A STUDY ON PROCESS AND DOCUMENTATION AT CONTAINER FREIGHT STATION

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ABSTRACT

Container freight stations came into being as a strategic response by many ports to sort out the issues of congestion inside the port. It therefore becomes necessary to analyse the business models adopted by the CFS’s. The objective of this study were to establish models adopted by Container freight stations, the value a company offers to the customers that enable the customer to pay and hence allow the organisation to make profits. Some of the studies done in this area indicate that business models are key to enhancing a company’s performance and can also give it competitive advantage over other companies. During out study we learned about various Import/Export procedures carried out at CFS and the documentation. A majority of the CFS’s handled a variety of commodities and most of the customers were that the CFS had approached for business and they thus did not depend much on port rebates as a source of revenue. This that most of the CFS’s had changed their way of doing business in the changing environment. Thus the should be very clear guidelines on what exactly CFS’s are meant to do. The fact that they came in as a response to problems of congestion.

Keywords: - CFS, Turnaround, De-stuffing.

1. INTRODUCTION

Operation documentation is typically structured set of documents, arranged in a hierarchy. At the top of policies which are statements of guidance, or principles or roles, intend to guide decisions and behaviour to achieve specific outcomes. Subsequent documents in the hierarchy describes and provide instructions for activities that are used to implement. Each type of document, from top to bottom, provides increasing level of detail.

1.1 Need for study

The CFS can face so many problems during the process of import and export. The need for study is to implement effective flow in the CFS operation. This study helps to improve the process of export and import and time efficient procedures for documentation.

1.2 Objective of study

- To reduce the container in - out time.
- To reduce the process time.
- To redesign the internal documentation process.
- To reduce de stuffing time for the cargo.
- To reduce the difficulty of finding the cargo in the warehouse.

1.3 Scope of the study

- Study restricted to only to Sical CFS at Chennai
- Study restricted to port logistic only
• Scope was restricted to operations and documentation at the CFS

1.4 Limitations

• Redesigning of documentations could only be done internally
• It takes a mountain of procedures to have a change in the import and export process.

2. **REVIEW OF LITERATURE**

**Vaggelis Giannikas, Wenrong Lu, Duncan McFarlne, and James Hyde. (2013)** The need for more flexible, adaptable and customer-oriented warehouse operations has been increasingly intended as an important issue by today’s warehouse companies due to the rapidly changing preferences of the customers that use their services. They have discussed the opportunities of such an approach using a real example of a third-party-logistics warehouse company and we present the benefits it can bring their warehouse management system.

**Ramaa A. K N. Subramanya, T. M. Rangaswamy (2012)** Says in a supply chain, warehousing function is very critical as it acts as a node in linking the materials flows between the supplier and customer. Many companies have also customized their value proposition to increase their customer service levels, which has led to changes in the role of warehouses. This paper highlights the findings of the study carried out to evaluate performance levels and enhance productivity of the manual warehouses by developing a WMS framework and cost benefit analysis.

**Rene de Koster, Tho Le-Duc, Kees Jan Roodbergen (2005)** Order picking has long been identified as the most labour-intensive and costly activity for almost every warehouse the cost of order picking is estimated to be as much as 55% of the total warehouse operating expense. They have focused on optimal (internal) layout design, storage assignment methods, routing methods, order batching and zoning. The research in this area has grown rapidly recently. Still, combinations of the above areas have hardly been explored.

**Adam L. Birkholz, (2004)** Customer satisfaction and organization competitiveness are contingent upon implementing and improving existing logistics strategies. Thus, warehousing has become an integral part of a comprehensive logistics strategy for organizations. Organizations are continuing to stream line material movement in order to reduce customer shipment lead times and minimize inventory storage requirements. However, the implementation of technology into warehousing represents a beginning which current performance and improvement opportunities must be constantly evaluated.

**Jochem Sprengers, (2000)** This study shows how firms should manage planning and control related activities in warehouse systems in today’s world of rapidly changing customer's demand. This study first describes current, traditionally planning and control policies in warehouse systems, subsequently with new approaches to manage planning and control policies more efficient and to reduce response time in order to maintain warehouse performances in today’s world of rapidly changing customer's demand. It can be concluded that the main savings can be derived in planning related activities and recommended to put more effort in the development of new models instead of optimizing existing ones.

**Motwani, J. (2003)** had discussed the most important elements of lean manufacturing (LM), the strategies used by the company for implementing LM, and the significant benefits that were accrued in manufacturing operations. Explains the critical factors involved in the implementation of LM utilizing a business process change framework. The data for this study were obtained through interviews, questionnaire survey and archival sources.

**Leonardi, J., & Browne, M. (2010)** this study proposes a method for the calculation of the carbon footprint of international supply chains, focusing on the maritime sector. Using data from a survey of major companies comparing more than 25 import supply chains involving UK, France and Belgium, the main shipping characteristics were identified. This approach enabled a comparison to be made between each supply chain segment, expressed in grams of oil equivalent per kilogramme of product and grams of CO₂ equivalent per kilogramme of product. The approach adopted has limitations due to the limited number of supply chains for which it was possible to collect complete data from origin to destination.

