

**PSYCHO-SOCIAL FACTORS AS PREDICTORS AND THE MEDIATORY
ROLE OF RISK-TAKING PROPENSITY ON PRONENESS TO DISTRACTED
DRIVING BEHAVIOUR AMONG YOUNG DRIVERS IN IBADAN**

BY

Ademola Samson DAIRO

MATRIC NO: 101050

BSc. Psychology (Ibadan), M.Sc. Industrial and Organizational Psychology (Ibadan),
M.Sc. Terrorism, Security and Policing (UK).

A Thesis in the Department of Psychology,
Submitted to the Faculty of the Social Sciences
in partial fulfilment of the requirements for the Degree of

DOCTOR OF PHILOSOPHY

of the

UNIVERSITY OF IBADAN

July, 2023

Certification

I certify that this work was carried out by Mr. A.S. Dairo in the Department of
Psychology, University of Ibadan

.....
Supervisor

S. K. Balogun

B.Sc., M.Sc., Ph.D. (Ibadan)

Professor, Department of Psychology,

University of Ibadan, Nigeria

Dedication

To the Gracious God and my ever-loving parents: Late Mr Samuel Adeyi Dairo and Mrs Rachael Aduke Dairo; my darling wife Mrs Adebimpe Olukemi Dairo and our precious Children- Aduragbemi, Aduratunmise, Aduraponmile, Adurapemi and Adurasemilogo.

Acknowledgements

I thank the Almighty Father, Son and Holy Spirit for the released grace, strength and wisdom utilized for the completion of this research. I hereby, humbly return all the glory and honour to the Gracious God and forget not all of His benefits during the course of writing this research.

No matter how daunting research looks, a supervisor who is reachable and open-minded will certainly guide his student towards contributing meaningfully to the existing knowledge in his research interest. All through my research endeavour, Professor Balogun religiously adheres to our sacrosanct Tuesday- meetings. Prof. Balogun is an indefatigable academic warrior that not only empowers his students to conquer their academic challenges but also passionately defends them. He is known to give vision to his visionless students and direction to the academic wanderers. I remember when I was once lost in the wilderness of research. The more I searched, the less I saw. Then, as a Route Commander in my place of work, I was without any direction concerning my research focus. After my first presentation to the group of students being supervised by Prof. Balogun, the battle of my research blindness was exposed and destroyed. He came to my rescue and gave new me hope to build on my research skills.

From the depth of my heart, I appreciate how Prof. Balogun constructively transformed my 'raw' research skills to this enviable state. He is a great guide for me: teaching me how to work hard, multi-task and shape my academic career. His guidance kept me on the right path towards accomplishing my goal. He made me know what truly is Personality and Social Psychology. His contribution is ineradicable in my mind. Thank you for the success recorded so far on my PhD thesis due to your fatherly push. All the supports and motivation received from Prof. Balogun are beyond being my supervisor, they mean hearty things to me. To say thank you is not good enough. Like I have a biological father and a spiritual father, I am now proud to call you my 'academic father'. You shall continually be fruitful and victorious in life and ministry. You will continually be blessed beyond your expectations in the mighty of Jesus Christ.

The Psychology Department, University of Ibadan, my primary constituency over two decades, my citadel of learning, I cannot but extend my appreciation to my lecturers from whom the fountain of knowledge was tapped from my undergraduate to this level. Worthy of mention is the nurturing, support, and encouragement received from Prof. A.O. Adejumo (H.O.D.), Prof P.O. Olapegba (Former Dean of the Faculty) Prof. S.K. Balogun (former H.O.D), Prof. Bola Udegbe, Prof. B.O. Ehigie, Prof. A.M. Sunmola., Prof. Catherine Chovwen (Former Dean of the Faculty), Prof. Grace Adejuwon, Prof. D.E. Okurame, Prof. Alarape, A.I., Prof. Olley, B.O., Prof. Shenge, N.A., Prof. Okhakume, A.S., Dr. W. Ijide, Dr Moji Ajayi, Dr Abel Obosi, Dr F. Famakinde and Mr R. Adu. My gratitude also goes to the non-teaching staff (present and past) of the department: Mrs Jolayemi, Mrs Adenike, Mrs Ajakaye and Mr James may destiny helpers not be far from you and your loved ones and you shall all flourish beyond your expectations in Jesus' name.

Where there is a will, there is a way my invaluable thanks go to Dr Boboye Olayemi Oyeyemi,, mni, NPoM, and MFR, Retired Corps Marshal of Federal Road Safety Corps- whom the Lord used to create the path for my educational advancements as a serving officer of the Corps. So grateful to you my unique boss and mentor for being a strong pillar behind me. Without the approval for further studies, this feat would have been impossible. May the good seeds you have sown into my life becomes a great fruit to you and that of generation yet unborn in Jesus' name. To my commanding officers (present and past) who are highly instrumental in developing my skills as editor-in-chief of FRSC publications-Voice of Safety and Safe Road Magazine where this research focus was discovered: Deputy Corps Marshal- DCM Garba (rtd), DCM Olaniran (rtd), DCM Ogagaghene (rtd) DCM, Akpabio (rtd), Assistant Corps Marshal- ACM Fadogba (rtd), ACM Aipoh PhD (rtd), ACM Agwu, ACM Omeje and ACM Alao (rtd). To Corps Commander Uche Chukwurah fsi – Former Oyo State Sector commander, Corps Commander Ifeoluwa Morakinyo- Oyo State Sector Head of Operations and Deputy Corps Commander -DCC Kolawole Akinsinde and DCC Jerry Undelikwo thank you for creating the enabling environment for the completion of this work. Also, to my other colleagues within the Corps and especially the staff of FRSC Driver's Licence Centres at Onireke, Agodi, and Iwo Road (present and past) where the pilot study and administration

of the questionnaires for the main study took place, I am sincerely grateful. A project of this magnitude requires financial backup that I enjoyed and must never be taken for granted.

My unquantifiable appreciation goes to my darling wife, Mrs Adebimpe Olukemi Dairo for all her support and encouragement during the course of this academic pursuit. We both made it to this stage and thank you for playing your active role that activated this new level. To our lovely children: Aduragbemi, Aduratunmise, Aduraponmile, Adurapemi and Adurasemilogo, who now have a new challenge to surpass their daddy's academic achievements, your cooperation and understanding are not unnoticed. Many times, you walked into my study room to drop your written notes in order not to disturb my research work, I appreciate your sacrifices. Also, to all members of my extended family, in-laws, friends and colleagues, I need to say a big thank you for the concern shown towards the work. Also, I greatly appreciate the moral support of my mother Mrs Rachael Aduke Dairo and Pastor (Dr.) Mrs E.M. Oladunni would never stop encouraging me to be more focused on my academic goal.

Indeed, I'm indebted to my spiritual father, Prophet Gabriel Adetayo Adewunmi and Prophetess Oluremilekun Olayomi- PhD for their untiring prayers and guidance. To benefactors: Mr Joseph Oluwole Awotuyi, who made picking of PhD registration form possible and Mr Abidemi Olugbenga Sonoiki, many thanks for providing the needed water for my fish to swim, survive and successfully attained this academic height. Not forgetting Mrs Vikon Kunuji Soroh and Mrs Adedamola Ibukun, I appreciate your supportive role. Thank you and God bless you more and more especially, Prof. Sunday Babalola for your academic guidance into Personality and Social Psychology. Also, Prof Bola Udegbe whose motherly advice of at least two hours daily on my research at the outset of this programme when she was on sabbatical leave at Nasarawa State University, Keffi has become my guiding principle. Also, Prof Grace Adejuwon for always showing motherly and academic concerns about the progress of my work. In addition, the support and guidance of Prof. Peter Olapegba and Prof A.O. Adejumo (H.O.D.) in the course of writing this thesis is of inestimable value. I am most grateful to Mr Timilehin Fashola and Dr Femi Famakinde for showing unrelenting efforts in ensuring that the statistical aspect of the thesis is sound and appropriate. My special thanks also go to Mr Ajayi and Mr

Jesufemi-Post Graduate Computer Section who are ever ready to assist in my registration processes, I appreciate you.

To all disciples of Glorious Hour of Prayer and Evangelistic Ministry Inc. and members of Ore- Ofe C&S Church, Ibadan thank you for all your prayers and concern, God will reward your labour of love. To all the supervisees of Prof. S.K. Balogun (at Post Graduate Levels): Dr Thomas Attah, Dr Tijani Bunmi, Bola Lawal, Sola Ibrahim, Timothy Ijiola, Haruna Success, Lydia Ibrahim, Lilian Azaka and Adedayo Adegoke your priceless contributions are highly appreciated. To my research participants: pilot and main studies, this research is incomplete without your modest contributions. Thank you. To all victims of distracted drivers, you are much loved.

