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A STUDY ON CHALLENGES FACED BY LORRY DRIVERS REFERENCE BY E2E SUPPLY CHAIN SOLUTIONS LIMITED

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Abstract

In this essay, we propose to give a review of the literature on the issue of lorry driver scheduling and to categorise it according to four criteria, with the main goal of providing a framework for categorising the works on driver scheduling. Each article's background, study technique, and findings are briefly summarised in the literature review. To obtain a range of viewpoints on the difficulties experienced, the questionnaire will be given to a sample of truck drivers from various locations and nations. Descriptive statistics will be used to analyse the data and determine the biggest logistical issues faced by truck drivers. The results of this study can assist logistics businesses and policymakers in better understanding the difficulties experienced by lorry drivers and in developing strategies to overcome those difficulties, such as expanding communication channels, offering additional rest sites, improving driving conditions, and expediting paperwork procedures. In the end, this can assist increase the job happiness and wellbeing of truck drivers and contribute to the logistics sector's overall effectiveness and sustainability.

Keywords: *Truck Drivers, Drivers Scheduling, Developing Strategies, Logistics Sector.*

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1. Introduction

As it permits the transportation of products and resources throughout the world, the logistics sector is one of the most important sectors in the world. The work of lorry drivers, who are in charge of moving products from one place to another, is crucial to the sector. However, the difficulties truck drivers confront on the job can have an effect on their health, happiness, and work satisfaction.

Growing concern has been expressed in recent years over the difficulties faced by truck drivers during logistics. Researchers have noted a number of difficulties faced by truck drivers, including extended working hours, exhaustion, stress, and physical strain. These difficulties may lead to harmful health effects including obesity, cardiovascular disease, and musculoskeletal issues. In addition, truck drivers must adhere to convoluted and complicated transportation and logistical laws.

Another difficulty for truck drivers is communication. Logistics operations depend on efficient communication with dispatchers, clients, and other logistics professionals. Language hurdles, inadequate communication methods, and a lack of coordination, however, can cause delays, mistakes, and irritation for truck drivers.

For truck drivers, navigating via unknown routes and locales can be difficult, especially in nations with various road networks and varying driving laws. Finding appropriate parking and rest spots can be difficult, especially in metropolitan areas with a lack of parking. Overall, the difficulties faced by truck drivers throughout logistics are complicated and multidimensional. A comprehensive strategy that takes into account logistical and regulatory aspects, as well as the health and working conditions of truck drivers, is needed to address these issues. Therefore, the purpose of this research project is to discover, assess, and offer solutions to the logistical issues faced by truck drivers.

Objective of Study

The objective of the study is as follows:

- to investigate the numerous logistical physical, psychological, and social issues confronted by truck drivers.

- to research how these difficulties affect the health, happiness, and work satisfaction of truck drivers.
- to look into the logistical and regulatory aspects of these issues and how they affect truck drivers.
- In order to solve these issues and enhance the working conditions for truck drivers, it is important to establish best practices and initiatives.
- To propose suggestions for politicians, transportation providers, and other stakeholders on how to enhance truck drivers' working conditions and handle the logistical issues they encounter

Scope and Limitations

The difficulties confronted by truck drivers during logistics are the only subject matter of this research study. The research will concentrate on truck drivers that move commodities and materials between various sites, including intrastate and interstate travel. The study will focus on developed and emerging nations while taking into account the difficulties faced by truck drivers in various geographic regions.

However, it is important to recognise the limitations of this study. First, because the study depends on self-reported data from truck drivers, it might be biased by social desirability and response bias. Second, as they work in unofficial marketplaces and are not employees of established transportation corporations, truck drivers may not have had their experiences well. The difficulties confronted by truck drivers during logistics are the only subject matter of this research study. The research will concentrate on truck drivers that move commodities and materials between various sites, including intrastate and interstate travel. The study will focus on developed and emerging nations while taking into account the difficulties faced by truck drivers in various geographic regions.

