

Assessing the Current Level of Transport Education and the Impact on Safety Compliance Among Road Operators in Ogbomoso, Oyo State

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Abstract

The road transportation sector in the Ogbomoso area of Oyo State plays a critical role in facilitating the movement of people, goods, and services, thereby supporting local economic activities. Despite its importance, there remains limited understanding and implementation of transport education, safety compliance, and regulatory frameworks among road transport operators in the region. This study seeks to assess the level of transport education among road users and identify the challenges faced by operators in accessing such education. A survey research design was adopted, utilizing structured questionnaires and interviews to collect data. The study population comprised 310 individuals, including 210 public motor park drivers (based on 2024 park management records), 30 administrative staff and drivers from private transport companies such as Tribel Global Motors (TGM) and MST Executive Transport Service, and 70 officials from the Federal Road Safety Corps (FRSC), Ogbomoso Area Command. A sample of 175 respondents was selected using the Taro Yamane formula. Data were analyzed using descriptive statistics (percentage counts) and inferential analysis through multiple

regression. Findings revealed that while slightly more than half of the respondents had received some form of transport education, significant gaps persist, particularly in formal training and safety regulation awareness. The study concludes that the overall level of transport education among road operators in Ogbomoso remains low, underscoring the urgent need for enhanced educational campaigns and training programs aimed at promoting safety compliance and regulatory adherence. It recommends coordinated efforts among government agencies, transport unions, and private stakeholders to improve access to structured driver education and regulatory awareness.

Keywords: Transport Education; Road Operators; Road Transportation; Drivers' Training; Safety Compliance

INTRODUCTION

The transportation systems constitute an essential component of logistics and strategic planning, particularly when vehicles are employed to transfer individuals or goods from one location to another. This encompasses the movement facilitated by diverse modes of transport, including automobiles, buses, maritime vessels, aircraft, and even extraterrestrial travel. Transportation systems are designed in a myriad of scales, spanning from localized networks such as urban bus services to extensive national distribution frameworks. (April, 2017).

Transport education encompasses a spectrum of both formal and informal training initiatives, courses, and certifications designed to equip road transport operators with the requisite knowledge and competencies necessary for the effective execution of their responsibilities (Oyesiku et al., 2019).

Among all the commodity transfers to and from seaports, a significant proportion, specifically two-thirds, is managed through road transport, whereas nearly ninety percent of all internal logistics of goods and services occur via roadways (Onakomaiya, 1980; Salisu and Oyesiku, 2020). This underscores the necessity for governmental policies and priorities to concentrate on the enhancement of the road transport sector by promoting transport education and awareness initiatives within the domain of road transportation, in addition to augmenting financial resources allocated to the road transport sub-sector.

However, in the road transport sector, human capital development has been vigorously pursued over the years, incorporating both training and education but it is still a far cry to the need of the sector. (Ajiboye, 2007).

Literature Review and Conceptual Understanding

Road Transport System

Nigeria's road transport history began in the early 1900s when pre-existing trails were broadened to accommodate motor vehicles. These early roads aimed to ease the burden of relying on human porters for colonial administrators and to connect local areas with railway hubs for exporting goods. Construction started in 1903 in the north, with a cart and mule route from Zaria to Zungeru, and in 1906 in the south, with a road connecting Ibadan and Oyo. (Patience and Chidinma, 2019).

Nigerian roads accommodate diverse modes of transport, from buses and cars to trailers, bicycles, pedestrians, and even animals. However, a lack of pedestrian walkways creates safety concerns, exacerbated by the rise of commercial motorcycles. Poor road maintenance further contributes to high accident rates. The types of vehicles using these roads have also evolved. While dual-purpose "mammy wagons" were common in the 1950s, they've been largely replaced by 10-15 tonne trucks/lorries and 30-tonne container trucks. Heavy tankers transport fuel and petroleum products. Many roads suffer from misuse, with axle loads frequently exceeding the designed 9-tonne limit. Trucks and trailers as heavy as 15 tonnes often use these roads, significantly reducing their lifespan, especially during the rainy season. Inadequate routine, periodic, and emergency maintenance further deteriorates road conditions across the country. Without proper upkeep of roads and bridges, Nigeria's desired socio-economic development will remain challenging. (Onokala, 2002; Patience and Chidinma, 2019).

Nigeria's economic development owes a significant debt to road transportation. Roads facilitated the opening of previously undeveloped agricultural, industrial, and residential areas, bringing modern transport to rural interiors. This connectivity fostered greater regional integration, shifting the focus away from waterways and rail to road networks. The expanding road system spurred the introduction of larger, faster, and more comfortable vehicles, boosting interregional trade. This trade, in turn, promoted national unity, improved nutritional diversity, and raised the economic well-being of traders.

