



Study on Stock Management Practices in Construction Companies

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Abstract

The main objective of the study is to analyze the inventory control practices adopted by the construction companies. This analysis is based on the primary and secondary data. The main source of primary data is by conducting questionnaire survey and the source of secondary data is published Annual Report and stock sheets of the company. For the purpose of analysis of secondary data of five consecutive years have been employed. Statistical tools like ABC analysis, FSN analysis are used. A separate questionnaire survey is conducted for low level construction companies, medium and high level companies. The collected data is analyzed using Software. The secondary data is collected from medium and high level construction companies. From the data analysis suggestions are given to improve the stock management practices followed in construction companies.

Keywords: Stock, inventory, primary data, secondary data, ABC analysis, FSN Analysis

Introduction

In industry inventory means 'stock of goods'. Inventory is an idle resource having an economic value awaiting conversion, consumption or re-sale. Thus they are held primarily for some transaction. 'Today's inventory is tomorrow's production'. To the finance manager, inventory connotes the value of raw materials, consumables, spares, work-in-progress, finished goods and scrap in which a company's funds have been invested. He considers inventory as locked up capital. On the opposite side are the user departments, which clamor for more. To satisfy both sides, the inventory is to be controlled¹. Finance manager exercises control over inventory. Inventory management covers a large number of issues including determining the size of the inventory to be carried; setting up receipt and inspection procedure; determining the economic order quantity; providing proper storage facilities; keeping check on obsolescence and setting up effective information system with regard to the inventories. Inventories should neither be excessive nor inadequate. If inventories are kept at a high level, higher storage costs would be incurred. A low level of inventories may result in underutilization of capacity and lower sales².

Methodology

The following questions are designed for this survey and the results are discussed below

For Low Level Companies: i. What kind of material stock will you maintain in your company? ii. What kind of material stock will you maintain in your company? iii. Based on which criteria will you maintain stock for equipment spares? iv. If you maintain stock for cement how much percentage will you retain? v. If you maintain stock for sand how much percentage

will you retain? vi. If you maintain stock for coarse aggregate how much percentage will you retain? vii. If you maintain stock for primer how much percentage will you retain? viii. If you maintain stock for Steel rod how much percentage will you retain? ix. If you maintain stock for coarse aggregate how much percentage will you retain? x. If you maintain stock for bricks how much percentage will you retain? xi. If you maintain stock for equipment spares how much percentage of amount will you spend? xii. Are you maintaining documentation for stock keeping? xiii. When will you re-order? xiv. Maintaining stock will make which of this following?

Design of questionnaire for low level companies

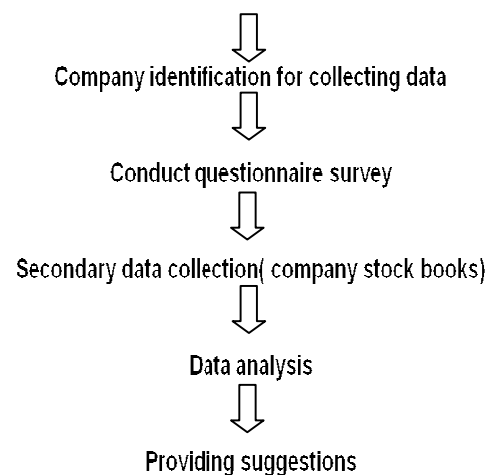


Figure-1
Schematic flowchart of the process routed in this work

For Medium And High Level Companies: i. Do you agree that there is need for stock management system in the organisation? ii. Whether you agree that you are including safety stock in your planning calculation? iii. How much importance will you give to stock management comparing to other works? iv. How much percentage amount of project cost will you invest in stock management? v. What according to you is the major benefit of going for an inventory management system in your company? vi. Does managing stock helps in growth of company? vii. In what way managing stock helps in growth of company and progress of the project? viii. What type of material access available for stock data? ix. What categories of professionals are managing your company stock? x. Which type of stock management system you are adopting? xi. How the company is selecting the vendor? xii. Describe the method which your company uses to categorize the items? xiii. What type of cross check you follow for stock management? xiv. How will you control stock overflow in construction site? xv. Whether training is given for stock management practices? xvi. What are all the data that your company is keeping related to inventory? xvii. Where the stock is usually stored? xviii. How far is the distance from project site to storage yard?