2. Review of Literature

Lorry drivers, who encounter a variety of problems on the job, play a vital role in the logistics sector. Long work hours, exhaustion, tension, and physical strain are only a few of the difficulties faced

by truck drivers that have been recognised by research (Buckley, O'Hagan, & Fullen, 2016; Lai, Cheng, & Wang, 2016; Leggett, 2017). According to Sabbagh-Ehrlich et al. (2012), these difficulties may lead to detrimental health consequences including cardiovascular disease, obesity, and musculoskeletal diseases. The requirement to abide by laws and standards pertaining to logistics and transportation is a substantial additional difficulty for truck drivers. This includes limitations on the number of hours one may drive, the weight and size of the vehicle, the documents, and border checks (Forsyth, 2015). Penalties and fines for breaking these rules may have an effect on the lorry drivers' and logistics businesses' financial stability (Nemeth, 2018).

Another difficulty for truck drivers is communication. For logistics operations to be successful, communication between dispatchers, clients, and other logistics staff is essential. However, truck drivers may experience delays, mistakes, and dissatisfaction due to a lack of coordination, inadequate communication channels, and language problems (Karimi-Maleh & Bagheri, 2019).

Additionally, it might be difficult for truck drivers to navigate through new areas and routes, especially in nations with various road networks and inconsistent traffic laws (Sabbagh-Ehrlich et al., 2012). It can be difficult to locate appropriate parking and rest facilities, especially in metropolitan areas with a shortage of parking spots (Kotzab, Teller, & Grant, 2011).

Overall, the difficulties faced by truck drivers throughout logistics are complicated and multidimensional. A comprehensive strategy that takes into account logistical and regulatory aspects, as well as the health and working conditions of truck drivers, is needed to address these issues.

3. Research Methodology

A mixed-methods research approach will be used for this study to collect both quantitative and qualitative data. The study will gather quantitative information on the difficulties experienced by truck drivers during logistics using a Likert scale questionnaire. A sample of truck drivers who work

for official transportation firms in various areas will be asked the questionnaire

In-depth interviews with a sample of truck drivers will also be conducted as part of the study to collect qualitative information on the difficulties in logistics they encounter. Semi-structured interviews will be performed in person or through video conference.

The research will choose truck drivers who satisfy the qualifying requirements using purposive sampling. Lorry drivers that work for recognised transportation firms, have at least a year of experience in the field, and move materials and commodities between different sites all meet the study's inclusion requirements.

Descriptive statistics like mean, standard deviation, and frequency distribution will be used to analyse the quantitative data gathered from the Likert scale questionnaire. Thematic analysis will be used to find themes and patterns in the qualitative data obtained from the in-depth interviews. In order to combine the quantitative and qualitative data and offer a thorough knowledge of the difficulties experienced by truck drivers during logistics, the study will ultimately employ a triangulation technique. Based on the research's findings, the study will also offer suggestions for overcoming these difficulties.

4. Data Analyses and Construe

This research executed Percentage analysis, Anova, Chi Square analysis and correlation for examining various variables which supports the frame objectives.

Chi Square Analysis

Aim: Chi square test executed to find the relationship between Location and Traffic jams

H_{01} : There is no significant relationship between the variable

Chi-Square Table 4.1.1

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	35.390 ^a	12	<.001
Likelihood Ratio	35.068	12	<.001
Linear-by-Linear Association	6.088	1	.014
N of Valid Cases	30		

a. 20 cells (100.0%) have expected count less than 5. The minimum expected count is .13.

Table 4.1.2

Correlations			
		Location	How do you encounter traffic jams when moving goods?
Location	Pearson Correlation	1	-.458*
	Sig. (2-tailed)		.011
	N	30	30
How do you encounter traffic jams when moving goods?	Pearson Correlation	-.458*	1
	Sig. (2-tailed)	.011	
	N	30	30

*. Correlation is significant at the 0.05 level (2-tailed).