Consistent high demand for road transport in both rural and urban settings reflects its recognized role as a crucial driver of regional, national, urban, and rural development. (Onokala, 2002).

Transport Education

Education, as a mechanism for the advancement of human resources, equips trainees with the requisite technical, workplace, and academic skill competencies, alongside managerial responsibilities pertinent to the transportation sector. It fosters the development of the trainee's personality, behavioral tendencies, and performance potential, independent of any particular occupational context. Through the domain of transport and logistics education, individuals are expected to acquire a comprehensive array of knowledge, skills, and attitudes, while simultaneously cultivating personal effectiveness competencies and managerial acumen, enabling their integration into any facet of the transport industry. (Oyesiku et al., 2019)

Transport education, which constitutes a spectrum of both formal and informal training initiatives, courses, and certifications, serves to equip road transport operators with the requisite knowledge and competencies to effectively execute their professional responsibilities (Oyesiku et al., 2019). Numerous scholarly investigations underscore the critical importance of transport education in enhancing operational efficiency, promoting safety protocols, and improving overall performance within the road transport industry (Nwafor et al., 2019). Specialized training Programs impart necessary skills to road transport operators, including defensive driving strategies, cargo management, vehicle upkeep, and customer relations, all of which facilitate more efficient operations and superior service delivery within the road transport framework (Nwafor et al., 2019).

Regarding road safety, the provision of transport education to drivers is deemed the paramount priority for investment in human capital development (Timmermans et al., 2019). A significant concern for transportation authorities responsible for the formulation of training programs for commercial drivers is the necessity to analyze their attitudes towards the training offerings (Abbas et al., 2023).

Owing to the critical role that training programs play in enhancing road safety within traffic systems and improving transportation productivity, numerous studies have demonstrated that the efficacy of road transport education is assessed based on the knowledge and conduct of commercial drivers (Nwadinigwe et al., 2018). Consequently,

the notion of road transport education has been identified as a significant element in interventions aimed at driver education. The educational programs designed for drivers encompass not merely the instruction on the mechanics of driving but also focus on cultivating suitable behaviors, attitudes, and decision-making capabilities that empower them to navigate road traffic scenarios in a responsible and secure manner, thereby mitigating the incidence of road accidents and traffic (Nwadinigwe et al., 2019).

The Road Operators

Schwela (2008) categorized road users as motorists, motorcyclists, bicyclists, and tricyclists, along with pedestrians and animals. Road transport undeniably impacts everyone's daily lives. It's a fundamental component of our society, facilitating the distribution of goods, providing mobility for various demographics, and enabling access to work, education, and leisure activities. In urban areas, road infrastructure occupies a considerable portion of land. The human cost is stark, as road transport remains a leading cause of fatalities. Furthermore, its effects extend beyond the roadways, influencing residential areas, public spaces, businesses, and the global environment. A crucial step in mitigating these negative consequences is gaining a deeper understanding of the human factors involved. Currently, crucial data is lacking. This includes a comprehensive understanding of road users' demographics (age, gender, experience, health), driving characteristics (personal, commercial, professional), and usage patterns (frequency, duration, location). Similarly, the interplay between diverse road users and vehicle types, and the dynamics of these interactions, remain largely unknown. Understanding users' and communities' risk perceptions and attitudes toward road transport and safety is also essential, but presently unavailable. Establishing a baseline of current road user interactions is critical for forecasting the impact of future population shifts and increased traffic. This knowledge of user groups, travel patterns, and interaction dynamics is intended to inform government and industry decisions, optimize road design and driver training, and ultimately support a more sustainable transportation system. (Samuel Charlton et al., 2002)

METHODOLOGY

The City of Ogbomoso Township is constituted by the North and South local government councils; it is located in the western part of Oyo state of Nigeria. Ogbomoso North Local Government Area came into existence on September 24, 1991, as a result of

the splitting of the former Ogbomoso metropolis into two on Tuesday. Ogbomoso North Local Government Area is bounded in the North and the East by Surulere Local Government Area, in the South by Ogbomoso South Local Government Area and in the West by Orite Local Government Area. Ogbomoso North has its headquarters located at Kinnira, Ogbomoso and Ogbomoso North is urban in outlook. The study population is made up of about 210 public motor parks drivers, 30 private company's administrative staffs and drivers and 70 FRSC officers, given a total population of 310. Purposive sampling technique was used in the selection of one city and two Local Government Areas from the three senatorial districts in Oyo state while random sampling technique was used in selecting the four (4) motor parks aforementioned among other motor parks situated within Ogbomoso North and South. The study employed descriptive research design with the use of a well-structured questionnaire to randomly sampled 174 transport workers. A semi-structured interview was also conducted with a subset of 20 participants to gain insights into the perceptions and experiences related to safety and transport education.

