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Age, Experience and Risk Perception of Commercial Bus Drivers in Osun State

Zaccheaus O. Olonade[a],*

[a]Ph.D., Department of Human Resource Development, Osun State University, Osogbo, Nigeria.
*Corresponding author.

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Abstract
The study examined the influence of commercial bus drivers' age, and experience on their risk perception on the road. This was with a view to assessing the roles played by the variables on the driving behaviour of commercial bus drivers. Primary data were used in the study. It involved systematic observation and the use of questionnaire. Participatory observation was conducted, and questionnaire administered on commercial bus drivers travelling in and out of Ile-Ife, Ilesa, and Osogbo. A multi-stage sampling procedure was used. A total of 92 drivers were used for the study. The data collected were analyzed using descriptive and inferential statistics. Results showed that the commercial bus drivers' age have no significant influence on their risk perception. The influence for driving experience of commercial bus drivers on their risk perception was found to be statistically insignificant too. The study concluded that commercial bus drivers, irrespective of their age or driving experience, need to periodically attend training programmes, as a matter of duty, to improve their risk perception and by extension their driving behaviour.

Key words: Age; Experience; Risk perception

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INTRODUCTION
A basic ability to drive a vehicle is certainly necessary for a person to drive and avoid accidents. This ability is acquired through knowledge, skill development, and experience. Vast majority of traffic accidents are a direct result of drivers' error. Some drivers' errors are unintentional and likely unavoidable, but some other errors result from deliberate or negligent risk-taking. While drivers are generally aware of risks and the likelihood of crash involvement, they are prone to overestimate their own driving skill. Many drivers have the misconception that they are less likely than average to be involved in an accident. This is a dangerous perception because this over assumption can lead to dangerous driving tendencies. The riskiest driving behaviour identified by road traffic law enforcement agents include violation of speed limits on the highways, and driver's lack of concentration while driving. In order to influence the way drivers perceive risks or act on them, it is important to know what their perceived risk are and how accurately such risks are perceived particularly when compared to actual risk?

1. LITERATURE REVIEW
Studies have shown that younger and elderly drivers are more prone to accidents than those in between these age groups. According to Ulleberg and Rundmo (2004), younger drivers are more prone to accidents not only because of inexperience and inability to accurately predict risk but also because they are more willing to accept risk. They also submitted that young people are more of a danger because of skewed risk perception rather than a lack of skill. They also submitted that very young drivers tend to make errors based on inexperience with handling of vehicles. Doherty, Andrey and McGregor (1998), found

that the risk of a crash among 16-19 years old drivers was higher than that among drivers aged 20-24 years and 25-59 years. Other studies however concluded that risk taking is fairly evenly represented across most age groups. They submitted that while male drivers under the age of 25 are more likely to deliberately take risks, older drivers may engage in certain risky behaviours (eating, talking on cell phone, and so on) because they have an inflated sense of their own ability to multi-task while driving.

Jonah (1986); Finn and Bragg (1986); Gebers, Romanowics and McKenzie (1993); MacDonald (1994); Regan, Triggs and Wallace (1999); Regan, Triggs and Godhey (2000); and Williams (2000) believed that several factors, not necessarily independent, are believed to contribute to the elevated accident risk among young drivers. These include lack of driving experience, inattentiveness to the driving task due to distractions, greater risk taking propensity, and undeveloped hazard perception ability. Much evidence points towards increase risk taking among young drivers as a major contributor to their high crash risk. Speed violations are the highest among drivers under 25 years and decrease with age (Gebers et al., 1993). However young drivers take greater risks by driving faster than older drivers. In addition, the young drivers may travel with shorter headway; accept shorter gaps in traffic when pulling out from an intersection, and run yellow traffic light more often (Jonah, 1986).