ABSTRACT

Proneness to Distracted Driving Behaviour (PDDB), the tendency for a driver to voluntarily or involuntarily be distracted, is assuming an alarming dimension. The most serious form of distracted driving is phone-related distractions. Hence, young drivers (18-25 years) are particularly more prone to distraction-related road traffic crashes. Although the mechanisms associated with PDDB among young drivers have been considerably addressed through interventions, this study investigated the psycho-social predictors (locus of control, religiosity and personality traits - extraversion, conscientiousness, agreeableness, neuroticism and openness to experience) and the mediatory role of risk-taking on PDDB among young drivers in Ibadan.

Attribution, Planned Behaviour and Deterrence theories guided the study, while an ex-post facto research design was adopted. Having granted the five available Drivers' Licence Centres (DLCs) in Ibadan equal chance, two centres were selected using a simple random sampling technique. Data were generated from young drivers in Onireke and Oyo State Secretariat DLCs. The purposive sampling technique was utilized in selecting 420 young drivers from those centres. A structured questionnaire containing socio-economic variables, Susceptibility to Driver Distraction Questionnaire ($\alpha=0.85$), Duke University Religion Index- ($\alpha=0.68$), Traffic Locus of Control ($\alpha=0.84$), Risk-Taking ($\alpha=0.90$) and B-F10 personality ($\alpha=0.65$) scales was used. Data were analysed using Pearson's Product-Moment Correlation, Multiple regression and Test of Mediation with Structural Equation Modelling at 0.05 level of significance.

The participants' age was 22.6 years \pm 2.1. The psycho-social factors jointly predicted PDDB among young drivers ($R^2 = .04$; $F = (5,414) = 2.13$; $P < .05$). Further, the path analysis was used to assess the psycho-social factors that predicted PDDB via multiple causal pathways. The independent contribution of extraversion on risk-taking ($\beta = .139$, $t = 2.816$, $p < .05$) was significant in Path A. Also, the independent contribution of risk-taking on PDDB ($\beta = .327$, $t = 7.085$, $p < .01$) was significant in Path B. Further, in Path C₁, only religiosity ($\beta = .216$, $t = 3.323$, $p < .01$) was significant on PDDB. Moreover, in Path C₂, religiosity ($\beta = .204$, $t = 3.294$, $p < .01$) and risk-taking ($\beta = .313$, $t = 6.752$, $p < .01$) were significant on PDDB. Though independently, conscientiousness, agreeableness, neuroticism and openness to experience did not predict voluntary PDDB; however, when risk-taking propensity was introduced, extraversion predicted voluntary PDDB. Hence, the psycho-social factors through risk-taking propensity have partial mediatory effects on PDDB. Also, the mediatory role of risk-taking propensity, an intermediate variable, helps explain how extraversion, conscientiousness, external locus of control, and religiosity influence PDDB.

Locus of control and religiosity are strong determinants of proneness to distracted driving behaviour among young drivers in Ibadan. Risk-taking propensity has a mediatory influence on proneness to distracted driving behaviour. Road traffic personnel should take cognizance of these factors in sensitizing young drivers on the dangers of distracted driving, especially using a phone while driving. Various driving schools and faith-based organisations should also make efforts to lay more emphasis on risk reduction among young drivers while driving.

Keywords: Personality trait, Risk-taking, Proneness to distracted driving behaviour, Young drivers in Ibadan

Word count: 474

Table of Contents

Title Page	i
Certification	ii
Dedication	iii
Acknowledgements	iv
Abstract	viii
Table of Contents	ix
List of Tables	xii
List of Figures	xiii

Chapter One: Introduction

1.1	Background to the Study	1
1.2	Statement of Problem	4
1.3	Justification of Study	8
1.4	Objectives of Study	9
1.5	Relevance of Study	9
1.6	Operational Definition of Terms	10

Chapter Two: Literature Review

2.1	Theoretical Framework	13
2.1.1	Attribution Theory	13
2.1.2	Theory of Planned Behaviour	15
2.1.3	Deterrence Theory	16
2.2	Review of Empirical Literature	18
2.2.1	Personality Factors and Distracted Driving	18
2.2.2	Locus of Control	20
2.2.3	The Relationship between Religiosity and Distracted Driving Behaviour	21
2.2.4	Proneness to Distracted Driving - Phone-use	24
2.2.5	Risk-Taking and Proneness to Distracted Driving Behaviour	25
2.2.6	Young Drivers and Distracted Driving Behaviour	26
2.2.7	Distracted Driving On Nigerians Road	30
2.2.8	Peer Pressure and Distracted Driving Behaviour	32
2.2.9	Technology and Distracted Driving Behaviour	35

2.3	The Role of Social Media in Distracted Driving among Teen Drivers	37
2.3.1	The Gender Behind Drivers Distracted Driving Behaviour	39
2.3.2	The Driver’s Age and Inexperience	40
2.3.3	Risk-Taking and Distracted Driving Behaviour	43
2.3.4	Risky Driving Behaviour and Road Traffic Crashes	45
2.3.5	The Impacts of Voluntary and Involuntary Distracted Driving Behaviours of Driving Performance	48
2.3.6	External Distraction: Billboard and Safe Driving	50
2.3.7	Behavioural Economics and Distracted Driving Behaviour	51
2.3.8	Risky Driving Behaviours, Personality Factors, and Young Drivers	51
2.3.9	Multitasking among Workers and Distracted Driving Behaviours	55
2.3.10	External and Internal Distracted Driving Behaviour	60
2.3.11	Driver’s Age Group and Distracted Driving Behaviour	62
2.3.12	Psycho-Social Factors and Proneness to Distracted Driving Behaviour Among Young Drivers	64
2.4	Hypotheses	66
2.5	Conceptual Framework	68
Chapter Three: Methodology		
3.1	Design	70
3.2	Setting	71
3.3	Sampling Procedure	71
3.4	Population	72
3.4.1	Pilot Study	72
3.5	Procedure for Data Collection	73
3.5.1	Main Study	73
3.5.2	Sample Size	74
3.5.3	Sampling Size Calculation Formula	74
3.6	Instrument	75
3.7	Statistical Analyses	78
3.8	Ethical Consideration	78

Chapter Four: Results

4.1: Hypothesis One	83
4.2 Hypothesis Two	88
4.3: Hypothesis Three	94
4.4: Hypothesis Four	96
4.5: Hypothesis Five	98
4.6: Hypothesis Six	107
4.7: Hypothesis seven	112

Chapter Five: Discussion

5.1 Discussion	123
5.1.1 Relationship between psycho-social factors and proneness to distracted driving behaviour among young drivers	123
5.1.2 Relationship between psycho-social factors and risk-taking propensity among young drivers	125
5.1.3 The mediatory role of risk-taking propensity through psycho-social factors as predictors of proneness to distracted driving behaviour	133

Chapter Six: Summary, Conclusion and Recommendations

6.1 Summary	137
6.2 Conclusion	139
6.3 Limitations	139
6.4 Recommendations	140
6.5 Contributions to Knowledge	141
6.6 Suggestion for Further Research Studies	142
References	143
Appendix	172

List of Tables

Table 4.1	Socio-Demographic Distribution of Respondents	80
Table 4.2	Zero Order Correlation	82
Table 4.3	Multiple Regression Analysis (Traits & PDDB.)	84
Table 4.4	Multiple Regression Analysis (Traits & Voluntary)	86
Table 4.5	Multiple Regression Analysis (Traits & Involuntary)	87
Table 4.6	Multiple Regression Analysis (Locus & PDDB)	89
Table 4.7	Multiple Regression Analysis (Locus & Voluntary)	91
Table 4.8	Multiple Regression Analysis (Locus & Involuntary)	92
Table 4.9	Linear Regression Analysis (Religiosity & PDDB)	95
Table 4.10	Linear Regression Influence (Risk-Taking & PDDB)	97
Table 4.11	Stepwise Multiple Regression Analysis (Risk-taking, Psycho-social & Voluntary DDB- Path A&B)	99
Table 4.12	Stepwise Multiple Regression Analysis (Psycho-social & Voluntary DDB- Path C1)	101
Table 4.13	Stepwise Multiple Regression Analysis (Psycho-social & Voluntary DDB- Path C2)	102
Table 4.14	Structural Equation Standardized Direct Effects	105
Table 4.15	Structural Equation Standardized Indirect Effects	106
Table 4.16	Stepwise Multiple Regression Analysis (Psycho-social & Involuntary DDB- Path A&B)	108
Table 4.17	Stepwise Multiple Regression Analysis (Psycho-social & Involuntary DDB-C1)	110
Table 4.18	Stepwise Multiple Regression Analysis (Psycho-social & Involuntary DDB- C2)	111
Table 4.19	Stepwise Multiple Regression Analysis (Mediating Role on PDDB – Path A &B)	113
Table 4.20	Stepwise Multiple Regression Analysis (Mediating Role on PDDB – Path C1)	115
Table 4.21	Stepwise Multiple Regression Analysis (Mediating Role on PDDB – Path C2)	116
Table 4.22	Structural Equation Standardized Direct Effects	120
Table 4.23	Structural Equation Standardized Indirect Effects	121

List of Figures

Figure 2.1:	Conceptual Framework of the Study	68
Figure 4.1:	A Conceptual Model with a mediator in relation Voluntary DDB	104
Figure 4.2:	A Constructed Model with a mediator about PDDB	118

CHAPTER ONE

INTRODUCTION

1.1: Background to the Study

Driving with distraction is a huge mistake that threatens the driver and other road users. The fact that drivers commonly eat, drink, change CDs and chat with passengers tells us that distracted driving is quite an old behaviour. However, phone-related distractions are the most serious form of distracted driving because it tends to make the driver look at a screen, type using his hands, and think about writing, texting and driving (Distracted Driving, 2020). Thus, it is believed that mobile phone is not only changing how we live and work but also the way we drive. As such, the use of phone behind the wheel is a threat to traffic safety, particularly for an inexperienced driver who possesses limited ability to stay focused, have their impulses controlled, and multi-task (McDonald, 2020).

