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Socio-Demographic Factors as Determinants of Safety among Driver's in Sagamu Local Government, Nigeria

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Abstract:

This study assessed the perceived influence of socio-demographic factors on driver's safety in Sagamu Local Government Area of Ogun State, Nigeria. A total of 150 drivers were selected as subjects of study using simple random sampling technique. A self-developed scale tagged 'Influence of formal education and experience on driver's safety questionnaire' with a reliability index of 0.73 was used to elicit response from the participants. Three hypotheses were formulated and tested using multiple regression analysis and Pearson's product moment correlation coefficient. The significance was fixed at 0.05 level. Findings reveal significant combined influence of experience, age, education and marital status on drivers' safety ($F_{(4, 143)} = 4.925$, p < .05) amounting to the variance of 9.7%. In addition, age and driving experience had significant relative influence while education and marital status had no significant influence on driver's safety. Furthermore, there were significant relationships between age and drivers' safety and educational qualification and drivers' safety. It was concluded that an investigation of the factors influencing drivers' safety is a worthwhile venture and should be addressed with all sense of urgency, hence it was recommended that underage youths should be prevented from driving while awareness should be created among drivers on the danger of driving without having adequate amount of experience.

Keywords: Socio-demographic factors, drivers' safety, Sagamu local government

1. Introduction

Over the years, there has been an outcry by all and sundry on the alarming rate of accidents on our roads. Traffic wardens, the police, and other safety agencies have equally been concerned with the safety of lives of passengers and drivers on our roads. Despite these concerns, the rate of accident on our roads have continued to increase at an alarming rate in recent times (Olumide and Owoaje, 2016; Ohakwe, Iwueze & Chikezie, 2011; Mbachu, 2012; Arosanyin, 2008). According to the Federal Road Safety Commission (2016), 10,050 people die yearly in road accidents. Analyzing this figure depicts that there are about 27 deaths on our roads daily not counting hundreds of other road users who sustain injuries and permanent disabilities as a result of road accidents. Safety means putting some conditions in order so as to ensure the well-being and preservation of health of individuals by ensuring that the environment is free from hazards and situations that could cause harm be it physical, psychological or material (Agbonkhese, 2013). Osime, Ehikhamenor, Oludiran, Iribhogbe, Ighedosa, and Elusoji (2006) and Eshbaugh, Maly, Moyer and Torkelson (2012) looks at safety as being freedom from situations that could cause loss, damage or harm.

Having being construed to mean absence of risk, injury or loss (Osime, Ehikhamenor, Oludiran, Iribhogbe, Ighedosa, & Elusoji, 2006), and a state devoid of hazards that could cause physical, emotional or psychological harm so as to improve the well-being of people (Agbonkhese, 2013), yet safety does not only mean absence of injuries whether voluntary or involuntary rather driver's safety mean freedom from accidents and other hazards that may occur in the process of driving by the diver (World Health Organization, 2011). When a driver is safe from accident, the passengers boarded in a vehicle also safely reach their destinations. The foregoing therefore show that the safety of passengers solely depends on driver's safety (New Zealand Transport Agency 2013). In order to be safe and also ensure the safety of passengers entrusted to the care of drivers, education is vital (New Zealand Transport Agency Report, 2013). Education brings enlightenment (Enyim, 2019) and will enable a driver understand the road signs, traffic laws and other safety regulations that will assist in limiting accidents. Safety of drivers is of paramount importance as it connotes the safety of passengers as well (Aworemi, Abdul-Azeez & Olabode, 2010). This means that the safety of a driver leads to the safety of his passengers.

For the Drivers to be safe from road accidents, a level of formal education is essential. Colley, Holdkinson, and Malcolm (2003) defined formal education as training that is methodical, controlled, and structured based on prescribed laid down instructions and norms, which has strong curriculum foundations in terms of content, objectives and

methodology. When Drivers receive some education, then they will be able to read and decode road signs and understand traffic rules and regulations. Without formal education, it becomes difficult to make drivers understand ideals, values, skill as well as knowledge intended. Thus, a driver with formal education will acquire some knowledge that will make him different from others as well as being able to decode information received from the environment in an appropriate manner (Okafor, Odeyemi, and Dolapo, 2014). An educated driver will definitely be eager to learn new driving techniques and more safety driving tips than an uneducated one. To buttress this Olumide and Owoaje (2016) found that training given to drivers resulted to increased knowledge on road safety regulations.

