



A STUDY ON CHALLENGES FACED IN MATERIAL HANDLING MANAGEMENT AT COMPACK PACKAGING PVT.LTD

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ABSTRACT

The highly competitive environment, linked to the globalization phenomena, demands from companies more agility, better performance and the constant search for cost reduction. The present study focused on improvements in internal materials handling management, approaching the case of a large company in the manufacturing industry. Materials handling is intrinsically associated with production flow. Because of this, it has direct influence on transit time, resources usage, and service levels. The objective was to evaluate, in a systematic way, the challenges faced in material handling management at manufacturing industries.

INTRODUCTION

The wealth of a country is measured by its gross national product the output of goods and services produced by the nation in a given time. Goods are physical objects, something we can touch, feel, or see. Services are the performance of some useful function such as banking, medical care, restaurants, clothing stores, or social services. But what is the source of wealth is measured by the amount of goods and services produced, but where does it come from Although we may have rich natural resources in our economy such as mineral deposits, farmland, and forests, these are only potential sources of wealth.

REVIEW OF LITERATURE

1. Sara Frojd (2021) Supplier development and how to improve suppliers order to delivery and learn from supplier integration.
2. Rami Alghalayini (2020) Improving an internal material handling system. A case study on a swedish company in food industry.
3. Jonatan gustafsson (2020) Reverse logistics management in construction. A multiple case study examining the effects of organizational size.

RESEARCH DESIGN

Descriptive research is a study designed to depict the participants in an accurate way. More simply put, descriptive research is all about describing people who take part in the study.

SAMPLING DESIGN

The sampling technique undergone for this study is Simple random sample. Simple random sampling is a type of probability sampling in which the researcher randomly selects a subsets of participants from a population.

DATA COLLECTION

• **Primary data** was collected by giving questionnaire to the employees. The completed questionnaires in all respects were taken for the study. Questionnaire used which consist of 20 questions.

Secondary data used was the literature given which were reviewed for the purpose of attaining knowledge on the topic.

TOOLS

In this study, It has various statistical tools like percentage analysis and statistical test like Correlation and chi-square.

DATA ANALYSIS & INTERPRETATION

TABLE 4.7 CRITICAL FACTOR IN MATERIAL HANDLING

S.No	Critical Factor	No.of.respondents	Percentage
1	Lack of equipment	33	27.5
2	Ordering System	43	35.8
3	Lack of information	28	23.3
4	Damage	16	13.3
	Total	120	100

What do you consider to be the critical factor in material handling?

120 responses

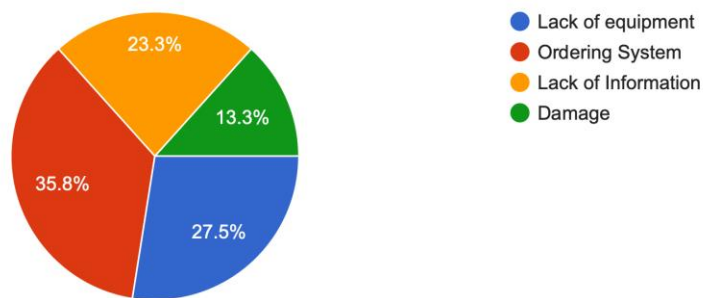


CHART 4.7: CRITICAL FACTOR IN MATERIAL HANDLING

INTERPRETATION

From the above table it is interpreted that the critical factor are 27.5% for Lack of equipment and 35.8% for Ordering system and 23.3% for Lack of information and 13.3% for Damage.

INFERENCE

Majority (35.8%) of respondents said that the Ordering system is the most critical factor in material handling

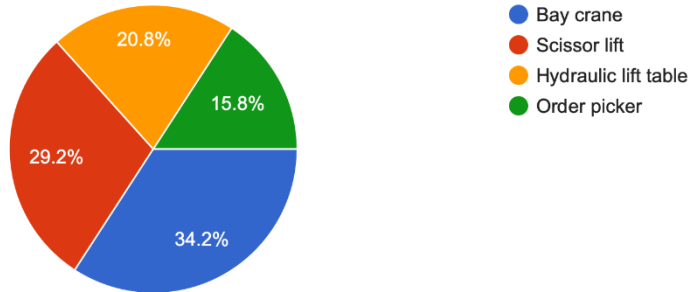
TABLE 4.16: MODERN EQUIPMENTS NEEDED FOR COMPAN

S.No	Modern Equipment	No.of.respondents	Percentage
1	Bay crane	41	34.2
2	Scissor lift	35	29.2
3	Hydraulic lift table	25	20.8
4	Order picker	19	15.8
	Total	120	100

CHART 4.16: MODERN EQUIPMENT NEEDED FOR THE COMPANY

What type of modern equipment are required for better material handling in the company?