Inference

The above table show the result of Chi square analysis value is $0.001 < 0.05$. thus the null hypothesis is rejected. Therefore, there is a significant relationship between location and traffic jams. There is a negative correlation between location and traffic jams.

Aim: Chi square test executed to find the relationship between Strict delivery schedule and Theft

H₀₁: There is no significant relationship between Strict delivery schedule and Theft

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.210 ^a	4	.378
Likelihood Ratio	3.856	4	.426
Linear-by-Linear Association	.240	1	.624
N of Valid Cases	30		

a. 7 cells (77.8%) have expected count less than 5. The minimum expected count is .50.

Inference

The value of significance, $0.378 > 0.05$. therefore, the null hypothesis is accepted. There is no significant relationship between Strict delivery schedule and Theft.

Aim: Chi square test executed to find the relationship between Strict delivery schedule vs weather condition

H₀₁: there is no significant relationship between Strict delivery schedule and weather condition

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.293 ^a	6	.507
Likelihood Ratio	5.495	6	.482
Linear-by-Linear Association	2.659	1	.103
N of Valid Cases	30		

a. 11 cells (91.7%) have expected count less than 5. The minimum expected count is .50.

Inference

The value of significance, $0.378 > 0.05$. therefore, the null hypothesis is accepted. There is no significant relationship between Strict delivery schedule and Theft.

Anova

AIM: Anova executed to find the variance between Strict delivery schedule and Theft

H₀₁: There is no variation between Strict delivery schedule and Theft

ANOVA					
How challenging do you find keeping to strict delivery schedules?					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.573	3	1.191	1.466	.247
Within Groups	21.127	26	.813		
Total	24.700	29			

Inference

The value of significance, $0.247 > 0.05$. therefore, the null hypothesis is accepted. There is no significant difference between Strict delivery schedule vs Theft. Thus, there is relation.0

Aim: Chi square test executed to find the relationship between Bad weather and cargo physically

H₀₁: there is no significant relationship between Bad weather and cargo physically.

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.873 ^a	6	.181
Likelihood Ratio	10.394	6	.109
Linear-by-Linear Association	.567	1	.451
N of Valid Cases	30		

a. 10 cells (83.3%) have expected count less than 5. The minimum expected count is .50.

Inference

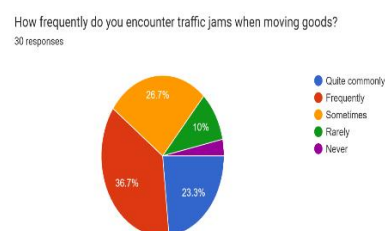
The value of significance, $0.181 > 0.05$. therefore, the null hypothesis is accepted. There is no significant relationship between loading vs cargo physically.

Percentage test



Inference

The picture of pie chart represents the diversification of challenging faced in keeping strict schedules.



Inference

The picture of pie chart represents the diversification of traffic jams encountered in frequency of time.

5. Findings

The study discovered that lorry drivers face a variety of difficulties that affect their ability to do their jobs effectively, their general well-being, and their overall experience in the logistics sector. The data analysis produced the following conclusions:

weariness and extended work hours: Lorry drivers reported routinely working long shifts without enough breaks, which resulted in weariness and exhaustion. This puts their safety at risk and makes accidents more likely.

Communication issues: Lorry drivers reported having trouble getting the attention of dispatchers and other logistical staff. Significant obstacles in the logistics communication process include language

hurdles, inadequate communication channels, and coordination problems.

Having access to parking and rest places is important since it might be difficult for truck drivers to discover these facilities while travelling. The lack of parking places, especially in metropolitan areas, increases stress and makes it difficult for drivers to observe recommended rest hours.

Border checks and customs inspections: Delays and delays brought on by these procedures were identified as regular difficulties. These delays cost drivers and logistics organisations money and lead to lost time, increased stress, and other negative effects.

Management of paperwork and documentation: Lorry drivers emphasised the difficulties in handling paperwork and documentation for logistics and transportation. The numerous administrative activities and documentation requirements add to the workload and lower productivity.