Hazard perception ability is another factor that has received much attention and is generally linked with the young novice driver's lack of experience. Young drivers appear to be less likely to direct and respond to hazardous situation as they develop, such as Finn and Bragg (1986); Quimby and Watts (1981). Quimby and Watts (1981), for example, revealed that drivers under 25 years took longer time to detect potential hazards in a driving simulator task than drivers aged 25-54 years. The young drivers, however, had the fastest simple reaction time and choice reaction time. Quimby and Watts (1981) concluded that the young drivers' slower perception of hazards was the result of their failure to recognise the situation as hazardous. This may further elevate their propensity to take risk.

Research also indicates that while drivers irrespective of their age or experience are generally aware of risks and the likelihood of crash involvement, they are prone to overestimating their own driving skills. Deery (1999), submitted that many drivers have the misperception that they are less likely than average to be involved in an accident. This is a dangerous perception because this arrogance can lead to dangerous driving tendencies. While young drivers are more prone to this tendency, studies show no demographic to be exempt from its effects.

Risk compensation, which refers to the tendency of drivers to exhibit more risky behaviour than they otherwise would in response to safety-oriented measures, also explains the risk taking behaviour of drivers. Examples of risk compensation include driver distraction when driving on familiar roads, following too closely or speeding in vehicles equipped with anti-lock brakes, and even in seatbelt legislation. Blackman (2004) suggests that people adopt an acceptable risk level, or "target risk" that they try to maintain. He argued that during dangerous driving situations, they will be more attentive and take less risk, to maintain this target risk level. During long straight familiar drives, or with safety-related technology, drivers are prone to take more risk to raise their perceived risk to their target. He further suggested that the "target risk" paradigm cannot be escaped, so a possible way to decrease traffic violations is to lower the target risk that drivers wish to maintain.

From the previous studies reviewed above, it is clear that drivers' age and driving experience influence their risk perception which in turn affects their driving behaviour in some ways, which have implications for the safety of road users generally. A question which remains to be addressed is: is the influence of these variables (that is driver's age and experience), significant enough to determine the safety or otherwise of the road users?

2. HYPOTHESES

Based on the above, the study was set to test the following hypotheses:

(a) The age of commercial bus drivers significantly influences their risk perception and by extension their driving behaviour.

(b) Driving experience has significant influence on the risk perception of commercial bus drivers on the road.

3. METHODS

The study, which adopts survey design, used purposefully designed questionnaire to explore information from 92 drivers of between 15 and 65 years of age from six motor parks, (2 each in three cities of Ile-Ife, Osogbo, and Ilesa); all in Osun state of Nigeria. The instrument was validated using face validity as well as content validity with experts in the area of study. The instrument has a moderately high test-retest reliability of 0.74. Drivers' age and driving experience serve as independent variables while risk perception was the dependent variable. A $3 \times 3 \times 2$ factorial design was used to analyse the variables as follows; 3 (age = 15-25, 26-55, 56 and above) $\times 3$ (years of experience = 0-2, 3-7, 8 and above) $\times 2$ (Risk Perception = low, high).

Test instruments for the study were administered personally to the drivers at the Motor-Parks. The instruments were administered after rapport had been built with the union leadership in the various parks. The

instrument was used as interview guide to the illiterate drivers. The data was subjected to the one-way analysis of variance (ANOVA), computed by means of the Statistical Package for Social Science (SPSS).

4. RESULTS

For the purpose of the study, commercial bus drivers were categorized into three; 15-25 years old, which represents young drivers; 26-55 years old, which represents experienced drivers, and 56 years and above which represent elderly drivers with high experience. In all, 92 drivers responded to the questionnaire. 3 out of them were young drivers within the age range of 15-25 years representing 3.3%. 84 of them representing 91.3% fell between 26-55 years range and the rest 5 drivers representing 5.4% were old drivers of 56 years and above. The result of the analysis was used to test the hypotheses postulated to guide the study.

Hypothesis 1: the age of commercial bus drivers significantly influence their risk perception and by extension their driving behaviour. The hypothesis was tested by means of the Analysis of Variance (one-way ANOVA). The results of the analysis are presented in Table 1.