Results and Discussion

For Low Level Companies: Inference from the above figures: The above figures clearly says that they are stock management is the only way to control project cost and stock overflow. Maintaining receipts documents for the stock is the only record to crosscheck the inventory. They also transfer the stock and use the stock in other activity when there is stock overflow. Most of the stocks are procured and used by the company itself. ABC analysis is the best way to classify the items. Almost every company keep the material access as centralized.

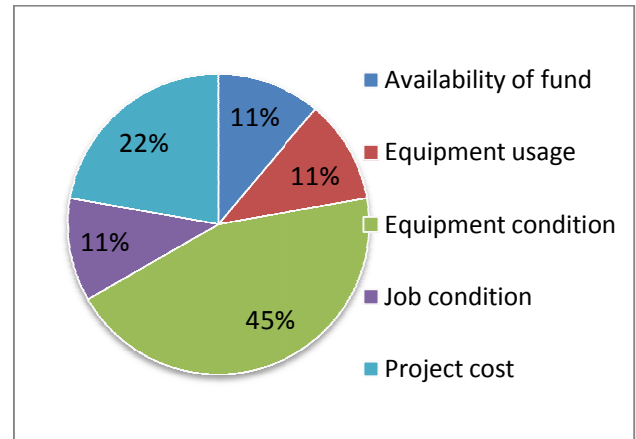


Figure-3
Criteria to maintain stock for equipment spares

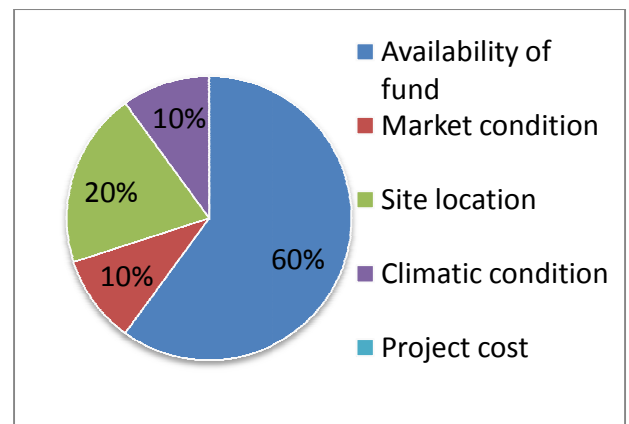


Figure-4