Furthermore, driver's experience is another socio-demographic factor that contributes to driver's safety. *Newberg and Newberg (2005)* are of the view that experience means understanding and competence acquired about a situation or condition by being a part of that thing or event. According to them, experience leads to expertise and proficiency with attendant reputations as a professional in that field or area. Hence, experience means proficiency, expertise or grounded knowledge about ways of doing a particular thing. In that line, it is expected that experienced drivers would know everything related to driving and be able to identify and interpret any sign in the dashboard and other parts of the vehicle thus ensuring to an extent, his safety and that of his passengers (Eshbaugh, Maly, Moyer &Torkelson 2012).

In the study of driver's safety, marital status is of utmost important as it could affect the safety of drivers. According to Whitlock, Norton, Clark, Jackson and MacMahon (2004) marital status contributes to emotional stability that could determine or direct a risk-taking behavior. Johnell, Laflamme, Moller and Monarrez-Espino (2014) found that drivers who are divorced are more likely to take drugs like benzodiazepine which has been linked with higher rates of road accidents as compared with their counterparts who are married. Atombo, Wu, Tettehfio and Agbo (2017) have discovered that risk perceptions, and stress are more on the divorced who are noted to be mostly involved in an accident than drivers living with their spouses.

Age may also determine a driver's safety as it is often believed that age brings maturity and stability in life and in decision making. It is imperative that while the younger generation will opt for more risk-taking ventures, the elderly ones will prefer stability and more carefulness and this variable may also draw a distinction on the level of safety assuming that while the younger ones will be less careful on the roads the elderly ones may be more safety conscious. Lyon and Soteropoulos (2020) in their studies found that drivers aged between 18 – 21 years are more distracted and are easily tired while driving while older drivers aged 65 years and above adopt more acceptable driving behaviours

Various studies in Nigeria have looked at certain variable that influence driver's safety. Enyim (2019) studied how social factor could influence safety practices of taxi drivers in Uyo in Akwalbom State. Okafor, Odeyemi, Dolapo, Ilika and Omosun (2014) studied how knowledge gained among commercial bus drivers from a post-license road safety education intervention programme could lead to safety among drivers in Lagos, Nigeria just to mention a few. Despite the above, there are few researches relating to perceived influence of socio-demographic factors on driver's safety in Sagamu Local Government in particular, hence the need for this research.

1.1. Objectives of the Study

Generally, this study intends to examine the extent at which socio-demographic factors will influence drivers' safety in Sagamu Local Government Area of Ogun State, Nigeria. The specific objectives of this study are as follows:

- To determine if there were any significant combined influence of socio-demographic factors (education, experience, age, marital status) on drivers' safety in Sagamu Local Government Area of Ogun State.
- To determine if there was any significant relative influence of socio-demographic factors (education, experience, age, marital status) on drivers' safety in Sagamu Local Government Area of Ogun State.
- To assess if there were any significant bivariate relationships between socio-demographic factors (education, experience, age, marital status) and drivers' safety in Sagamu Local Government Area of Ogun State.

1.2. Hypothesis

- Ho1: There is no significant combined influence of socio-demographic factors on drivers' safety in Sagamu Local Government Area of Ogun State.
- Ho2: There is no significant relative influence of socio-demographic factors on drivers' safety in Sagamu Local Government Area of Ogun State.
- Ho3: There is no significant bivariate relationships between socio-demographic factors and drivers' safety in Sagamu Local Government Area of Ogun State.

2. Methods

2.1. Research Design

This study adopted the descriptive survey research design. It describes the essential information and insight about the association and relationships that exist between the dependent variable and the independent variable.