120 responses



INTERPRETATION

From the above table it is clearly said that the 34.2% for Bay crane and 29.2% for scissor lift and 20.8% for Hydraulic lift table and 15.8% for Order picker were the modern equipment needed for the company.

INFERENCE

Majority (34%) of respondents said that the Bay crane equipment needed for the company

4.2 ANALYSIS USING CORRELATION

AIM:

To Test the relationship between Experience and Critical factor in material handling.

Null hypothesis (H0):

There is no significance difference between Experience and Critical factor in material handling.

Alternate Hypothesis (H1):

There is significance difference between Experience and Critical factor in material handling.

X	Y	X ²	Y ²	XY
52	33	2704	1089	1716
49	43	2401	1849	2107
13	28	169	784	364
6	16	36	256	96
	$\Sigma Y=120$	$\Sigma X^2=5310$	$\Sigma Y^2=3978$	

$$r = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{[n\Sigma x^2 - (\Sigma x)^2][n\Sigma y^2 - (\Sigma y)^2]}}$$

$$= \frac{4(4283) - (120)(120)}{\sqrt{[4(5310 - 120^2)][4(3978 - 120^2)]}}$$

$$= \frac{17132-14400}{\sqrt{[(21240 -14400)] [(15912 -14400)]}} = \frac{2732}{\sqrt{6840 * 1512}} = \frac{2732}{3215.91} = 0.8495$$

RESULT:

Null hypothesis (H0) Rejected

INFERENCE:

r=0.8495 which indicates that there is relationship between the Experience and Critical factor in material handling.

5.1 FINDINGS

- Majority (62.5%) of the respondents are age between 21-30 years.
- Majority (67%) of the respondents are Male.
- Majority (54%) respondents is Undergraduate
- Majority (43%) respondents has 1 – 10 years of experience.
- Majority (46%) respondents said that it takes 15 - 30 min to unload the 500 pieces of material.
- Majority (53.3%) of the respondents preferred automated.
- Majority (35.8%) of respondents said that the Ordering system is the most critical factor in material handling.
- Majority (42.5%) of respondents said their current racking system as Two tier system.
- Majority (45%) of respondents are satisfied with storage method.
- Majority (41.7%) of respondents confirmed that 1.5feet is effective for material movement.
- Majority (36.7%) of respondents said poorly maintained equipment is problem facing frequently.
- Majority (48.3%) of respondents said that the power trolleys is the most used equipment in handling materials.
- Majority (39.2%) of respondents said that the equipment is more safety for handling materials is power trolley.
- Majority (35%) of respondents said that the trouble in equipment are considered to be the major problem in material handling.
- Majority (30.8%) of respondents are Agree with the currently used equipment
- Majority (34%) of respondents said that the Bay crane equipment needed for the company.
- Majority (39.5%) of respondents are Agree with the implementing of alternative method in material handling.
- Majority (58%) of respondents are said there is improvement has been made last month.
- Majority (59.2%) of respondents are agreed with the material handling system can help reduce cost and delay onsite

5.2 SUGGESTION

- Make a plan use as a team approach to design the material handling system.
- Standardize the consistent in your choice of storage equipment, including bins, shelves and racks as well as equipment used to transport materials.
- Reduce, combine or eliminate as much movement as possible.
- Wherever possible, move full pallets or containers to improve efficiency and reduce effort.
- Working in an organized space is more efficient than working around clutter.
- Employ automation wherever possible. Think of automated picking and put-away technologies.

5.3 CONCLUSION

Regarding various theories and empirical review from this term paper I conclude that material handling today are lifeblood of any industry and no government industry or organization or private organizations operates without them. So material handling increases the efficiency and effectiveness of the manufacturing organizations since it have many in significant contributions which is finally result the reduction of production costs. By using material handling the organization can save the time, reduce the number of labours, save the space, improving working conditions etc., It is obviously that in order to achieve those objectives and to increase the organization performance the organization should set up the proper principles and guidelines to be followed that will make the organization to increase the production as well as to reduce the cost of production. Not only material handling increase the efficiency and effectiveness that result the reduction of costs in the production process but also have the great impact towards the improvement of industries in the country with leads the government to increase its income from those industries that influence the economic development.

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