Criteria to maintain stock for materials

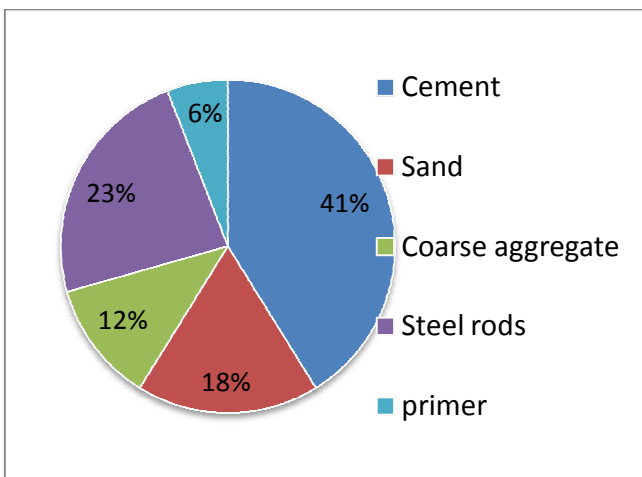


Figure-2
Kind of material stock

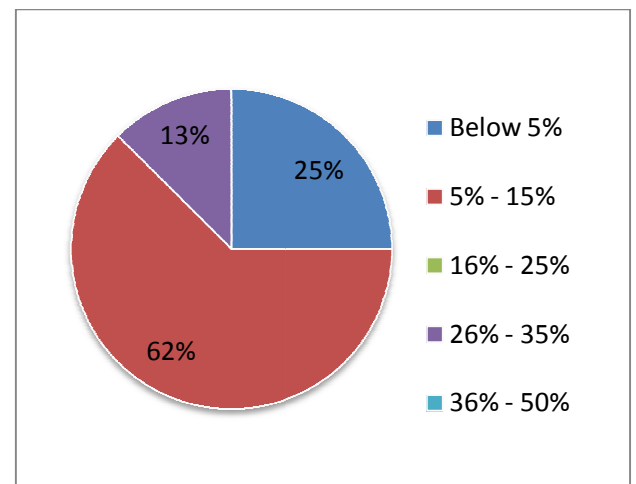


Figure-5
Stock for sand

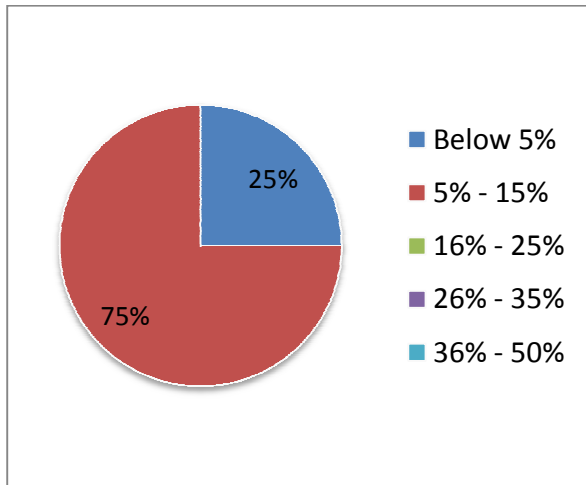


Figure-6
 Stock for Coarse aggregate

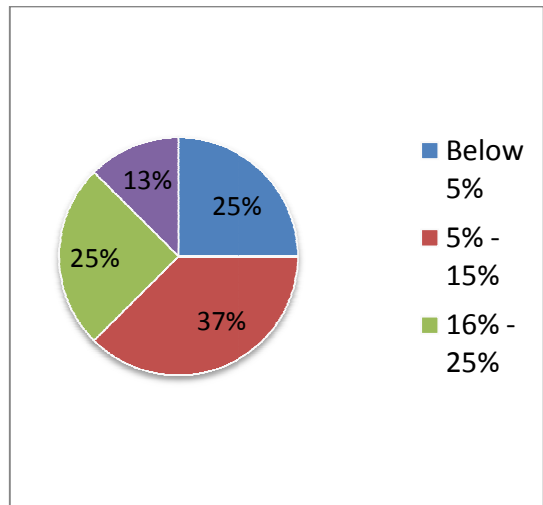


Figure-9
 Stock for Brick

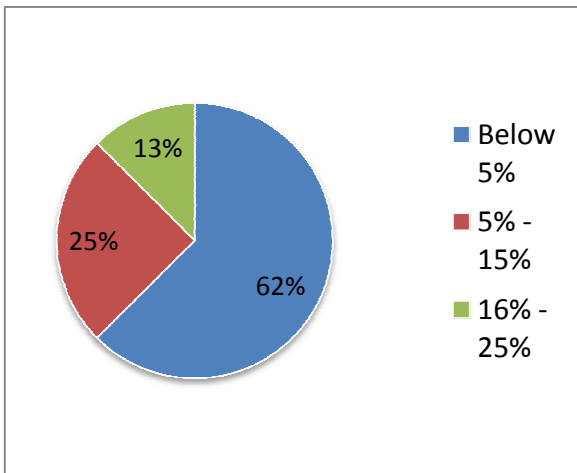


Figure-7
 Stock for primer

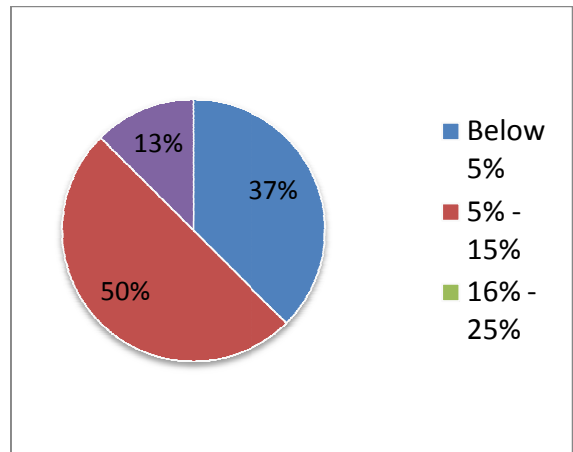


Figure-10
 Stock for Steel rod

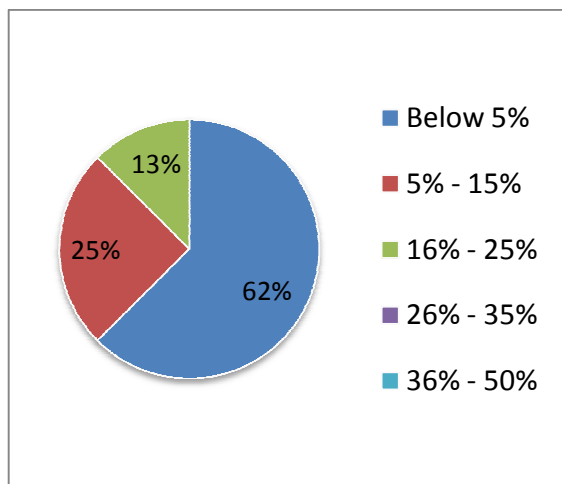


Figure-8
 Stock for cement

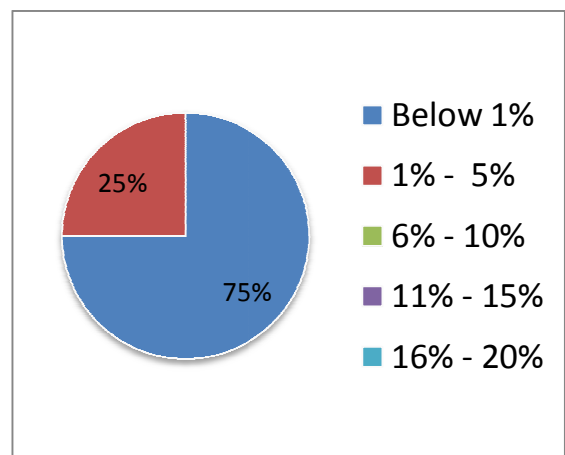


Figure-11
 Stock for equipment spares

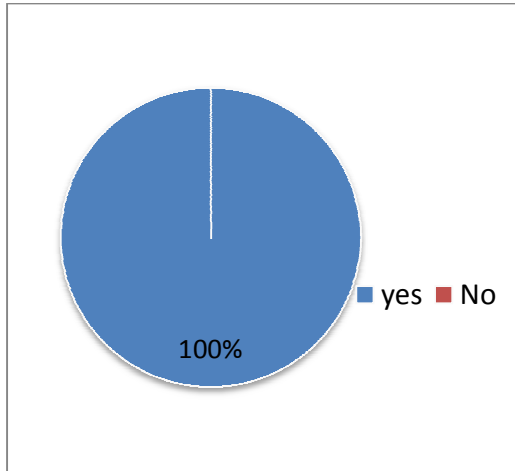


Figure-12
 Maintenance of document

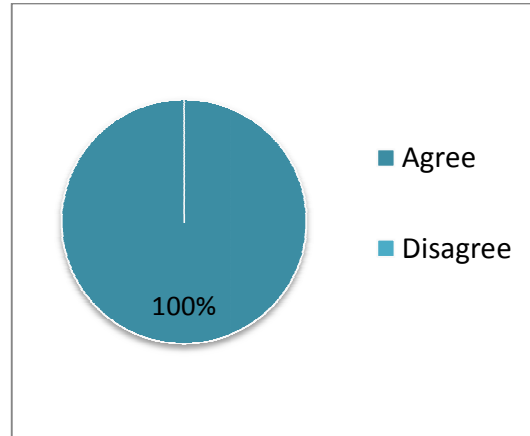