2.2. Participants

One hundred and fifty (150) drivers employed in formal organizations in Sagamu, Ogun State, Nigeria were randomly selected.

2.3. Instrumentation

The research instrument that was used to elicit response from the participants was a self-developed questionnaire tagged 'Influence of socio-demographic factors on driver's safety questionnaire'. This scale has three sections, A, B and C. Section A captured basic demographic information like age, marital status, name of establishment and experience. Section B addressed driver's safety while Section C focused on formal education. This questionnaire used the 5-likert point scale of choices such as Strongly agree (SA), Agree (A), Neutral (N), Disagree (D), and strongly disagree (SD). A test-retest method was used to establish the reliability of the instrument which stood at .73.

2.4. Procedure

The researchers administered the questionnaires on the respondents in their places of employment. They were assisted by a Yoruba research assistant who served as an interpreter for the sake of those that could not understand English. This exercise took one week to be completed. All the 150 questionnaires distributed were correctly filed, retrieved and used for the study.

2.5. Method of Data Analysis

Multiple Regression analysis and Correlation Matrix were used to analyze the data generated at the 0.05 level of significance.

3. Results

3.1. Preliminary Analyses

3.1.1. Demographic Distribution

Demographic data result analysis of participants is presented in Table 1.

S/No	Variable	Category	Frequency	Percentage
1.	Age	18-25 years	15	10.1
		26-30 years	18	12.2
		31-35 years	23	15.5
		36-40 years	32	21.6
		41-45 years	30	20.3
		46-50 years	15	10.1
		51 years & above	15	10.1
2.	Marital Status	Single	15	10.1
		Married	97	65.5
		Separated	21	14.2
		Widowed	15	10.2
3.	Driving Experience	0-10 years	27	18.2
		11-20 years	50	33.8
		21-30 years	47	31.8
		31 years & above	24	16.2
4.	Educational Qualification	FSLC	12	8.1
		SSCE	41	27.7
		NCE/OND	51	34.5
		HND/Degree	32	21.6
		Master's degree	9	6.1
		PhD	3	2.0

Table 1: Demographic Data of Participants Source: Field Survey, 2020

Results in Table 1 showed that majority of the subjects (22%) were 36 – 40 years old, followed by those who were41-45 years old (20%), 31-35 years old (16%), 26-30 years old (12%), 18 – 25 years old (10%), 46 – 50 years old (10%), and 51 years old and above (10%). A majority of the participants (66%) were married; separated (14%), widowed (10%), and single (10%). The greatest proportion of the participants (34%) had between 11-20 years of driving experience; those who had 21-30 years (32%), 0-10 years (18%), and 31 years & above (16%). The majority of the participants (35%) had NCE/OND educational qualification, followed by those who had SSCE (28%), HND/Degree (22%), FSLC (8%), Master's degree (6%), and PhD (2%).

3.2. Test of Hypothesis

3.2.1. Hypothesis One

• Ho1: There is no significant combined influence of socio-demographic factors on drivers' safety in Sagamu Local Government Area of Ogun State.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	405.982	4	101.495	4.925	.001 ^b
	Residual	2946.849	143	20.607		
	Total	3352.831	147			

Table 2: Model Summary for the Multiple Regression Analysis for the Combined

R = .348, *R* Square = .121, *Adjusted R* Square = .097, *Std. Error* = 4.53953

a. Dependent Variable: Drivers' Safety

b. Predictors: (Constant), Educational Qualification, Age, Driving Experience, Marital Status

Table 2 showed significant results ($F_{(4, 143)} = 4.925$, p < .05). The null hypothesis which stated that there is no significant combined influence of socio-demographic factors (age, marital status, driving experience, and education) on drivers' safety in Sagamu Local Government Area of Ogun State was not accepted, while the alternative hypothesis was upheld. It was subsequently concluded that there is a significant combined influence of socio-demographic factors on drivers' safety in Sagamu Local Government Area of Ogun State. Table 2 further revealed that 9.7% of the variance in drivers' safety was accounted for by the socio-demographic factors (Adj. $R^2 = .097$).