Table 1
The Analysis of Variance of Drivers' Age on Their Risk Perception on the Road

Source	Type III sum of squares	*df*	Mean Square	*F*	Sig.
Corrected model	1.500	5	.300	1.088	.373
Intercept	52.919	1	52.919	191.888	.000
Age	.668	2	.334	1.211	.303
Error	23.717	66	.276		
Total	332.000	92			
Corrected total	25.217	91			

*Note.*a. *R* Squared = .059 (adjusted *R* squared = .005)

The results of the one-way ANOVA in Table 1 shows that there is no statistical significant main influence of the age of commercial bus drivers on their risk perception on the road [$F(1, 91) = 1.211$, $P > .05$]. This result does not support the hypothesis, it is therefore rejected. The alternate hypothesis that states that the age of drivers has no significant influence on their risk perception on the road is accepted. This finding proposes that the age of commercial bus drivers has little or nothing to do with their risk perception on the road.

Hypothesis 2: Driving experience has significant influence on the risk perception of commercial bus drivers on the road. The hypothesis was tested by means of the Analysis of Variance (one-way ANOVA). The results of the analysis are presented in Table 2.

Table 2
The Analysis of Variance of Drivers' Experience on Their Risk Perception on the Road

Source	Type III sum of squares	*df*	Mean square	*F*	Sig.
Corrected model	1.500	5	.300	1.088	.373
Intercept	52.919	1	52.919	191.888	.000
Experience	.546	2	.273	.990	.376
Error	23.717	86	.276		
Total	332.000	92			
Corrected Total	25.217	91			

Note. a. *R* Squared = .059 (Adjusted *R* Squared = .005)

The results of the one-way ANOVA in Table 2 shows that there is no statistical significant main influence of the experience of commercial bus drivers on their risk perception on the road [$F(1,91) = 0.990$, $P > .05$]. This result does not support the hypothesis, it is therefore rejected. The alternate hypothesis that states that the drivers experience has no significant influence on their risk perception on the road is accepted. This finding proposes that the experience of commercial bus drivers has little or nothing to do with their risk perception on the road.

DISCUSSION

The finding of the first hypothesis revealed that the age of commercial bus drivers does not significantly influence their risk perception on the road. Similarly, the finding of the second hypothesis also revealed that the experience of commercial bus drivers does not have significant influence on their risk perception on the road. These findings is in agreement with the earlier submission of Wilde (1982), and Wilde and Murdock (1982), that drivers have a more or less constant idea of the level of risk which they are prepared to accept on the roads, and that they will alter their driving as circumstances change in such a way as to maintain this level of risk. The findings also agree with the finding of Doherty et al. (1998), which submitted that the fatal accident risk of 20-24 year-old drivers and 25-59 year-old drivers was effectively no different in the presence of passengers than in the absence of passengers. However, this findings stand in contrast to the findings of Harrinton and McBride (1970), and Reason, Manstead, Stradling, Baxter, and Campbell (1990), which found that younger drivers were found to be particularly likely to commit violations like exceeding speed limit and other risky behaviours.

It may be argued that the insignificant nature of driver's age may be due to the fact that while young drivers may take greater risk than older drivers, the older

drivers on the other hand may be unable to accurate in their judgement of events on the road. For instance, while young drivers may be more involved in tailgating, older drivers may fail to overtake when necessary, due to wrong judgement of the other vehicles. Both driving behaviour are classified risky by the traffic laws. Since there is a strong correlation between drivers' age and their work experience, whatever reason inferred for age as a variable, will likely be applicable to work experience.

CONCLUSION

The findings of the study found out that both age and driving experience of commercial bus drivers do not have significant influence on their risk perception on the road. This implies that risk perception of commercial bus drivers is as a result of other variables. It is then suggested that other internal and external variables should be investigated to determine their level of influence on the dependent variable.

Furthermore, since both the young and old; experienced and inexperienced drivers have a measure of risk perception which in turn affects their driving behaviour and road safety in general, the study suggest that trainings in form of seminars, workshops, and so on, need to be organised by the drivers unions and government agencies in charge of road transportation in general foe all age groups of commercial bus drivers.

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