3. **RESEARCH METHODOLOGY**
Research methodology is a way of systematically solve the research problem. It may be understood as a science of study how research is done scientifically. In it we study the various steps that generally adopted by researcher in studying his research problem along with the various steps that are generally adopted by a research along with the logic behind them.

### 3.1 Research Design

The research design used is **Descriptive design.**

#### Primary Data

In this project, primary data has been collected through observation and interview method to meet the objective of the study.

### 3.2 Sampling size & methods

The sample size taken for the study is 50 respondents in Sical CFS. The sampling method followed is “Non Probability” sampling method. The sampling unit of the study is 40. Here, convenience sampling has been adopted for collecting the primary data.

<table>
<thead>
<tr>
<th>Turnaround time</th>
<th>No. of responders</th>
<th>Percentage of responders</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 – 20 mins</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20 – 25 mins</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>30 – 40 mins</td>
<td>19</td>
<td>38%</td>
</tr>
<tr>
<td>Above 40 mins</td>
<td>27</td>
<td>54%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>

### 4. DATA ANALYSIS AND INTERPRETATION

#### 4.1 Turnaround time for de stuffing

The table shows the turnaround time for de stuffing.

<table>
<thead>
<tr>
<th>Turnaround time for de stuffing</th>
<th>No. of responders</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-20 mins</td>
<td>0</td>
</tr>
<tr>
<td>20-25 mins</td>
<td>0</td>
</tr>
<tr>
<td>30-40 mins</td>
<td>0</td>
</tr>
<tr>
<td>Above 40 mins</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
</tr>
</tbody>
</table>
Interpretation
From the above table 54% of responders say above 40 minutes of time is taken for de stuffing the cargos, 38% of responders say 30 – 40 minutes of time is taken for de stuffing the cargos and 8% of responders says 20 – 25 minutes of time is taken for de stuffing the cargo.

4.2 Difficulties in ware house
The table shows delay is occurring when de stuffing the cargo

<table>
<thead>
<tr>
<th>Delay occurring</th>
<th>No. of responders</th>
<th>Percentage of responders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>31</td>
<td>62%</td>
</tr>
<tr>
<td>No</td>
<td>19</td>
<td>38%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>

Interpretation
From the above table 62% of responders says delay is occurring in SICAL when the new cargo is arrived. That time there is no space is available in warehouse for de stuffing the cargo.

4.3 Delay time
The table shows how much time the cargo is waiting for de stuffing to want of space in ware house

<table>
<thead>
<tr>
<th>Cargo waiting time</th>
<th>No. of responders</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤4 hours</td>
<td>8</td>
</tr>
<tr>
<td>4 – 8 hours</td>
<td>20</td>
</tr>
<tr>
<td>&gt;8 hours</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
</tr>
</tbody>
</table>
Interpretation

From the above table 20% of responders says the delay time occurred in 4-8 hrs, 8% of responders say that <4 hours and 4% says >8 hours’ delay is occurred in.

4.4 Difficulties in finding the cargo in the warehouse

<table>
<thead>
<tr>
<th>Difficulty for finding cargo</th>
<th>No. of responders</th>
<th>Percentage of responders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>32</td>
<td>64%</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>36%</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100%</td>
</tr>
</tbody>
</table>

The table shows difficulty is faced for finding the cargo in the warehouse.
Interpretation

From the above table 64% of responders says the difficulty occurred in warehouse during finding the cargos and 36% says there is no difficulty in finding the cargo in the warehouse.

5. Findings

1. It’s found that usage of archaic procedures for the movement of logistics activities containerised cargo.

2. From the observation and interview method it’s found that 54% of responders say above 40 minutes of time is taken for de stuffing the cargos, 38% of responders say 30 – 40 minutes of time is taken for de stuffing the cargos and 8% of responders says 20 – 25 minutes of time is taken for de stuffing the cargo.

3. From the interview it’s found that 62% of responders says delay is occurring in SICAL when the new cargo is arrived. That time there is no space is available in warehouse for de stuffing the cargo.

4. From the observation and interview with responder 20% of them says the delay time occurred in 4-8 hrs, 8% of responders say that <4 hours and 4% says >8 hours’ delay is occurred in SICAL.

5. From the interview with the responders 64% of them says difficulty occurred in warehouse during finding the cargos and 36% says there is no difficulty in finding the cargo in the warehouse.

5.1 Suggestion

1. Should improve the processing speed in documentation.
2. Equipment usage should be increased for reducing time consumption
3. Allocation of specific space for each cargo for easy identification.
4. Usage of smart cards to swipe in the concern places for clearance of cargo whenever its checked.
5. Installation of mobile scanner for container to avoid stuffing and de stuffing time and cost.

6. Conclusion

Sical CFS is a reputed CFS in Chennai, they mainly handle containers from CCTL and CITPL terminals Chennai. Sical CFS has to increase storage planning in warehouse, they can reduce the turnaround time for stuffing and de stuffing the cargo by implementing new techs. The study resulted in a clear outline of the duties and responsibilities of company working as a CFS. And provided more knowledge regarding the CFS procedures, documentation process evolved in container movement, and warehouse management system etc.,