RESULTS AND DISCUSSION

Socio-Economic characteristics of the respondent

The table 1 below showed the gender distribution of the respondents and it was revealed that 67.8% of the respondents making 118 respondents were male while 32.2% of the respondents making 56 respondents were female. This indicates that there was a higher participation of males in the survey compared to females. Also, the Table revealed that 24.1% of the total respondents making 42 respondents are within the age range of 18-29 years of age, 35.6% of the total respondents making 62 respondents fall within the age range of 30-39 years of age, 23.0% of the total respondents making 40 respondents fall within the age range of 40-49 years of age, 17.2% of the total respondents making 30 respondents fall within the age range of 50 and above years of age This implies that the survey had a relatively balanced representation of different age ranges, while having people of the age range 30-39 been the most set of people who participated in the survey. It was revealed that 32.2% of the total respondents making 56 respondents were single, 58.6% of the total respondents making 102 respondents were married, 2.9% of the total respondents making 5 respondents were divorced, and 4.0% of the total respondents making 7 respondents separated and 2.3% of the respondents making 4 respondents were

widow/widower. This suggests that the majority of the respondents were married or single. Furthermore, 27.6% of the total respondents making 48 respondents had access to primary education, 28.7% of the respondents making 50 were SSCE holders, and 43.7% of the total respondents making 76 respondents had access to Tertiary education. This suggests that a significant portion of the respondents had Tertiary education qualifications. Additionally, 43.1% of the total respondents making 75 respondents were drivers, 7.5% of the total respondents making 13 respondents were transport managers, 24.1% of the total respondents making 42 respondents were FRSC officers, 25.3% of the respondent making 44 respondents falls under the category of other occupations. This indicates that the highest number of people who participated in the survey were the drivers. Apparently, 29.3% of the total respondents making 51 respondents responded that they own a car and 70.7% of the total respondents making 123 respondents responded that that they do not own a car. This suggests that car ownership was relatively low among the respondents, with slight majority owning a car.

More so, 23.6% of the total respondents making 41 respondents ply the road more than once in a week, while 76.4% of the total respondents making 133 ply the road every day. This indicates that we have a higher percentage of respondents who ply the road every day. Also, 10.3% of the total respondents making 18 respondents uses motorcycle has the major means of transportation, 18.4% of the total respondent making 32 respondents uses private car as the major means of transportation and 71.3% of the total respondents making 124 respondents uses the taxi/bus has the major means of transportation. This indicates that the taxi/bus means of transportation is the major means of transportation been used by the respondents. This can be concluded that public transportation is most prevalent in the study area, which calls for proper education to both the users and the operators.

Table 1. Socio-Economic characteristics of the respondent

	Characteristics	Frequency Percentage	
Gender	Male	118	67.8
	Female	56	32.2
	Total	174	100
Age (years)	Below 18	0	0
	18-29	42	24.1
	30-39	62	35.6

	40-49	40	23.0
	50 and above	30	17.2
	Total	174	100
Marital status	Single	56	32.2
	Married	102	58.6
	Divorced	5	2.9
	Separated	7	4.0
	Widowed	4	2.3
	Total	174	100
Level of Education	No formal education	0	0
	Primary Education	48	27.6
	Secondary Education	50	28.7
	Tertiary Education	76	43.7
	Total	174	100
	Driver	75	43.1
Occupation status	Transport manager	13	7.5
	FRSC officer	42	24.1
	Others	44	25.3
	Total	174	100
Do you own a vehicle	Yes	51	29.3
	No	123	70.7
	Total	174	100
	Once in a week	0	0
How often do you ply roads	Once in a month	0	0
	More than once a week	41	23.6
	Everyday	133	76.4
	Total	174	100
	Motorcycle	18	10.3
What's your major means of transportation	Private car	32	18.4
	Taxi/bus	124	71.3
	Tricycle	0	0
	Others	0	0
	Total	174	100

Source: Author's compilation, 2025

Current Level of Transport Education among Road Operators in Ogbomoso, Oyo State

In an attempt to assess the current level of transport education among road transporters in Ogbomoso, Oyo State, Nigeria. Descriptive statistics such as percentage frequencies was employed. The Figure 1 below showed if the respondents have ever received any formal transport education. The responses showed that 59.8% of them have received a formal transport education while 40.2% have not received any formal transport education.

