

## A Study on Transportation with Specific Reference to Load Planning and Route Scheduling in VRL Logistics

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### Abstract

Transportation plays a major role in logistics management. Transportation is used for the distribution of goods based on road services in cities and urban areas. In Logistics, trucks, and Lorries are most widely used in transportation technology today because the networks are easily accessible to deliver the goods to the customer. In this function of operational load planning problems roadways carriers in the literature of term roadways loading is ambiguously for different subproblems that appears during the process for trucks and lorry's in load planning and also this paper surveys the route scheduling problems met in cities and urban areas for goods distribution for customers comfortable and satisfied. As a result, identifies the challenges, time dependency, multi-level and trips for the distribution In this proposal, I suggest some of the benefits solutions save planning and loading time and improve customer services in the load planning and reduce transport costs, driver, and staffs working time, improve customer service in route scheduling in VRL LOGISTICS LTD for the transportation system.

**Keywords:** Transportation, Load planning, Load Analysis, Route Analysis, transportation cost.

### Objectives

- To study the load plans for trucks and load analysis for transportation.
- To study the route scheduling and to save the delivery time.
- To study customer satisfaction in delivering goods.
- To identify the problems faced by truck drivers during the goods delivery time.
- To identify the barriers of the system.

### **Statement of a problem**

The study of research is undertaken to about load planning process for trucks and route scheduling for delivering goods in transportation. This research to find out the answer to the following research questions.

- What are the problems faced by staffs in load planning and company while process in route scheduling?
- What are the issues faced by drivers during in delivery process?
- What are the expectations and requirements of the customers?
- Did goods are safety during in load planning and delivery time?

### **Need of the study**

- To reduce the transportation cost
- To reduce the driver working hours
- To increase the labour cost
- Goods deliver in short time

### **Scope of the study**

1. Identifying the problems in load planning functions and route scheduling system.
2. To solve the staffs and drivers queries
3. This study covers the customer's satisfaction in delivery services.

### **Research Methodology**

The research methodology is a technique used to analyse the process, identification about certain topic or study. In a research paper, the section allows the reader to critically evaluate the validity and reliability of the study.

### **Research Design**

Descriptive analysis is the study used for this research design. Descriptive analysis research is defined as a research method which describes the characteristics of the population being studied.

### **Study Area**

My study of the area is VRL LOGISTICS LTD. I have chosen this area because it provides a wide range of logistics services.

### **Sampling Technique**

The primary data is collected by convenient sampling method. The respondents for this study are selected systematically. Convenience sampling is a type of non-probability sampling, where the sample is taken from a group of people easy to contact or to reach.

### **Sample**

The following criterion is adopted to collect responses from the customers of our company.

### **Sample size**

The number of customers taken for the sample is 100 members.

### **Research Instrument**

The research instrument adopted was a structured questionnaire. For this research, a questionnaire consists of 28 questions on various dimensions indicating the perception towards the distribution process.

### **Statistical Tools**

The statistical tools used for this study are the following

- Percentage Method,
- Correlation Method,
- Chi-Square test,
- F-test.

### **Conclusion**

This paper may help to run successful system in logistics firms. The aim of the paper to create the customer's satisfaction and to improve the company's operations. It also shows the research to be made on the customer for the improvement of VRL Logistics.

### **Reference**

- Dr. S. Saravanan&Sathiyagothai B, (2017).Reverse logistics in food processing industries in India. International Journal of Economics & Management Sciences, 408(6).
- Dr. S. Saravanan and D. Arunkumar, "A conceptual model of Logistics information system effectiveness on retail outlets towards customer service quality in Tiruchirappalli" International journal of management and commence innovations. Vol 3, Issue 2, pp: 1058-1062.

- Nuortio, T., Kytöjoki, J., Niska, H., &Bräysy, O. (2006). Improved route planning and scheduling of waste collection and transport. *Expert systems with applications*, 30(2), 223-232.
- Potvin, J. Y., Xu, Y., &Benyahia, I. (2006). Vehicle routing and scheduling with dynamic travel times. *Computers & Operations Research*, 33(4), 1129-1137.
- Bektas, T., &Crainic, T. (2007). A brief overview of intermodal transportation. *CIRRELT*.
- Crainic, T. G., & Kim, K. H. (2007). Intermodal transportation. *Handbooks in operations research and management science*, 14, 467-537.
- Imai, A., Sasaki, K., Nishimura, E., & Papadimitriou, S. (2006). Multi-objective simultaneous stowage and load planning for a container ship with container rehandle in yard stacks. *European Journal of Operational Research*, 171(2), 373-389
- Bowersox, D. J., Closs, D. J., &Helferich, O. K. (1986). *Logistical management: a systems integration of physical distribution, manufacturing support, and materials procurement*.
- Sheu, J. B. (2007). An emergency logistics distribution approach for quick response to urgent relief demand in disasters. *Transportation Research Part E: Logistics and Transportation Review*, 43(6), 687-709.
- Choong, S. T., Cole, M. H., &Kutanoglu, E. (2002). Empty container management for intermodal transportation networks. *Transportation Research Part E: Logistics and Transportation Review*, 38(6), 423-438.
- hong Zhao, Q., Chen, S., Leung, S. C., & Lai, K. K. (2010). Integration of inventory and transportation decisions in a logistics system. *Transportation Research Part E: Logistics and Transportation Review*, 46(6), 913-925.
- Juan, A. A., Mendez, C. A., Faulin, J., De Armas, J., &Grasman, S. E. (2016). Electric vehicles in logistics and transportation: A survey on emerging environmental, strategic, and operational challenges. *Energies*, 9(2), 86.