<u>3.2.2. Hypothesis Two</u>

• Ho2: There was no significant relative influence of socio-demographic factors on drivers' safety in Sagamu Local Government Area of Ogun State.

Model		Unstandardized Coefficients		Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		
1	(Constant)	21.011	2.054		10.232	.000
	Age	714	.222	263	-3.218	.002
	Marital Status	181	.445	033	406	.685
	Driving Experience	-1.250	.401	254	-3.119	.002
	Educational Qualification	.609	.342	.143	1.782	.077
a Dependent Variable: Drivers' Safety						

Table 3: Model Summary for the Multiple Regression Analysis for the Relative Influence of Socio-Demographic Factors on Drivers' Safety

Table 3 revealed both significant and non-significant results. Age and driving experience had a significant relative influence on drivers' safety, while marital status and educational qualification had no significant relative influence on drivers' safety. Age was the strongest predictor of drivers' safety (Beta = -263, t = 3.218, *p*<.05). This was followed by driving experience (Beta = -254, t = 3.119, p<.05). Educational qualification (Beta = .143, t = 1.782, *p*>.05) and marital status (Beta = -0.033, t = .406, *p*>.05) were non-significant relative predictors of drivers' safety in Sagamu Local Government Area of Ogun State. It is therefore concluded that there is a significant relative influence of age and driving experience, but a non-significant relative influence of educational qualification and marital status to the total variance in drivers' safety in Sagamu Local Government Area of Ogun State.

3.2.3. Hypothesis Three

• Ho3: There was no significant bivariate relationships between socio-demographic factors and drivers' safety in Sagamu Local Government Area of Ogun State.

	Age	Marital Status	Driving Experience	Educational Qualification	Drivers' Safety
Age	1.000	251*	.169*	028	.216*
Marital Status		1.000	.157	071	.157
Driving Experience			1.000	.174*	.190*
Educational				1.000	.108
Qualification					
Drivers' Safety					1.000

Table 4: Correlation Matrix for the Relationships between Socio-Demographic

Factors and Drivers' Safety

*. Correlation is Significant at the 0.05 Level (2-Tailed)

Influence of Socio-Demographic Factors on Drivers' Safety

Results in Table 4 were both significant and non-significant. Specifically, there were significant positive relationships between age and driving experience (r = .169, p < .05), age and drivers' safety (r = .216, p < .05), driving experience and educational qualification (r = .174, p < .05), and driving experience and drivers' safety (r = .216, p < .05); and there was a significant negative relationship between age and marital status (r = .251, p < .05). However, there were no significant relationships between age and educational qualification (r = .028, p > .05), marital status and driving experience (r = .157, p > .05), marital status and educational qualification (r = .071, p > .05), marital status and drivers' safety (r = .157, p > .05), and educational qualification and drivers' safety (r = .108, p > .05).

3.3. Discussion of Findings

The researchers assessed the influence of socio-demographic factors of age, marital status, educational qualification, and driving experience on drivers' safety in Sagamu Local Government Area of Ogun State. Three hypotheses were formulated and tested using multiple regression analysis and Pearson's product moment correlation coefficient statistics at the 0.05 level of significance. The findings were discussed hypothesis by hypothesis below.

The first null hypothesis stated that there was no significant combined influence of socio-demographic factors on drivers' safety in Sagamu Local Government Area of Ogun State. The results of the analysis revealed a significant combined influence of socio-demographic factors on drivers' safety. Specifically, age, marital status, educational qualification, and driving experience all combined to significantly influence drivers' safety. This finding was in agreement with New Zealand Transport Agency (2013) which affirmed that education of drivers is vital to drivers' safety. An educated driver was able to receive important information regarding driving and increase his or her driving knowledge further. An educated driver has an uncanny trait to look and learn more about new driving techniques. All these contribute to the safety of the driver. These findings also corroborated Newberg and Newberg (2005) who averred that driving experience, means expertise and knowledge of driving or competence acquired through constant engagement in a particular thing insisting that when someone has a vast knowledge in a particular thing, the person can be conveniently called an expert in that thing. Other things being equal, an experienced driver may not likely have a serious motor accident. In the same manner, Enyim (2019) who investigated the influence of social variables on road-safety practices among taxi drivers in Uyo metropolis of Akwalbom State found that the age, educational qualifications, and marital status among others have some influence on road safety practices among drivers.