In addition, distracted driving behaviour apart from being deeply rooted, its consequences to road users are very difficult to eradicate (Moore, 2019). It has become so pervasive because a driver may not only be distracted when posting behind the wheel but also when taking that post-worthy photo in motion. Also, activities such as reading Facebook updates behind the wheel, tweeting about traffic conditions, sharing photos on Snapchat while in motion, taking a selfie behind the wheel and posting a sunset photo taken from the driver's seat to Instagram are dangerous trends that virally spread on social networks which are possibly appealing to several young viewers who may also try to imitate such behaviour. One of the several negative impacts of social media on driving is its user's obsession with promoting distracted driving behaviour which is not limited to but includes those that could result in injury or death (Digital, 2016). Specifically, young drivers (18-25 years) are particularly more prone to distraction-related road traffic crashes (Buckley, Chapman,

& Sheehan, 2013). Thus, all these distracting activities may impact the driver's safety as well as others' because driving requires attention, coordination, and split-second decision. Undoubtedly, driving task requires adequate concentration while any other activities like the use of a phone behind the wheel may constitute an attention-divided task that negates the concept of safe driving behaviour. In light of this, the ripple effects of distracted driving behaviour require urgent attention.

Nonetheless, the main threat to safety on the road is attributable to human behaviours in the form of Road Traffic Crashes- RTC (Akinyemi & Onuka, 2012). In addition, distracted driving behaviour may increase the chance of road traffic crashes (Akande & Ajao, 2006). Inadequate attention on the road is risky and a threat to life (BBC News Online, 17, October 2016). Thus, distracted driving allows young drivers the opportunity to interact with friends, relations, workers and neighbours but also comes with a cost.

In addition, imagine these activities taking place during a traffic peak period: a young driver from the lecture room to the hall of residence, fitting a quick bite of snacks as he drives as well as tuning the radio to his favourite radio station. In addition, he wants to be a law-abiding driver as well as be courteous. Then his mobile phone rings, or maybe he gets a notification from an app and decides to pick up the call or glance at the notification. Based on this assumption, he may think he can multi-task behind the wheel and concentrate as well. However, there is no justification for scrolling, swiping, typing, or otherwise using a mobile phone behind the wheel (Winkle, 2020). The distracting activities of young adult drivers are not only limited to looking away from the road but also conversing with other passengers or friends (cognitive distraction) and are receiving increasing attention. Distracted driving behaviour could be described as unsafe driving tasks that do not only have the capacity to divide attention via vision, mind and manual but are also a causative factor a non-desirable driving behaviour.

In this direction, studies suggest that the likelihood that a crash will occur is more when a driver is distracted than when he avoids it; crashes involving the use of a phone behind the wheel reveal drivers are more susceptible to Road Traffic Crashes (RTC) than those who do not (Violanti & Marshall, 1996). It is a herculean task assessing the increased risk of proneness to distracted driving behaviour among young drivers because of the lack of

adequate data concerning it. For instance, in Nigeria, it is only when a crash occurs that a crash investigation will determine whether distracted driving is the cause of such a crash (Safe Road, 2015). As such, distracted driving is growing, it may not only become an increasingly common cause of distracted driving behaviours but also road crashes among young drivers. In this line of thought, the previous study advocates for researchers' attention to those areas that will enhance road users' safety (Balogun, Shenge, & Oladipo, 2012).

Additionally, the knowledge of a young driver's personality factors is not only important in predicting the person's behaviour but also provides a medium for the assessment of his thought pattern and perceptions (Kneavel, 2008). Further to this, there seems to be a significant link between locus of control and distracted driving behaviour (McLaughlin, (2013). Independently, the prediction of road traffic crashes and risky driving behaviours - dangerous driving from distracted driving behaviour is not limited to locus of control but also to other factors (Carpenter, Brijis, Declercqg, Declercqaniel & Wets, 2014).

Also, religiosity, another variable of interest may also be considered in a bid to improve safe driving behaviour while decreasing risky driving tendency (Scarpa & Haden, 2006). Further to this, a high-risk group of adolescents are not only mostly prone to divided attention but also highly susceptible to road traffic crashes (Romer, Lee, McDonald & Winston, 2014). To this end, traffic offenders of distracted driving are to some extent lower in safety motivation than those who embrace safe driving behaviour (Poysti, Rajalin & Summala, 2005). Perhaps, phone users' general risk-taking tendencies should also be considered in relation to proneness to distracted driving behaviour.

Aptly, proneness to distracted driving behaviour is the tendency for a driver to voluntarily or involuntarily be distracted while driving. Although the mechanisms associated with it have been considerably addressed through interventions, this study investigated the psycho-social predictors (locus of control, religiosity and personality traits - extraversion, conscientiousness, agreeableness, neuroticism and openness to experience) and the mediatory role of risk-taking propensity on proneness to distracted driving behaviour among young drivers in Ibadan.

1.2: Statement of Problem

It is believed that divided attention through phones became a challenging issue on Nigerian roads through the introduction of the Global Communication System in 1999. Distracted driving, a human factor, is believed to be a growing problem in the Ibadan metropolis and Nigeria at large. This driving behaviour predisposes every road user not only to road crashes but also to injury and untimely death (Adeola & Gibbons, 2013). Significantly, its ripple effects on road safety may not be accurately estimated, but for sure, it is a threat safety of road users. Divided attention is the most profound negative factor associated with distracted driving behaviour (Drews, Pansupathis & Strayer, 2008). Hence, key findings revealed that distractions behind the wheel negatively affect driving performance in such a way that drivers are exposed to unsafe traffic situations (Boboc, Voinea, Buzdugan, & Antonya, 2022).

One major aspect of distracted driving is the phone with its attendant problems in terms of crashes (Romer, et al. 2014; BBC News Online, 17, October 2016). Not only are young drivers (18-25 years) particularly prone to distraction-related road traffic crashes but also they over-involved in road traffic crashes (Buckley, Chapman, & Sheehan, 2013; Narris, Cavallo, & Harrison, 2014; Feng, Marulanda, & Donmez, 2014). While young individuals have the knowledge of the inherent risks involved in distracted driving behaviour, they still cannot stop it (Fraschetti, Cordellieri, Lausi, Mari, PaoBurraurra, QuaBurra, Baldi, Pizzo, & Giannini, 2021). Perhaps, young drivers are believed to be obsessed with their phones behind the wheel and tend to be sturdy. Consequently, being unfocused for just a few seconds while setting a navigator may distract their attention from the roadway.

Having adequate knowledge of drivers' proneness to distracted driving behaviour will help to create a measure to reduce distraction (Feng et al., 2014). Distraction engagement could be voluntary i.e., willingness to engage in distractions (Sheridan, 2004). It is believed that a driver has the prerogative to decide whether and when to use his phone.

Alternatively, distracted driving could be an involuntary activity (Horberry & Edquist, 2008). Hypothetically, a ringing phone may make a driver divert his attention away from the road. In the sense that relevant stimuli attract attention automatically (Stead, Tagg,

MacKintosh & Eadie, 2004). Hence, a driver may lose concentration through a ringing phone even though he does not respond to it. In addition, it was reported that there exists a relationship between proneness to involuntary distraction and driving errors (Feng et al., 2014). Undoubtedly, differentiating voluntary distraction from involuntary distraction may enhance the knowledge of distracted driving behaviour among young road users.