Figure-15
 Safety stock in your planning calculation

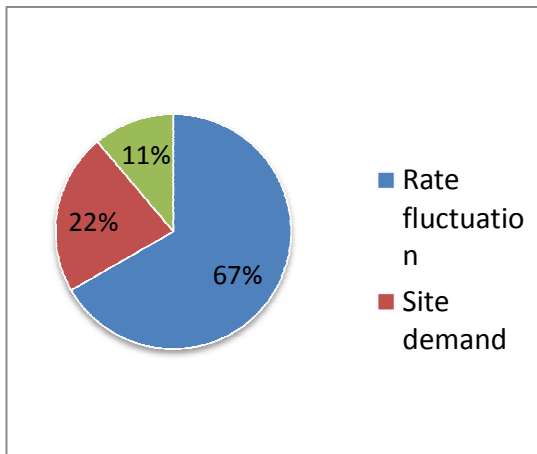


Figure-13
 Re-order

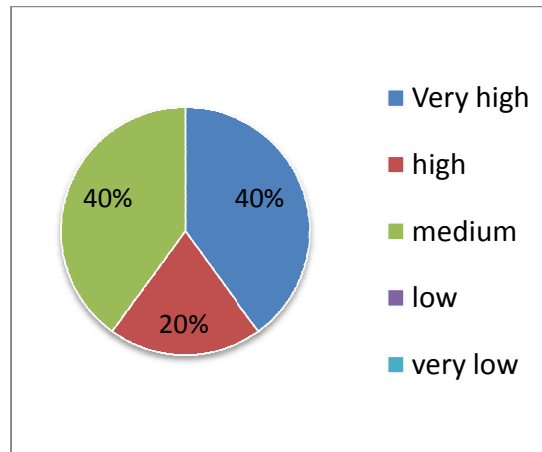


Figure-16
 Stock management compared to other works

For Medium and High Level Companies

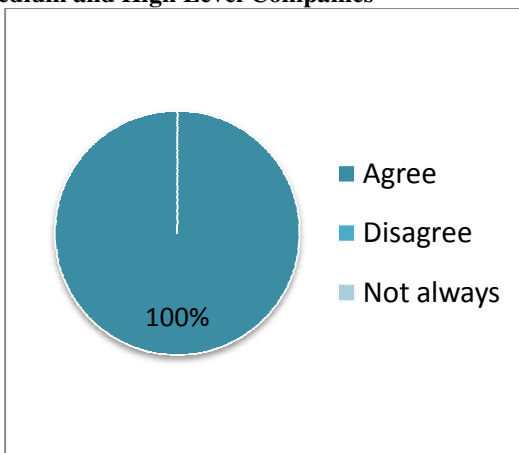


Figure-14
 Need for stock management

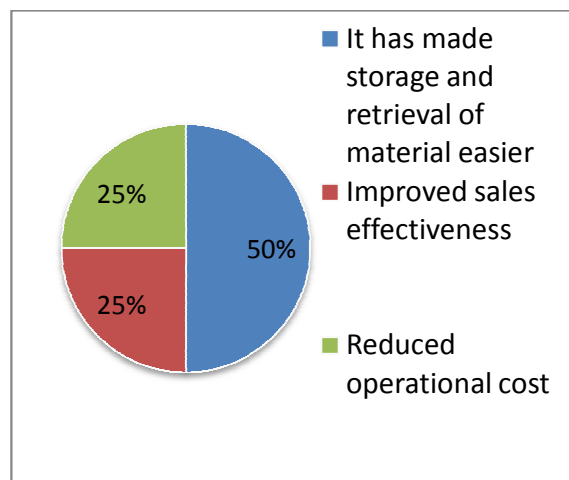


Figure-17
 Benefit of going for an inventory management

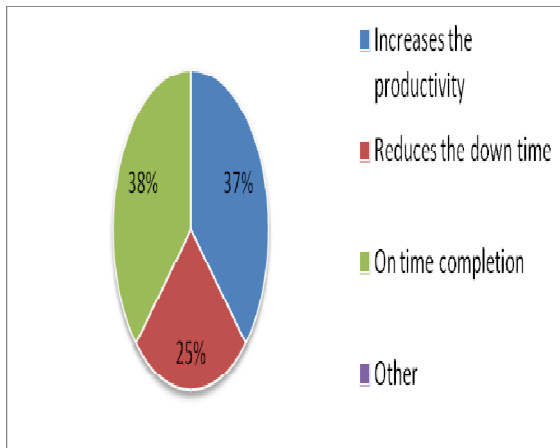


Figure-18
 Stock in growth of company

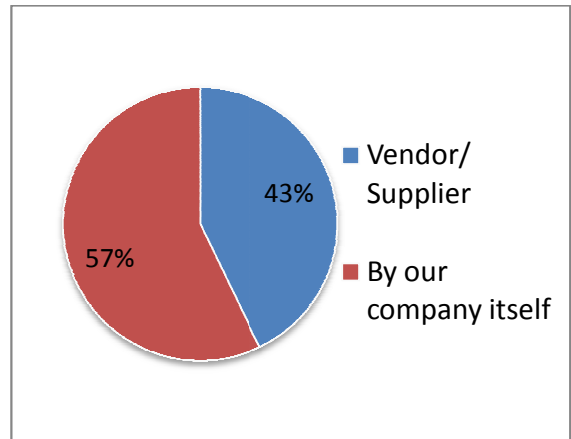


Figure-21
 Type of stock management system

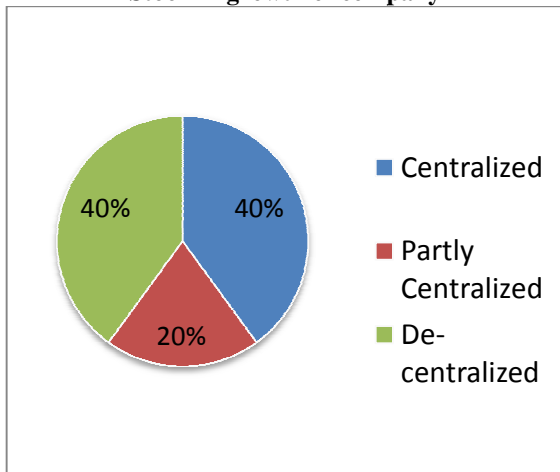


Figure-19
 Type of material access

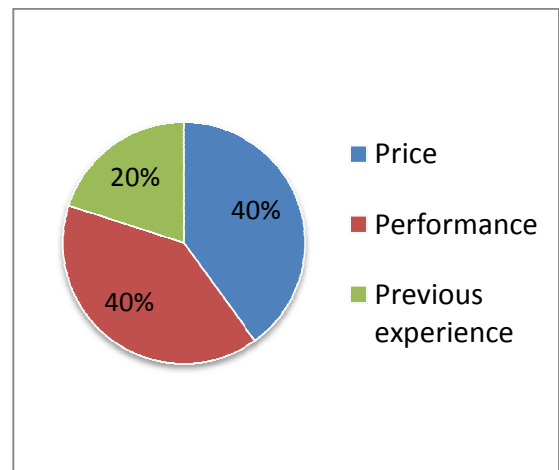


Figure-22
 Vendor selection