The types of transport education that the respondents have received as shown in Figure 2 below revealed that driver training constitute the majority. 37.4% of the respondents stated they have undergone driver training while 62.6% have not undergone driver training. Also, only 24.1% of the respondents have been trained on safety while 75.9% have not been trained on safety. In addition, only 8% of the respondents have been trained on logistics management while 92% have not been trained.

The figure 3 showed that the quality of transport education received were adjudged to be majorly average as accounted for by 69% of the respondents. This was followed by good (23%) and poor (5.2%). Only 2.9% of the respondents stated that the quality of training received is good while there was no account for very poor.

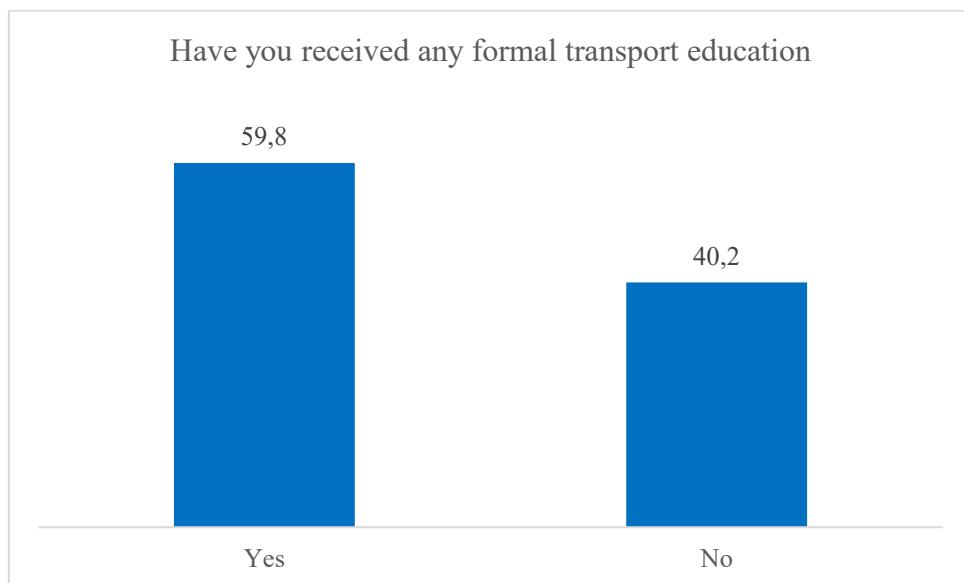


Figure 1. Have you received any formal transport education?