Aptly, personality psychology and driving behaviour are intertwined (Galovski & Blanchard, 2004). In this regard, a previous study on personality traits explained the strength of the relationships between risky driving behaviour and road crashes (Ferreira, Luis Martínez and Guisande, 2009). Furthermore, psycho-social factors predict distracted driving behaviour (Javadi, Azad, Tahmasebi, Rafiei, Rahgozar, & Tajlili, 2015).

Understanding psycho-social factors, such as individual differences as well as proneness to distracted driving behaviour will assist in the advancement of strategies that promote undivided attention on the road (Feng et al., 2014). For instance, personality factors can predict a driver's alertness or distraction (Byrne, Silas-Mansart & Worthy, 2014). Hence through personality psychology and driving behaviour, an individual trait which could be one of these five: agreeableness conscientiousness, extraversion, neuroticism and openness to experience could give a better understanding of distracted driving behaviour (Costa & McCrae, 1992).

Another variable, Locus of Control (LOC) was considered in this study (Rotter, 1966), a prominent theory that particularly promotes safe driving behaviours. LOC as a trait enables an individual to ascertain the extent to which some situations are under his control and those an individual cannot control (Hunter & Stewart, 2012). In addition, young drivers who have the tendency to control things around them are internally driven (Huang & Ford, 2012). On the other hand, young drivers who largely believe that situations are beyond them are externally driven (Boone & Hendricks, 2009). In this direction, a previous study found extraversion to be related to driver's distraction behind the wheel (Gavino, 2015). As such locus of control may be used to predict safe driving habits (Huang & Ford, 2012). Hence, the two dimensions of LOC are considered in this study concerning proneness to distracted driving behaviour among young drivers.

Aptly, previous studies suggest that locus of control is not independently sufficient to predict road traffic crashes and driver distraction behind the wheel but other factors may be responsible (Carpenter et al., 2014). Hence the introduction of the third variable, religiosity, which the researcher investigated to ascertain whether it would predict the criterion variable. Religiosity is believed to be the way an individual approaches religion. For instance, in Nigeria, religion has taken a new wave where virtually everything done is laced with religiosity. Religion-based moral attitudes have the tendency to promote safe driving culture of young individuals at the expense of risky behaviours (Scarpa & Haden, 2006). Religiosity is expected to improve the safety behaviour of individuals in traffic as well as discourage risk-taking and deviant behaviour (Ellison, 1998). In line with this, the more religious a driver is the less prone such an individual is, to distracting behaviour driving behaviour (Sinha, Cnaan, & Gelles, 2007).

Further to this, risky behaviours in traffic may be reduced based on the improvement of religiosity among young drivers (researchers (Koenig, Parkerson, & Meador, 1997; Turiano, Whiteman, Hampson, Roberts, & Mroczek. 2012). A religious individual is generally perceived as an individual who conforms to what society desires. Hence, they are known for compliance with traffic rules (Chliaoutakis, Koukouli, Lajunen & Tzamalouka, 2002). In other words, the more religious individuals are, the less they are likely to get involved in risky behaviours. In this direction, it was speculated that adolescents who belong to high-risk groups are highly prone to distracted driving behaviour (Romer et al., 2014). Also, those individuals who tend to engage in distracted driving behaviour are mostly young drivers (Poysti et al., 2005).

In addition, it was reported that certain personality characteristics: “openness to experience” young drivers are susceptible to risky driving behaviour, while agreeable young drivers are less prone to report distracted driving tendencies (University of Alabama, 2016). One could state that based on cultural differences more factors are likely to predispose young drivers to distracted driving behaviour tendencies. Hence, there could be the possibility that personality factors with other variables, as well as the mediatory role of propensity to risk-taking propensity might significantly predict proneness to distracted driving behaviour in this study. Despite, the knowledge of the risks posed by

distracted driving behaviour, it has not yet translated into reducing the behaviour (Atchley et al., 2012). Drivers' phone use behind the wheel may be on the increase in spite of the rising evidence of its menace (Mccartt, Hellinga & Bratiman, 2006). Hence, the proliferation of mobile phones and their engagement while driving has prompted concern about driving safety because it is more pronounced among young drivers who are not only known to be inexperienced but also early adopters of technology (Olumami, Ojo, & Mireku, 2014).

Undoubtedly, electronic devices have become essential to everyday life and help to bring people closer together. The limitless stream of updates, chances of being invited and privileges of receiving obvious approval and comment from loved ones behind the wheel are pressure-mounting activities (BBC NEWS Online, 10th October 2017). Consequently, distraction behind the wheel may make both old and young drivers to be susceptible to distracted driving behaviour on Nigerian roads. Within the Ibadan metropolis and Nigerian cities at large, it is common sightseeing to see young drivers popularly called “baby drivers” holding mobile phones with one hand and driving with the other (Safe Road, 2015).

In this light, studies have found cell phone-related car crashes to be a societal challenge (Tison, Chaudhary & Cosgrove, 2011). Proneness to distracted driving behaviour may not only be more problematic among young drivers but also they need to have a clear understanding of the dangers of distracted driving behaviour. As such, an emerging threat to road safety is distracted driving which is another form of multi-tasking by conversing on the phone, sending a text message or replying to messages, eating, and drinking behind the wheel. Against this backdrop, drivers need to be reminded to stay focused and avoid distractions because distracting actions may prevent the driver to envisage threats and adequately respond to them (Gray, 2016).

In comparison to other aspects of road safety in Nigeria, knowledge about distracted driving behaviour is still evolving. Nigeria, is no doubt not exempted from road crashes involving distraction while driving (Emenike and Kanu, 2017). We must not wait till the time when several lives of young minds; Nigeria’s future generation and leaders that could have been saved are lost to road traffic crashes occasioned by distracted driving.

Substantial accomplishments have been recorded in reducing distracted driving-related road traffic crashes in several countries in the last few years (WHO, 2011). Until there is a device like Breathalyzer for alcohol test, drivers who engage in the use of phone behind the wheel are believed to be reluctant to admit its engagement behind the wheel. As such, the importance of safe driving behaviour cannot be over-emphasized and ways to improve it are being adequately addressed by nations of the world (Balogun, Mphele, Selemogwe, & Kote, 2013).

1.3: Justification of Study

The present study from the social psychological perspective sought to predict proneness to distracted driving behaviour among young drivers while considering the personality factors, the locus of control and religiosity. Since, there could be the possibility of the personality factors acting singularly and or in conjunction with each other to predispose young drivers to distracted driving behaviour, understanding those factors which predispose young drivers to distracted driving behaviour is essential to being able to purposefully address its growing problem.

Also, in all the comprehensive literature reviews done, much work have not been carried out concerning psycho-social factors (religiosity, personality traits and LOC) and young driver's distraction in Ibadan.

With the various gaps in knowledge stated above, the following research questions will be answered:

1. Is there a relationship between psycho-social factors and proneness to distracted driving behaviour?
2. Is there a relationship between psycho-social factors and risk-taking propensity?
3. Will psycho-social factors significantly, independently and jointly predict proneness to distracted driving behaviour?
4. Will psycho-social factors significantly, independently and jointly predict involuntary distracted driving behaviour among young drivers?
5. Will psycho-social factors significantly, independently and jointly be predicted by voluntary distracted driving behaviour among young drivers?

6. Will psycho-social factors significantly, independently and jointly mediate risk-taking propensity to predict distracted driving behaviour among young drivers?

1.4: Objectives of Study

The proposed study specifically intends:

1. To determine the relationship between psycho-social factors and proneness to distracted driving behaviour among young drivers.
2. To determine the relationship between psycho-social factors and risk-taking propensity among young drivers.
3. To examine if psycho-social factors will significantly, independently and jointly predict proneness to distracted driving behaviour (voluntary and involuntary).
4. To examine the mediatory role of risk-taking propensity through psycho-social factors as predictors of proneness to distracted driving behaviour.
5. To recommend appropriate measures that will reduce proneness to distracted driving behaviour.

1.5: Relevance of Study

The rising disposition to driving risk acceptance of this aberrant behaviour and low booking of the traffic offence all validate that Federal Road Safety Corps (FRSC) need a deep knowledge of why this aberrant behaviour is growing and what interventions is needed to effectively curb it. This study will therefore:

1. Provide insight into why young drivers might be susceptible to distracted driving behaviour, revealing significant knowledge for promotion of safe driving culture.
2. Advocate for early interventions toward high-risk driving behaviour.
3. Provide channel to tailor the injury prevention efforts in relation to this distracted driving behaviour to specific personality traits development. Undoubtedly, the current study would be an addition to knowledge on distracted driving behavior in no small way.

4. Future researchers' understanding of psychology of distracted driving behaviour and other variables that need to be investigated will be enhanced.