The second hypothesis investigated if there is significant relative influence of socio-demographic factors on drivers' safety in Sagamu Local Government Area of Ogun State. This hypothesis analyzed and found to be partly untenable and partly tenable. Specifically, age and driving experience had a significant relative influence on drivers' safety, while marital status and educational qualification had no significant relative influence on drivers' safety. This finding corroborated Okafor *et al.* (2013) who found that lack of all the necessary knowledge and driving experience on the part of drivers could threaten drivers' safety and lead to high rate of accidents on our roads. Also supported by this finding was Olumide and Owoaje (2016) who, in their study, stressed the importance of drivers engaged in formal sectors to acquire more understanding of road safety rules so as to protect their lives and that of their passengers.

The third null hypothesis stated that there are no significant bivariate relationships between socio-demographic factors and drivers' safety in Sagamu Local Government Area of Ogun State. The results from the test of this hypothesis were both significant and non-significant.

There were significant positive relationships between age and driving experience, age and drivers' safety, driving experience and educational qualification, and driving experience and drivers' safety; and there was a significant negative relationship between age and marital status. However, there were no significant relationships between age and educational qualification, marital status and driving experience, marital status and educational qualification, marital status and drivers' safety. These findings partly agreed with Enyim (2019) who in his studies found significant relationships among the variables, namely, age, educational qualifications, marital status, income level, family size, beliefs about causes of road traffic accidents, and road-safety practices among taxi drivers. This finding was also in line with that of Nwakpa (2011) who investigated demographic factors that could contribute to motor vehicle accidents among commercial drivers in Enugu metropolis and concluded that age and driving experience were two important demographic factors that are negatively related to incidents of motor vehicle accidents. The implication of this was that a positive relationship exists between age and drivers' safety and also between driving experience and drivers' safety as it was also found in this study. This finding also corroborated that of Olumide and Owoaje (2016) whose study showed that good knowledge of road safety by drivers employed in the formal sector is associated with drivers' safety. The implication of this is that good education is linked with drivers' safety.

The finding from the test of this hypothesis however contradicted Olufemi (2014) who examined marital status, religiosity, and socio-economic status as predictors of safe driving among selected adults in South-West Nigeria and found a significant association between marital status and safe driving among the participants. More specifically, they found that married people tend to score higher on safe driving than unmarried ones, implying a strong link between marital status and drivers' safety.

4. Conclusion and Recommendation

Drivers' safety is a very important variable for all categories of people because absence of drivers' safety leads to motor accidents, injury, damages and loss of lives. An investigation of the factors influencing drivers' safety is therefore a worthwhile venture. This study has clearly shown a significant combined contribution of socio-demographic factors to drivers' safety, significant relative influence of the socio-demographic factors of age and driving experience on drivers'

safety, non-significant relative influence of the socio-demographic factors of marital status and educational qualification on drivers' safety, significant positive relationships between age and driving experience, age and drivers' safety, driving experience and educational qualification, and driving experience and drivers' safety, significant negative relationship between age and marital status, and no significant relationships between age and educational qualification, marital status and driving experience, marital status and educational qualification, marital status and drivers' safety, and educational qualification and drivers' safety in Sagamu Local Government Area of Ogun State.

From the outcome of the analysis, the researchers recommend that Government Agencies should apprehend and prosecute underage youths who are found driving on the roads while awareness should be created among drivers on the danger of driving especially on the express and busy roads without having adequate amount of experience. They should not venture into certain roads without the experience of navigating through these roads while it is suggested that further investigation should be carried out by other authors on individual and psychological factors influencing drivers' safety in Sagamu Local Government Area, Ogun State, Nigeria.

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