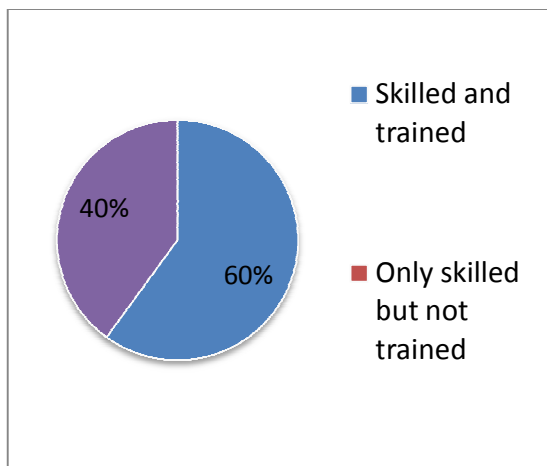


Figure-20
 Categories of professionals managing stock

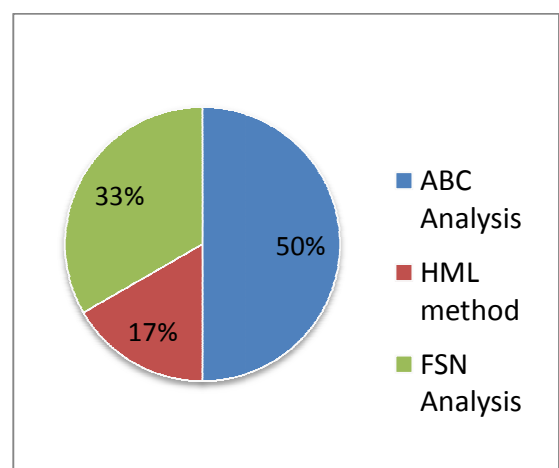


Figure-23
 Method to categorize the items

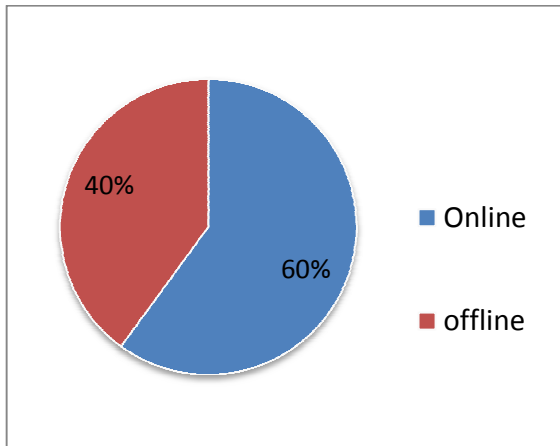


Figure-24
 Type of cross check

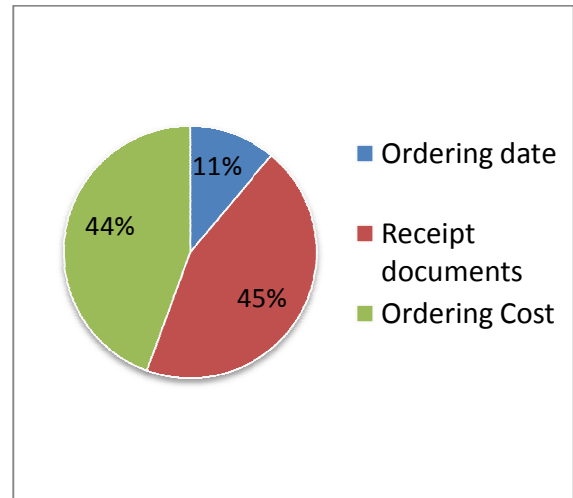


Figure-27
 Data kept related to inventory

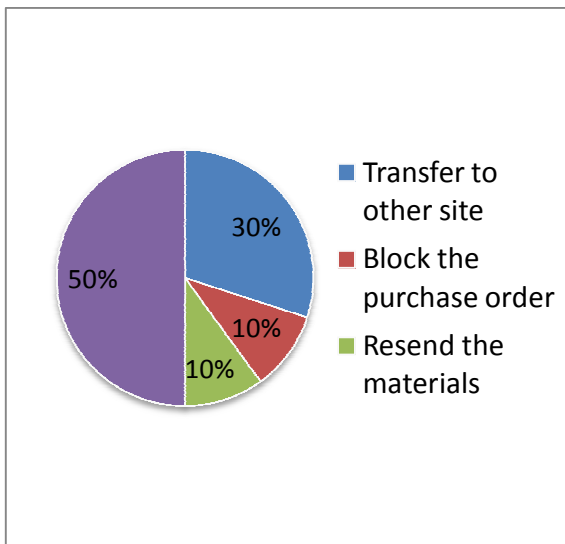


Figure-25
 Control of stock overflow

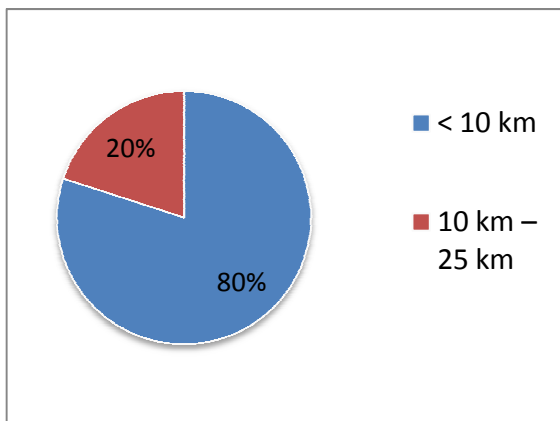


Figure-26
 Distance from project site

Table-1

ABC Analysis for Coconut Village
 (Analysis is done for single house in that village and it is based on the estimated data)

Sl. No	Description	Amount (Rs)	Cumulative (Rs)	Percentage (%)	Class
	Coconut Village	3447020			