1.6: Operational Definition of Terms

Proneness to distracted driving behaviour

In the context of this study, proneness to distracted driving behaviour is hereby defined as the tendency of a young driver to voluntarily or involuntarily use his phone behind the wheel. Voluntary is any action involving the use of a phone that is initiated by the driver which allows him to alter the driving behaviour to compensate for being distracted. On the other hand, involuntary distraction is when the driver is cognitively incapable to suppress irrelevant information while focusing on the primary task of driving. The criterion variable was assessed using the Susceptibility to Driver Distraction Questionnaire (SDDQ). Those who score high on the scale tend to be distracted behind the wheel while those who score low on the scale are not.

Psycho-Social Factors

In this study, psycho-social factors considered are both an individual's psychological makeup (five personality factors, locus of control and religiosity) along with the social context out of driving which it arises. Thus, Psycho-social factors offer a more comprehensive and effective method for understanding proneness to distracted driving behaviour at an individual level and in the social context in order to facilitate the establishment of effective policies.

Personality Factors

These are the five factors that describe structural relationships between the traits: extraversion, neuroticism, conscientiousness, agreeableness and openness which constitute the focus of this present study concerning proneness to distracted driving behaviour. A 10-item version of the Big Five Inventory- BFI-10 was used

Extraversion

This is considered to be an active disposition of young drivers toward the social and emotionality. It encompasses traits such as sociability.

Agreeableness

This has to do with young drivers' social relationships which take into account traits like compliance.

Conscientiousness

This takes into cognizance socially approved impulse control that enables task- and goal-directed behaviour and highly conscientious young drivers tend to be very good at organizing, prioritizing and planning,

Neuroticism

Unlike extraversion which is positive emotionality, neuroticism is negative emotionality in form of feeling anxiety, nervousness and depression.

Openness

This is characterized by active imagination of young drivers.

BFI – 10 developed by Rammestedt & John (2007) was used in the measurement of the Five Factor Model (FFM). Participants who scored high concerning the criterion variable on each construct might be prone to distracted driving behind the wheel while those who score low might not.

The Locus of Control

The Locus of control (LOC) considered in this study has two levels: internal and external. The LOC is the level to which a young driver generally sees his driving activities to be under his control (internal locus of control) or under the control of powerful others (external locus of control). The Traffic Locus of Control Scale (T-LOC) developed by Özkan & Lajunen, (2005) was used for measuring these personality traits. Those who score high on internal locus of control concerning the criterion variable are likely to

attribute proneness to the use of a phone behind the wheel to their skill and would believe they have control over their driving skill while those who are high on external locus of control are young drivers who base their proneness to use of phone behind the wheel on outside influences.

Religiosity

Religiosity in this study shall be defined as the degree to which one integrates one's religious beliefs into one's life as well as the foundation for one's life decisions. The Duke University Religion Index (DUREL), subscale – Intrinsic Religiosity (IR) was used to measure religiosity because an item out of the three -items of IR was the best predictor of religious orientation - “My religious beliefs are what lie behind my whole approach to life” (Koenig & Büssing, 2010). In other words, young drivers with this approach will bring their religious beliefs virtually into any form of activities they engage in. Those who score high on the scale concerning the criterion variable are likely to have strong convictions in God or a higher power that can prevent or reduce proneness to distracted driving behaviour while those who score low on the scale are unlikely and will be prone to distracted driving behaviour.

Risk-Taking Propensity

In this study, risk-taking propensity as a general disposition is operationalized as an individual's preference for choices of higher risk-taking behaviour across situations and time. As a mediatory variable, it was measured with self-report questionnaires, GRiP developed by (Zhang, High house, & Nye, 2018) to ascertain its independent and joint influence effect on the dependent variable- proneness to distracted driving behaviour. Those participants who score high on risk-taking propensity might likely be prone to distracted driving behaviour while those who score low might not.

Young Drivers

In Nigeria, once an individual attains 18 years old, such an individual is eligible to apply for a driver's license. Age is an importance factor to be considered in driving. An applicant for the driver's license must be 18 years and above who is both physically and mentally sound to pass a driving test, and afford the prescribed fee (National Road Traffic Regulations, 2012). Thus, in this study, young drivers are within age 18-25years.

CHAPTER TWO

LITERATURE REVIEW

It consists of theories as well as the concepts of proneness to distracted driving behaviour among young drivers, operational definition of relevant terms and hypotheses for the study.

2.1. Theoretical Framework

2.1.1 Attribution Theory

Attribution theory depicts the reasons we give for our achievement and failure experiences such as luck effort, ability and task difficulty. In other words, attribution theorists examine the perception of causality of the reason behind a specific outcome. This not only refers to the causes of behaviour but also several factors that allow us to make attribution. Such factors are not only limited to but include situational /dispositional as well as the internal/ external locus of control (Plante, 2011). Internal factor denotes that individuals have control and influence largely over their experiences in life. Hence, the external locus of control denotes that individuals do not have control over themselves. For instance, defensive driving on the road that is due to training is a reflection of an internal factor unlike luck which typifies an external factor that may help to define the distracted-young driver personality type.

Situation attribution is a way of assigning the cause of behaviour to factors outside an individual's control instead of some internal factors. The situational factors describe those external influences controlling behaviour while dispositional factors describe enduring features of an individual controlling behaviour (Plante, 2011). For instance, a young driver missing an intersection because the young driver is a novice driver would reflect a dispositional attribution. Thus, a young driver might attribute a road traffic crash to

picking up a friend's phone call behind the wheel or ringing the phone- external factor; or being anxious while driving -internal factor.

Dispositional Attribution tends to assign the cause of behaviour to an individual rather than external factors. It also makes available useful information for the prediction of an individual's future. Further to this, it describes enduring internal factors such as personality traits which is referred to as fundamental attribution error. In this direction, distracted driving behaviour has a causal attribution challenge of human error (Regan, Lee & Young, 2009). Perhaps, theories of attribution may be predictive of aspect of a driver that elicits distracted driving and minimize safe driving behaviour among young drivers. The tendency to explain young drivers' distracted driving behaviour in terms of internal factors and to misjudge the influence that external factors have on another young driver's driving behaviour may give rise to fundamental attribution errors.

Attribution emphasises the responsibility of others at the expense of self which can be used in explaining proneness to distracted driving behaviour. Hence, paying attention to this concept can also make young drivers consider what they were doing that could have contributed to their phone use behind the wheel. By not underrating the fundamental attribution error, it is believed that young drivers may be able to foster greater mental flexibility and attention needed for safe driving behaviour.

Addressing Attribution Biases

Proneness to distracted driving behaviour is susceptible to attribution bias because of the belief that others' behaviours are a function of their personalities instead of their situations but this view may be held contrarily when explaining one's behaviours. For instance, a young driver may feel it is all right to receive a call behind the wheel but not if another young driver does it. Hence, other cognitive predispositions may lead to overrating of abilities. In other words, a young driver may perceive himself as a good driver that is less prone to distractions than most other young drivers. Hence, improving young drivers' safety may entail that he learns to identify their driving risks and objectively assess them according to road ethics. Also, this may assist others to recognise the hazard involved in

the unsafe driving behaviour. Thus, unsafe driving may be viewed as a threat to all road users while safety culture benefits all.

Applying this social psychological construct in explaining phone-use driving behaviour will no doubt be useful in predicting the susceptibility of young drivers to distracted driving behaviour. For instance, intentional behaviour such as voluntarily engaging in the use of phones behind the wheel is dispositional. Further to this, the hedonistic relevance of a ringing phone could also make a young driver prone to this unsafe driving behaviour. Hence, attribution theory alongside other theories: Theory of Planned Behaviour (TPB) and deterrence theory in this study would throw more light on proneness to distracted driving behaviour.

2.1.2 Theory of Planned Behaviour (TPB)

Theory of Planned Behaviour tends to give room for factors such as attitudinal, normative, and control influencing drivers' proneness to distracted driving behaviour to be assessed. TPB aptly states that the performance of a behaviour depends on intention and other factors round such behaviour (Ajzen, 1991). TPB has the capacity to predict intentions and behaviours from interventions (Lange, Kruglanski & Higgins, 2012). In congruence, previous studies affirmed the predictive prowess of the TPB (Castanier, Deroche, Woodman, 2013; Aghamolae, Glanbiareadad, Abdolhamidtajvar, Asadiyan & Ashoogh, 2013 & Lange et al., 2012). The TPB forms the basis for investigating voluntary as well as involuntary distraction and suppression of action that is not fundamental for safe driving).

Generally, TPB is designed in a form that does not only take cognizance of motivated behaviours of individuals but also any behaviours since people greatly differ in their intention. For instance, some individuals use their phones while driving while others do not (Lange et al., 2012). Nonetheless, a construct of the TPB might be able to reveal the extent to which drivers are capable of performing a specific behaviour such as distracted driving. For instance, previous studies in terms of TPB reported positive attitudes towards distracted driving behaviour and acceptance of social norms around it (Mizenko, Tefft, Arnold, & Grabowski, 2015; Rowe, Andrews, Harris, Armitage, McKenna, & Norman, 2016). As the use of phones behind the wheel has become a contemporary road safety

discourse, previous studies revealed that positive attitudes toward distracted driving behaviour predicted the intention and actual behavioural (Rowe et al., 2016 & Mizenko et al., 2015).