Source: Author's Work, 2025

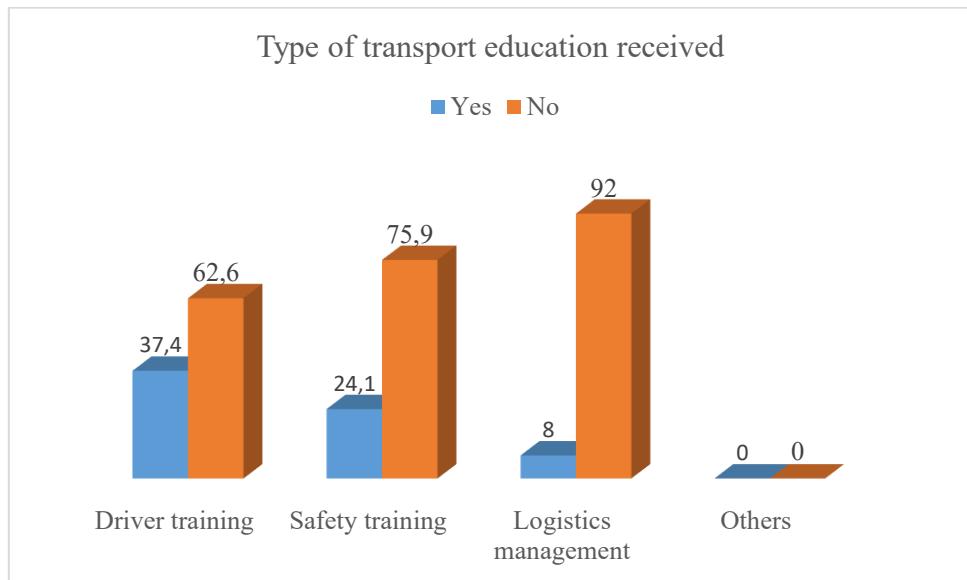


Figure 2. Type of Transport Education received

Source: Author's Work, 2025

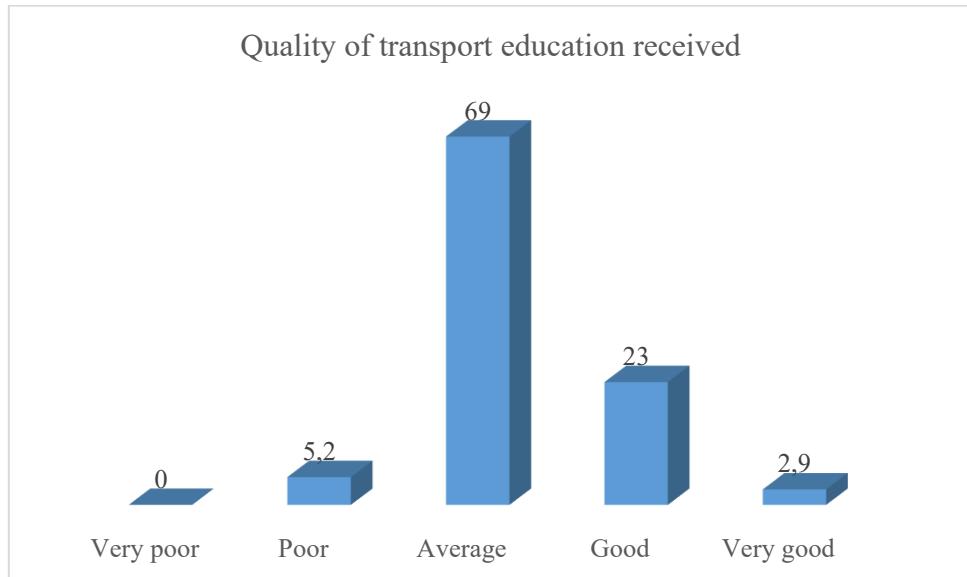


Figure 3. Quality of Transport Education received

Source: Author's Work, 2025

Examine the Relationship between Transport Education and Safety Compliance

The regression model showed in table 2 shows a weak positive relationship between the predictors and the outcome, which indicates a correlation coefficient (R) of 0.248 and coefficient of multiple determination (R^2) of 0.62. This indicates that about 62% of transport education can influence safety compliance of road transport operators in Ogbomoso.

Table 3 shows that driver training with $B = -0.461$, $P = 0.033$, indicates a negative coefficient which means that more driver training is associated with lower safety compliance, this may indicate a problem with how training is being delivered and the level of comprehension and its measured. This can be bedrock for further study which can be evaluated qualitatively.

Also, perception of safety importance with $B = 0.250$ and significant p value of 0.017, indicates a positive association with safety compliance which means individuals who place more importance on safety tend to comply more.

Furthermore, formal transport education, quality of transport education, safety training and logistics management does not significantly influence safety compliance. This implies that these variables are not thoroughly harmonized in relation to the set parameters.

Table 2. Model Summary and Anova

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.248 ^a	.62	.038	.762	
a. Predictors: (Constant), Logistics management, Received any formal transport education, Quality of transport education received, Safety training, Driver training, Perception of safety importance					
Anova^a					
Model		Sum of Squares	df	Mean Square	F
1	Regression	8.512	6	1.418	3.987
	Residual	132.430	167	.794	.003 ^b
	Total	140.942	173		
a. Dependent Variable: Safety compliance					
b. Predictors: (Constant), Logistics management, Received any formal transport education, Quality of transport education received, Safety training, Driver training, Perception of safety importance					

Table 3. Coefficients

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients	B	Std. Error		
(Constant)	6.089	.960		6.338	.000
Have you received any formal transport education	.139	.231		.599	.550
Quality of transport education received	-.080	.129		-.619	.537
1	Driver training	-.461	.214	-.248	2.153 .033
	Safety training	-.335	.222	-.160	1.509 .134
	Logistics management	-.325	.264	-.098	1.232 .221
	Perception of safety importance	.250	.100	.150	2.50 .017

a. Dependent Variable: Safety compliance

Source: Field Survey, 2025

CONCLUSION

Based on the findings, the study concludes that while general transport education alone may not directly influence safety compliance among road operators, some factors play a critical role. Specifically the perception of safety importance has positive significance highlighting the need to foster stronger safety values and attitudes among drivers. The findings are supported by the work of (Gyekye et al., 2007) that there is a strong link between workers perception of safety and actual safety compliance.

Driver training which is significant but have a negative relationship suggests that current training approaches may be ineffective or are poorly implemented. Consequently, the study recommends that efforts should shift towards enhancing the quality and relevance of driver training programs and aligning them closely with real-world safety practices. In addition promoting safety awareness and emphasizing the importance of safety compliance through targeted campaign at motor parks, road side billboards and stakeholders including employers and community. Teachers, should also be actively involved in promoting a safety culture that goes beyond formal instruction.

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