organizations

<sup>&</sup>lt;sup>2</sup>Research Scholar, AMET Business School, AMET University, 135, East Coast Road, Kanathur, Chennai – 603112

administration. The methodology must be executed as movement as well as installed into entire association, procedures and supporting innovation.

The motivation behind this paper is to demonstrate the Variance comes about uncover the noteworthy contrast in assessment on Reverse Logistic System is powerful.

# 2. OBJECTIVES

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

- 1. A study on the growth and impact of Reverse Logistics operations.
- 2. To Examine the supply chain partners towards the reverse logistic operations of the organization.
- 3. To identify overall Skewness and Parameter of Reverse Logistic System.
- 4. To understand the customer satisfaction levels have increased as a result of efficient reverse logistic operations in the organization.
- 5. To examine the aspects of Reworking and re-using the returned products provides the organization flexibility in terms of product range and product volume.

#### 3. STATEMENT OF THE PROBLEM

Reverse Logistics exercises are normally overseen inside a solitary firm or between a couple firms (e.g., sellers, coordinations benefit suppliers), yet once in a while crosswise over individuals from the store network. Reverse and forward coordinations choices made for reasons of cost and administration efficiencies quite often have positive natural advantages. Products have a tendency to stay longer in turn around directs than in forward channels, bringing about higher expenses in stock, transportation and warehousing, and diminished incomes as a result of item outdated nature and corruption. Economies of scale are critical. Along these lines, for little to medium-measure firms, it can be hard to create ideal projects without adequate thing amounts required all the while. From a money related point of view, many firms don't precisely or rapidly catch costs from Reverse Logistics exercises, nor do they appropriately esteem the advantages recouped through the procedure.

#### 4. RESEARCH GAP

This investigation gives an extension of information on the field of turn around coordinations furthermore figures out where crevices stay in the writing. In the wake of checking on the writing and deciding the flow condition of research and distinguishing conceivable crevices, the analyst used to decide the positioned key variables to the invert coordinations prepare.

#### 5. RESEARCH METHODOLOGY

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.

# 6. ANALYSIS OF IMPACT ON REVERSE LOGISTICS ACTIVITIES INTO EXISTING COMPANIES

This paper presents results from statistical analysis conducted utilizing SPSS 16.0 version. The statistical tools like Skewness for testing the Normality of the data; Cronbach's Alpha is employed to know the Reliability of rating scales used in the questionnaire for measuring the Reverse Logistics System. The study has analyzed multiple choice questions by Count and Percentages. The study has measures the Weighted Mean Score for all the rating scales questions of Reverse Logistics System. Cross tabs and Chi Square Test is employed for hypothesis testing by keeping type of the organisation in the column/row and various variables pertaining to logistics Management and problems. Analysis of variance is done by using ANOVA, in the case of Non Parametric data Mood's median test or will be employed.

#### 7. DESCRIPTIVE STATISTICS

The descriptive statistics like Skewness, Cronbach's Alpha, Count, Percentages and Weighted mean Score of the data collected from the multiple choice questions and rating scale of Reverse Logistics System (RLS).

### **Test for Normality**

Results of the research implicated the Skewness Statistic of the Reverse Logistic System item data collected through structured questionnaire. The skewness between -1 to 1 is interpreted as normal data. The results from the following Table 15.1 reveal that the items of 2, 3, 5 and 6 are have the skewness value above -1 to 1 hence the data of the above said items are interpreted has non normality. The remaining items of Reverse Logistics System are observed to have normal data. The overall summation of all the items into a single variable is observed to have skewness within the range of -1 to 1 interpreted as data has normal distribution.

Table 15.1
Standard deviation and Skewness of Reverse Logistics System Items

S. No.	Parameter	Std. Deviation	Std Error	Skewness
1.	Carrying out the reverse logistic operations in an organized manner gives the organization an edge over its competitors.	.41036	.324	.122
2.	Reverse Logistics operations in the company effectively handles the recovery of assets for the products returned by the customer.	.22331	-4.028	.122
3.	The reverse logistics system in the organization has led to timely rework and repair of the returns.	.66521	1.890	.122
4.	The organization is able to offer customized products quickly by studying the customer's product return patterns.	1.01082	-1.052	.122

S. No.	Parameter		Std Error	Skewness
5.	Reworking and re-using the returned products provides the organization flexibility in terms of product range and product volume.	1.16941	-1.387	.122
6.	The customer satisfaction levels have increased as a result of efficient reverse logistic operations in the organization.	.85709	2.068	.122
7.	Reverse Logistics operations in the company has an impact on containing the cost of operations in the company.	.58442	.979	.122
8.	The reverse logistics system in the organization has led to timely rework and repair of the returns.	.90489	270	.122
9.	Long term association with the supply chain partners is enhanced due to the reverse logistic operations of the organization.	.62076	016	.122
10.	The organization is able to launch new products quickly due to an organized reverse-logistics operations	1.64577	<b>11</b> 0	.122
11.	Overall Skewness of Reverse Logistic System	.470	0.013	.122

# **Reliability Analysis**

Cronbach's Alpha for analyzing the reliability of the items designed to measure the Reverse Logistics System. The statistical technique Cronbach's Alpha is a measure of internal consistency, that is, whether all items within the instrument measure the same thing. Alpha is measured on the same scale as Pearson Correlation Coefficient and typically varies in range of 0 to 1. The closer alpha approaches 1.00 the greater the internal consistency of items in the instrument being assessed. Acceptable standard alpha value should be equal to or greater than 0.6 to indicate the internal consistency of the items of the instrument. Results of the research reveal that the Reverse Logistic System items have internal consistency. The results from the following Table 15.2 reveal that the Cronbach's Alpha of Reverse Logistic System have 10 items with alpha value of 6.644.