Furthermore, attitude, a social-psychological factor, predicted distracted driving behaviour (Chen & Donmez, 2016). In addition, extant literature have found subjective norms to have effects on proneness to distracted driving behaviour as well as attachment with others (Rowe et al., 2016; Terry & Terry, 2016). Hence, social norms and emotional attachment are of high concern to drivers at the expense of the perceived risks (Atchley, Hadlock & Lane, 2012). Undoubtedly, this will also be an influencing factor on both the intention and the behaviour of drivers engaging in distracted driving behaviour (Prat, Gras, Planes, González-Iglesias, & Cullman, 2015).

Although there are contradictions in research between enforcement, high intention to engage and crash risk through distracted driving behaviour, the existence of high correlations is not in doubt (Prat et al., 2015). In this light, drivers acknowledged to high risk of engaging in distracted driving behaviour and habitually engaging in distracted driving behaviour (Ismeik, Al-Kaisy, & Al-Ansari, 2015). In this line of thought, drivers played down the hazard involved in distracted driving behaviour (Prat et al., 2015).

However, it is not only believed that individuals vary greatly in their intention but also well established that an individual tends to display behaviour in another day partway based on his past behaviour (Sutton, 1994). For instance, a young driver could think that he can use his mobile while driving. Putting the conditions of the road into consideration which he may have control over; thereby creating a gap between intention and related behaviour. This possibility could help explain the introduction of another theory.

2.1.3 Deterrence Theory

This theory by Beccaria, Bentham, and Becker, stipulates that criminal penalties do not just penalize offenders but also prevent other individuals from being victims of similar crimes. In this direction, the theory adheres strictly to these three key principles of deterrence: certainty, severity, and swiftness to inhibit criminal behaviour by fear, especially of punishment. Aptly, deterrence theory targets the modification of road safety

behaviour (Davey & Freeman, 2011). It states that young drivers will not violate traffic rules, if they are afraid of the outcomes of their distracted driving behaviour. Thus, it advocates that such drivers will be discouraged from engaging in distracted driving behaviour such as the use of the phone at the wheel if they perceive that there will be a penalty for engagement in distracted driving behaviour (Davey & Freeman, 2011). This will make drivers think about the policy violation and adopt a rational choice of not engaging in traffic offences (Carter & McBride, 2015).

For instance, a Nigerian-born minister in Canada was pulled over by the police for the use of a phone behind the wheel in a school zone on 10th March 2021. He was issued a traffic ticket of \$300 and paid 48 hours later. The consequence of distracted driving behaviour temporarily changed his ministerial duties in place of the completion of his investigation (Erezi, 2022). As such, deterrence theory has remained a keystone for policymakers and enforcement agencies through the application of knowledge of certainty, severity and swiftness of punishment in relation to distracted driving behaviour, (Davey & Freeman, 2011). Certainty is the perceived tendency that offending drivers will be arrested and punished for their erring behaviours. In other words, the probability of being caught for breaking the law is relatively high (Bates & Anderson, 2019). Therefore, young drivers who perceive their likelihood of being arrested for distracted driving behaviour as high, will be less prone to it in comparison to those that perceived it to be low. Hence, road safety activities that enhance such high certainty for the arrest of unsafe behaviour have high chance of positively reducing proneness to distracted driving behaviour.

On one hand, drivers will hesitate to commit traffic offences if the penalty is perceived as severe and more than the rewards (Bates & Anderson, 2019). On the other hand, the severity of the sanction is more profound individuals who have been officially judged to be guilty of traffic offences for the first time compared to individuals who frequently have been convicted of traffic offences and are presumed to be threat to other road users. (Davey & Freeman, 2011). Thus, deterrence of distracted driving behaviour is possible in a situation wherein a young traffic offender perceives that distracted driving behaviour will not only be detected but also attracts severe punishment.

This theory in relation to other attitudinal and behavioural factors may explain why a young driver is engaged in distracted driving behaviour more than the traditional legal sanction (Davey & Freeman, 2011). A previous study reported that traffic regulation prohibiting this unsafe behaviour did not reasonably reduce distracted driving behaviour among drivers who frequently have been convicted of this traffic offence (Nelson et al., 2009). In addition, it was found that formal deterrence machinery (police) did not alter distracted driving behaviour but informal deterrence (parents) did (Allen, Murphy, & Bates, 2017). As such, young drivers are susceptible to distracted driving behaviour (Cassarino & Murphy, 2018). To this end, insight into how deterrence theory affects young driver behaviour is a necessity (Bates & Anderson, 2019).

2.2. Review of Empirical Literature

This section provides the empirical framework and relevant literature on the psycho-social factors (personality factors, locus of control and religiosity) and risk-taking to gain more knowledge and understanding about proneness to distracted driving behaviour.

2.2.1: Personality Factors and Distracted Driving

The Big 5 personality traits are agreeableness, conscientiousness, extraversion, openness to experience, and neuroticism. Understanding what each of these traits stands for and what it means to score high or low in a trait gives an insight into what an individual's personality is. Based on this model, personality tests measure where an individual lies on the continuum for each of the personality traits listed. Agreeableness is being kind, conscientiousness is being thoughtful, extraversion is being sociable, openness is being creative and intriguing, and neuroticism is being sad or emotionally unstable.

A model that describes relationships between personality traits is the five-factor model but it does not suggest the traits' causes and consequences they may follow (John & Srivastava, 1999). Based on this model three core components are developed: (a) basic tendencies, (b) characteristic adaptations, and (c) self-concept (McCrae and Costa's, 1996). In congruence with this model, there is evidence of the universality of the factors and replications in some cultures (McCrae & Terracciano, 2005).

Based on previous studies, there is the existence of a positive connection between traits and risky driving behaviour (Parr, Ross, McManus, Bishop, Wittig, & Stavrinou, 2016). They found that higher traits among teen drivers were predictive of unsafe driving behaviour. In addition, older drivers with personality traits (extraversion) were predictive of distracted driving behaviour. Similarly, conscientious individuals displayed less risky driving exercises and suffered fewer road traffic crashes (Ehsani et al, 2015).

Against this backdrop, researchers observed that conscientious drivers were highly prone to use of phone behind the wheel (Akinniyi, Akinnawo, Akpunne & Oyeleke, 2019). Although it is believed that conscientious individuals are known to be organized, dependable, and even obsessive. They were found to be prone to phone addiction (Li, & Lin, 2019). A possible explanation for the observed inconsistency in results could be the complex nature of human behaviour. Cultural and social factors are also germane to safe driving. For instance, one of the studies was carried out in China (Asia) and the other one in Ibadan, Nigeria (Africa).

However, the equivocality in the literature, personality psychology and the study of driving behaviour are inseparable (Galovski & Blanchard, 2004). Studies have found that driving errors of commission are predictable from individuals with low self-control (Ferreira, et al. 2009). In a similar study, 540 students were examined, and there was a connection between drivers who are involved in road traffic crashes and distracted driving behaviour. Hence, the mobile phone (a communication device) use while driving might be predicted by personality traits (Phillips, Sailing & Blaszczynski, 2008). Also, personality traits have been linked with many risk behaviours as well as road traffic crashes and near-crashes. (Ehsani et al. 2015; Braitman & Braitman, 2017). It has been reported that extraversion and neuroticism are the two most universally accepted dimensions in the five-factor personality framework in relation to driving behaviour (John, Donahue & Kentle, R.L. 1991). In addition, conscientiousness is a fundamental determinant of safe driving culture (Roberts, Lejuez, Krueger, Richards, & Hill, 2012). Thus, personality traits and unsafe driving behaviour are relevant to traffic safety.

2.2.2: Locus of Control

This personality factor reveals whether someone has the perception that a situation is under their control or otherwise of other forces (Hunter & Stewart, 2012). Locus of control was designed to evaluate generalized expectancy (Rotter, 1966). In addition to this, Rotter discovered how individual action is forced when the outcome is positive and inhibited when it is negative. Having an understanding of this important personality concept will guide in prediction of an individual's driving behaviour (Knievel, 2008). Locus of control has become an effective tool in studying Road Traffic Crashes (RTC) and risky behaviours (Gavino, 2015). Remarkably, this construct is a good predictor of safe driving behaviour (Huang & Ford, 2012).