1	Cement	511000	511000	14.82%	A
2	Sand	489400	1000400	29.02%	A
3	Steel	403260	1403660	40.72%	A
4	Coarse Aggregate	92400	1496060	43.4%	A
5	Bricks	416000	1912060	55.47%	A
6	Electrical works	108865	2020925	58.63%	B
7	Solid blocks	186305	2207230	64.03%	B
8	Plumbing	259800	2467030	71.57%	B
9	Grill	98490	2565520	74.43%	B
10	Wood works	125000	2690520	78.05%	B
11	Teak wood	35000	2725520	79.07%	B
12	Painting	312600	3038120	88.14%	C
13	Glass works	33600	3071720	89.11%	C

Inference from the analysis: The above table shows the analysis for a coconut village done for a private company. The analysis is based on the consumption values. Classification for ABC Analysis is listed below i. Class A type – High consumption value, ii. Class B type – Moderate Consumption value, iii. Class C type - Low consumption value From the Analysis 5 A items, 6 B items & 5 C items. It has been witnessed that the items belonging to category “C” are not paid much attention and the procurement of the same also causes delay. Hence class C items need special importance.

Conclusion

After conducting the questionnaire survey it has been observed that, almost 60% of the companies maintain stock for cement based on the fund available. They consider that maintaining below 5% cement stock will make them profit. Only 50% of companies maintain stock for steel bars and most of them maintain steel rod stock between 5%-10%. Companies also maintain stock for sand but their rate is between 5% -15%. Every companies are maintaining equipment spares and their rate is below 1%. Only 37% of companies maintain stock for bricks because more stock on brick will lock the capital. Every organization include safety stock in the planning calculation and 40% of them give very high importance for stock management comparing to others. Only 60% of companies use skilled and trained professionals for stock management. Among the companies following inventory control techniques ABC Analysis is the most used control technique. The 50% Companies use the stock overflow in other activities. Almost all companies say that maintaining stock will fetch them profit and they also do documentation work stock maintenance.

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