Table 15.2 Reliability Analysis of Reverse Logistic System

Parameter	No of Items	Cronbach's Alpha
Reverse Logistic System	10	0.644

#### Weighted Mean Score

The study has calculated the weighted mean score of each item and overall mean of Reverse Logistic System. Results of the research reveal the weighted mean score are listed in the following Table 15.3.

Table 15.3 Weighted Mean Score of Reverse Logistic System

S. No.	Question/Parameter	Weighted Mean Score
1.	Carrying out the reverse logistic operations in an organized manner gives the organization an edge over its competitors.	2.0450
2.	Reverse Logistics operations in the company effectively handles the recovery of assets for the products returned by the customer.	1.9475

S. No.	Question/Parameter	Weighted Mean Score
3.	The reverse logistics system in the organization has led to timely rework and repair of the returns.	1.4400
4.	The organization is able to offer customized products quickly by studying the customer's product return patterns.	4.0575
5.	Reworking and re-using the returned products provides the organization flexibility in terms of product range and product volume.	3.9700
6.	The customer satisfaction levels have increased as a result of efficient reverse logistic operations in the organization.	2.0850
7.	Reverse Logistics operations in the company has an impact on containing the cost of operations in the company.	2.0425
8.	The reverse logistics system in the organization has led to timely rework and repair of the returns.	2.1350
9.	Long term association with the supply chain partners is enhanced due to the reverse logistic operations of the organization.	2.0250
10.	The organization is able to launch new products quickly due to an organized reverse-logistics operations	3.1150
11.	Overall Skewness of Reverse Logistic System	2.6150

From the above Table 15.3 the results reveal that respondents disagree on overall management and implementation of Reverse Logistic System with a Weighted Mean Score of 2.6150. The study has observed that the respondents have disagreed on the following statement of Reverse Logistic System implemented in their organization like Carrying out the reverse logistic operations in an organized manner gives the organization an edge over its competitors (Weighted Mean Score = 2.0450); Reverse Logistics operations in the company effectively handles the recovery of assets for the products returned by the customer (Weighted Mean Score = 1.9475); The reverse logistics system in the organization has led to timely rework and repair of the returns (Weighted Mean Score = 1.4400); The customer satisfaction levels have increased as a result of efficient reverse logistic operations in the organization (Weighted Mean Score = 2.0850); Reverse Logistics operations in the company has an impact on containing the cost of operations in the company (Weighted Mean Score = 2.0425); The reverse logistics system in the organization has led to timely rework and repair of the returns (Weighted Mean Score = 2.1350)

Long term association with the supply chain partners is enhanced due to the reverse logistic operations of the organization (Weighted Mean Score = 2.0250).

Further the study observes that the respondents agree to the following statement likewise the organization is able to offer customized products quickly by studying the customer's product return patterns (Weighted Mean Score = 4.0575); Reworking and re-using the returned products provides the organization flexibility in terms of product range and product volume (Weighted Mean Score = 3.9700) and the organization is able to launch new products quickly due to an organized reverse-logistics operations (Weighted Mean Score = 3.1150).

#### Significance of Accuracy of Hypothetical Analysis

The study employs statistical tools like Cross tab, Chi-Square and ANOVA for analyzing the significance of hypothesis.

Table 15.4

Analysis of Variance in Opinion on Reverse Logistic System among Organisations

S. No		ANOVA		
Organisation Turnover	Frequency (N)	Reverse Logistic System Mean Score	F-value	p-value
0-25 Million	75	2.5236		
26-50 Million	103	2.4916	20.52	000
51-75 Million	25	2.1709	20.53	.000
76-100 Million	197	2.7707		

Results of the research implicated (shown in a table above) explains that 75 respondents of 0-25 million turnover organisation have opined disagreement on the statements of Reverse Logistic System (Weighted Mean Score = 2.52). Similarly, 103 respondents of 26-50 million (Weighted Mean Score = 2.4916) and 25 respondents of 51-75 million (Weighted Mean Score = 2.1709) turnover group of organisations have stated their disagreement on the statements of Reverse Logistic System. Whereas 197 respondents of 76-100 million turnover group organisation are marginally neutral on statements pertaining to Reverse Logistic System (Weighted Mean Score = 2.77).

In addition the Analysis of Variance results reveal that there is significant difference in opinion on Reverse Logistic System (F = 20.53, p < 0.00). Hence the hypothesis **H1** is accepted.

#### 8. SUGGESTIONS

The potential neglect towards the reverse logistics process may reduce the amount of value that the firm extract from the returned product, and will have negatively impact customer relationships, and possibly increase reverse logistic costs due to inadequate management oversight of the process.

#### 9. CONCLUSION

The study comes about effect of the invert coordinations exercises handling their contradiction on the announcements of Reverse Logistic System has been considered in the paper. Essentially, the more esteem staying in the returned item, the more imperative the invert coordinations process is inside the association. Before, industry has not concentrated on the administration and improvement of the switch procedure, returns were viewed as oppressive and a movement oversaw more by special case than as a key procedure Variance comes about uncover that there is huge distinction in conclusion on Reverse 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.

#### 10. LIMITATIONS

We have limited our discussion within the premises of the Chennai market. Also, the drivers identified here might further include those which we might have failed to identify due to the paucity of time and resources and limited geographical reach. Also, focus on some broader aspects of reverse logistics like the entire process, the prevalent practices, direct and indirect benefits, outsourcing reverse logistics or some of its functions etc.

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