A previous study has also linked the construct to be related to unsafe driving behaviour (McLaughlin, 2013). Similarly, it was found that risky driving behaviours and LOC had a significant interaction effect on RTC (Gavino, 2015). In this line of thought, a related study suggested that externals are more susceptible to RTC (Montag & Comrey 1987). These results show that individuals who are often distracted while driving are inclined to transfer responsibility for their actions to external factors. As expected, the patient and careful driving style is positively connected with the internal locus of control, characterized by the ability to adopt strategies and stable actions. That is the more internal drivers' locus of control is, the higher their tendencies to adopt the patient and careful driving style. This result is logical because individuals who are careful, concentrated, and patient while driving are more likely to accept and take responsibility if a road accident occurs. These results are partially similar to those obtained in other studies because internals may overestimate their skills and since they believe that RTCs are the consequence of their behaviour engage in risky behaviour and have confidence that they possess the skills needed to prevent RTC (Arthur & Doverspike, 1992).

To further confirm the relationship between Locus of control and driving behaviour, young drivers who believed the causes of their RTC are their activities are more prone to unsafe driving behaviour and RTC (Özkan and Lajunen, 2005). However, not all studies give conclusive evidence that locus of control and distracted driving behaviour are correlated. Hence, researchers suggest that locus of control is not independently sufficient

to predict RTC and unsafe driving behaviours but there are other factors to be examined too (Carpentier et al. 2014).

2.2.3: The Relationship between Religiosity and Distracted Driving Behaviour

Religiosity is simply how individuals approach religion (Allport, 1966). Within the psychology of religion, religiosity has been a central point in the last four decades (Tiliopoulos, Bikker, Coxon, & Hawkin, 2007). Religiosity has great relevance in the psychology of religious attitudes and behaviour (Wai, 2008). It is the variation between individuals' commitment to religion (Ebaugh, Chafetz, & Pipes, 2006). Also, it is one of the ethical and moral psychological constructs which can affect the behaviour of individuals (Kordani, Hassanpour, & Lenjani, 2020). Religion is expected to improve the safety behaviour of individuals in traffic as well as discourage risk-taking and deviant behaviour (Ellison, 1998).

A previous study found that individuals having a religious lifestyle do not engage in deliberate violations while driving (Chliaoutakis, Koukouli, Lajunen, & Tzamalouka, 2005). The authors inferred that religiosity can promote safe driving behaviour by orienting individuals to obey traffic rules while preventing them from committing ordinary violations. Hence, religiosity increases self-control, and reduces socially unacceptable behaviour, and criminal behaviours (Hosseinkhanzadeh, Yeganeh, & Mojallal, 2013).

In differentiating between the two forms of religiosity: extrinsic and intrinsic religiosity, Allport (1966) was one of the first researchers who did so. He opined that an intrinsically religious individual places ultimate value on faith while an extrinsically religious individual regards religion as a way of expressing their beliefs because it is an instrumental value to accomplish their motives. In other words, extrinsically orientated individual takes advantage of their religion, whereas intrinsically orientated individual lives their religion (Allport & Ross 1967).

Religious behaviour is also a function of a distinction in orientation in the sense that intrinsic religious orientation are linked with secured religious beliefs. On the other hand, the extrinsic religious orientation is a medium through which goals are accomplished

outside of the religious structure such as forming business partners from the church (Brown, 2006). Intrinsic religiosity could be interchangeably referred to as internally oriented religiousness (Ebaugh et al., 2006). Intrinsic religiosity was considered since such individuals put a greater emphasis on religion as a vehicle for forming a spiritual relationship with God while shaping their lives around religious beliefs and practices (Allport and Ross 1967).

Looking at religiosity and proneness to distracted driving behaviour concerning phone use behind the wheel, it is believed that the mobile phone is the most adored electronic device. This is because the mobile phone occupies almost a sacred position in the lives of several individuals and has become an indispensable tool for religious as well as secular interactions. In this light, several mobile phone applications support a variety of religious practices, fostering a digitized spiritual connection notwithstanding the physical surroundings. Hence, mobile phone devices emergence is seen as “the new gods”. (Davies, 2019).

It must however be stated that technology and religion are interwoven. A form of religious shaping of technology is its use to promote and spread religious thoughts and practices and vice versa (Campbell, 2007). Religious practices are closely mixed with human dealings across the globe (Campbell, 2006). The dissemination of doctrines and enforcement of religious beliefs are more effectively carried out through mobile telephone communication (Fukamizu, 2007). Accordingly, 93 per cent of Nigerian respondents say they are religious (Sahara Online Reporter, 13th September 2012).

Religiosity depicts an organized system of beliefs and participation in a religious society that is able to protect from risks (Ball, Armistead, & Austin, 2003). This set of beliefs may bring down the participation of individuals in risky behaviours (Scarpa & Haden, 2006). In congruence with a previous study, risky behaviours were found to reduce when religiosity was on the increase (Sinha, Cnaan, & Gelles, 2007).

The three core dimensions of religiosity from a psychological perspective are Intrinsic Religiosity (IR), Organizational Religiosity (OR) and Non-Organizational Religiosity (NOR). In this light, Duke University Religion Index (DUREL) measures religiosity using

the aggregate of the three subscales. In this direction, the previous study described organizational religiosity as public religious activities, participation in a formal religious institution and social religiosity; non-organizational religiosity as the regularity of private activity such as the reading of the religious book / which do not only take place in a formal setting but also in an informal setting; and intrinsic religiosity as the dominance of spiritual /religious influence in daily life and decision (Koenig, et al 1997). In addition, the related study found that all the three types may help to improve safe driving behaviour (Turiano, et al., 2012). For instance, religiosity was significantly related to driving behaviours. Also, religiosity were related to less aberrant behaviour but more to the use of the phone on the wheel including sending text messages (Young, Denny, Penhollow & Donnelly, 2004).

In addition, intrinsic religiosity is capable of reducing unsafe behaviours of young drivers. Thus, religion may enhance road safety practices among young adults (Tabrizi, Akbari, Lankarani, Heydari, Masoudi, Shams, Akbarzadeh, Moalemi, Mehr, Sadati & Peymani, 2017). Nonetheless, it is expected that a young driver's religious beliefs should also be practised while driving on the highway and not only while dealing with God. Thus, young drivers are not only supposed to be submissive to the laws of religion alone but also that to traffic regulations that prohibit use of phones while driving. Religiosity is a channel through which an individual cultivates the habit of putting limitations on his behaviour, moderating his lifestyle, more frugal life devoid of extremities. Religiosity is also linked with rule compliance resulting in reduced unsafe driving behaviours (Chliaoutakis, et. al., 2002).

Further to this, a study found the more religious individuals were the less they were prone to risky behaviours (Ameri, Mirzakhani & Nabipour, 2016). Consequently, reducing young drivers' engagement in unsafe driving behaviour may be curtailed through religious programs tailored to reduce distracted driving behaviour. As such, young drivers who are high on religiosity may less likely to be prone to distracted driving behaviour. Hence, religious beliefs may not only bring the sense of preservation of life but also may lead to a healthier life which is partly rooted in traffic regulations compliance. Hence, observance of law which religion promotes may promote traffic safety (Pourshams & JanFada 2017).

2.2.4: Proneness to Distracted Driving - Phone-use

One major aspect of distracted driving behaviours is phone use which takes place when a driver is engaged in other activities aside from the primary task of driving. For instance, the use of a phone behind the wheel constitutes an act of unsafe driving through divided attention. Such unsafe driving acts may cause a brief loss of attention in the driving task being executed. As such, drivers may place priority on attending to the phone over the primary task of driving by their will or involuntarily (Feng & Donmez, 2013).

In the context of this study, proneness to the use of a phone while driving can also be described as a young driver voluntarily or involuntarily using the phone behind the wheel. Therefore, to effectively measure young drivers' distractibility, it is important to distinguish voluntary and involuntary phone use. Voluntary distraction has been shown to be positively associated with risky driving behaviour especially among ages 18-25 (Feng, et al., 2014). It also has a strong link with risky driving behaviours (Dahlen, Martin, Ragan & Kuhlman, 2005).

On the other side, involuntary distraction was positively related to the prevention of driving errors cognitively which have a tendency to result in road crashes (Allahyari, Saraji, Adl, Hosseini, Iravani, Younesian, & Kass, 2008). Inattention to driving activities is a vital factor to be considered in adolescent crashes (Romer, et al., 2014). Despite the law prohibiting use of a phone while driving, many young drivers still engaged in it (Vanguard Online, 20th September 2018). Thus, young drivers within 18-25 years are indeed indispensable for any research that aims to reduce distracted driving behaviour. Therefore, factors such as auditory distraction, visual distraction, manual distraction, and cognitive distraction are better understood in relation to both voluntary and involuntary distractions.

2.2.5: Risk-Taking Propensity and Proneness to Distracted Driving Behaviour

Risk-taking is described as an individual's ability to consciously or unconsciously take chances based on an outcome that is not certain and can be in the form of possible benefits or costs for the physical, economic, or psycho-social well-being of oneself or others.