Navigating via unexpected roads and areas has proven to be a regular issue. Diverse road networks, inconsistent traffic laws, and poor navigational aids make it difficult to plan routes effectively and make deliveries on time.

Work-life balance: Lorry drivers discussed the difficulties they faced in keeping a positive work-life balance. There are stresses on interpersonal connections and general wellbeing due to the demanding nature of the job, long working hours, and time away from family and social activities.

6. Conclusion

The research study on the problems experienced by truck drivers during logistics gives important insights into the issues and impediments faced by these crucial professionals in the sector. The results demonstrate the complexity of the problems, which span logistical, psychological, social, and physical dimensions.

Long work hours and exhaustion endured by lorry drivers endanger not just their own health but also the safety of those on the road. Communication problems, such as language difficulties and coordination concerns, make it difficult for dispatchers and logistics staff to work efficiently, which causes delays. The tension and exhaustion

that drivers endure are made worse by the scarcity of parking and rest spaces.

For truck drivers, delays and administrative difficulties are caused by border restrictions, customs inspections, and onerous documentation requirements. Their task becomes more difficult and has an influence on delivery times when they must navigate via unknown routes and regions with various driving laws. The ability of drivers to maintain a healthy work-life balance is further hampered by the lengthy absences from their families and difficult hurdles they encounter in doing so.

For the welfare and job satisfaction of truck drivers, it is critical to improve working conditions and address these issues. Stakeholders must work together on this, including legislators, transit providers, and business organisations. Infrastructure improvements that include enough parking and rest places can reduce stress and weariness. Coordination can be enhanced and mistakes may be decreased with effective language assistance and communication routes.

Regulations should be reformed with an emphasis on easing the unique difficulties experienced by truck drivers, providing fair working hours, and reducing the paperwork and documentation procedures. Route planning and driving skills can be improved by investing in training programmes and navigation technology. To recruit and keep competent truck drivers, it's critical to foster a work climate that values work-life balance.

The logistics sector can provide a safer, more effective, and sustainable workplace for truck drivers by addressing these issues. Improved working conditions will increase employee satisfaction, lower turnover rates, and eventually result in improved customer service. Additionally, the safety and well-being of truck drivers will be given first priority, improving both their physical and emotional health.

In conclusion, it is critical for the industry's overall performance to understand and handle the difficulties experienced by truck drivers throughout logistics. The knowledge collected from this study

may be used to improve policy development and decision-making, assuring the welfare and contentment of truck drivers while improving the effectiveness and dependability of logistical operations.

Reference

- [1] Buckley, J. P., O'Hagan, A., & Fullen, B. M. (2016). Management of driver fatigue in the road transport industry: A review of the literature. *Journal of Transport & Health*, 3(3), 256-267.
- [2] Forsyth, P. (2015). Compliance in transport and logistics: a review of the literature and practitioner knowledge. *Research in Transportation Business & Management*, 15, 3-11.
- [3] Karimi-Maleh, H., & Bagheri, H. (2019). A review on challenges of logistics and supply chain management in Iranian industry. *Journal of Cleaner Production*, 227, 951-965.
- [4] Kotzab, H., Teller, C., & Grant, D. B. (2011). Sustainability and energy efficiency in logistics. In *Sustainable logistics and supply chain management* (pp. 3-15). Springer.
- [5] Lai, I. K., Cheng, T. E., & Wang, X. (2016). A review of logistics and supply chain management research in China: From general to specific. *Journal of Business Research*, 69(12), 5317-5323.
- [6] Leggett, S. (2017). An exploration of the health and well-being of lorry drivers: a focus on sleep. *Occupational Medicine*, 67(8), 621-626.
- [7] Németh, A. (2018). Economic impact of regulation in the road transport industry. In *Handbook of Research on Entrepreneurship and Marketing for Global Reach in the Digital Economy* (pp. 366-380). IGI Global.