There are three causative factors to the degrees of risk while driving: the driver, the vehicle and the roadway (environment). All drivers are faced with risks, but the factor that contributes most to crashes and deaths seems to be inexperience. Young drivers are believed to be at risk because age is also a significant risk factor that may explain aggressive driving and speeding.

Some of the other factors that are responsible for risk-taking driving behaviour are driving at night, driving under the influence of alcohol and other psychoactive substances, sudden lane changes, and actions of other drivers to gain social approval or acceptance. For instance, peer pressure plays a significant role in risk-taking behaviours. If the driver sees their friends or peers engaging in risky behaviours such as receiving calls while driving and desires to be accepted, this might make such driver to be susceptible to such behaviours.

Phone use behind the wheel is an aspect of distracted driving behaviours that are multi-dimensional such as a message, a call, answering a call, listening and talking require different levels of attention. Consequently, it has been asserted that making and receiving a call is more distracting and dangerous because they take away concentration from the roadway (Shinar, 2007). Through an observational study, it was discovered at the intersection with STOP signs, majority of the drivers who were engaged in distracted driving behaviour did not stop when they approached the intersection. Some of these gaps may not only be due to divided attention from this unsafe driving behaviour but also traceable to drivers' high risk-taking tendency (Strayer & Drews, 2006).

In this line of reasoning, previous studies advocated for drivers' education on the appropriate demands in response to specific traffic signs (Ugwuegbu, 1977). In addition, a high-risk group of adolescents are highly exposed to road traffic crashes (Romer et. al., 2014). Although this aberrant driving behaviour may expose young driver to significant risk of road crash, it may also be more common in young drivers who manifest some risk-enhancing behaviours. Hence, individuals who are prone to t distracted driving behaviour are mostly young drivers with low safety motivation (Poysti, et al., 2005). And are highly vulnerable to risk-taking (Maten, 2004). In term of gender, males have high crash risk (Shinar, 2007).

Risk-taking makes drivers to be more prone to frequent lane changing, excessive speeding, and hard acceleration (O, Reimer, Mehler, D'Ambrosio & Coughlin, 2012). There seems to be a connection between distracted driving behaviour and risky behaviour resulting in road traffic crashes. Previous studies found that age differences were widely involved in terms of unsafe driving behaviours since younger drivers indicated low support for traffic regulations than middle-aged and older drivers (Hamilton, et. al., 2013)

2.2.6: Young Drivers and Distracted Driving Behaviour

Historically, the foresightedness of Major General Jemibewon was instrumental in the establishment of the premier Road Safety Corps in Africa. In 1977, when Professor Wole Soyinka took a proposal to him for the creation of such a Corps, he not only bought the idea but also invited studies on the problem of carnage on the road of Oyo State. Professor Soyinka was disheartened by the untimely deaths of the future leaders on the Ibadan- Ile-Ife expressway. These preventable events made teaching meaningless because no one would be happy developing young minds, only to have them wasted on the road. Those obituary notices posted on campus walls: Died in a ghastly accident are of great concern to the society at large.

In this vein, the wife of the former Vice President, Her Excellency Mrs Amina Atiku, was worried by the increasing rate of road crashes involving “baby” drivers – young drivers in the country and charged the FRSC to reinvigorate strategies aimed at checking this ugly trend which constitutes safety hazards on the nation’s highway. Also, the FRSC should supervise the testing and issuance of driver's licences to young drivers and prevent underage driving (The Marshal, 1999).

The National Road Traffic Regulations, 2012, states the provisions for the issuance of driver licenses in Nigeria. Such applicants must be 18 years and above whose mental and physical well-being must not be in doubt; sit for the prescribed driving test which must be passed, and pay the prescribed license fee for a private license. In this direction, the Driving School Standardization Programme (DSSP) of FRSC has made it compulsory for fresh applicants to attend certified and approved driving schools for a private license (National Road Traffic Regulations 2004). For a commercial or professional license (Class

E, F, G and H) the regulations put an age limit of 26 years and must be in possession of Class B or D. Applicants for these categories of licenses are also subjected to medical screening from approved government hospitals before payment of a three or five years license is made in a bank. (THIS DAY, 2nd October 2016). Aptly, there are three classifications of driver's license by age: pre-adult (18-25) years, the adult (26-64) years category renewable every three (3) years or five (5) years a post-adult age of 65 years and above (THIS DAY, 2nd October 2016). In the context of this study, the pre-adult category was considered concerning proneness to phone use while driving.

The pre-adult group is highly prone to road crashes and high traffic violation record (WHO, 2011). This growing trend of collision risk of newly qualified drivers is well documented in Great Britain (Wells, Grayson, Tong, Jones, & Sexton, 2008). Also, road traffic crashes will be heightened the more technologies are being used within vehicles (Wells, et. al., 2008).

According to BBC news, driving is one of many tasks that some people will do simultaneously with using smartphones. Unlike most other activities, the penalties can be dangerous and life-threatening if the driver does not have full concentration on the road around them (BBC News Online, 17, October 2016). Inadequate attention to the driving task and unsafe driving behaviours are contributory factors to adolescent crashes (Romer et al., 2014). In Nigeria, road traffic crashes had become the leading cause of death among youth, ages 15 and 29 years as a result of under-aged driving, driving under the influence of alcohol, and refusing to obey traffic regulations, pointing (The Guardian Newspaper, 2016).

From child passengers to young drivers may presumably not be an easy ride. Young children may not only depend on adults for transportation and safety but also for learning as future drivers. However, this unsafe driving behaviour of divided attention among parents are common and the association of such behaviours with distracted driving may place child passengers at increased risk of road traffic crashes. For instance, parents make known using mobile phones while driving to their 1- to 12-year-old child as a passenger at levels consistent with the U.S. adult population and more than two-thirds revealed child-

related distractions (Macy, Carter, Bingham, and Cunningham & Freed, 2014). Thus, driving distractions among parents not only expose child passengers to increased risk of road traffic crashes but also create opportunities for a young driver to be to copy such unsafe driving behaviour.

Significantly, the impact of distracted driving behaviour on traffic safety may not be accurately estimated but for sure it is a threat safety of road users. Distracted behaviour could be described as non-desirable actions which are not only secondary to driving tasks but a threat to driver's safety as well as other road users.

It has been reported that the cognitive component of distraction had the greatest influence on driving behaviour especially for teen drivers who are still undergoing development and has important implications for driving (Sachs, 2013; WHO, 2011; Griffin, 2017). To this end, mid-adolescence is also a time of heightened susceptibility to unsafe driving behaviour (Steinberg, 2004). In this direction, several forms of risk behaviour such as reckless driving that originated in adolescence are not only heightened in adulthood but also put individuals of other ages at risk (Steinberg, 2001).

Young driver's education may formally start in adolescence but it begins from the moment the parent turns an infant's car seat around. A young driver after all would have observed his/her parent's driving habits: safe or unsafe for more than a decade. It is often said that the young mind learns as much by watching what their parents do as by what their parents say. The kind of behaviour parents' model for their young drivers' matters by making sure they do not text or talk on the phone while behind the wheel. Research suggests that adolescents who are raised by authoritative parenting are less likely to engage in risky behaviour (Steinberg, 2001). As such, parenting practices that embrace safe driving behaviour are the key to developing the driving safety of young drivers (Hartos, Jessica & Eitel, Patricia & Haynie, Denise & Simons-Morton, Bruce, 2000).

Perhaps, the best teacher for a young driver should be a good parental role model who should be able to inculcate in him/her safe driving behaviour from the beginning. Young drivers who are privileged to have such parenting practices have been found to have fewer violations and lower crash rates (Hartos, Beck, & Simons-Morton 2004). This is consistent

with the previous study emphasizing the importance of parental modelling in adolescent distracted driving behaviour and further suggest that parents with higher levels of crashes and violations are more likely to have children with high levels of crashes and violation (Carter, Bingham, Zakrajsek, Shope, & Sayer, 2014).

Parents' attitudes and behaviours can influence young driver distraction tendencies. This is because parents who are phone users at the wheel in the presence of teen drivers may tend to reinforce such unsafe behaviour and may make a deep impression. To this effect, research has shown the biggest predictors of a teenager's texting and driving behaviour are parents as bad role models and friends (Zuckman & Beck, 2012). Young drivers are always watchful of the decisions (such as occasionally reading a text at a stop light or answering a phone call while driving), their parents make behind the wheel and may want to replicate the same because they see such behaviours as being acceptable. In this line of thought, the previous study suggests that parents' examples of driving behaviour do not only have a great impact on young drivers but also potentially more important are young drivers' perceptions of their parents' behaviours (Bingham, Zakraisek. Almani, Shope, & Saver, 2015). As such, they conclude that parents contribute in several ways to teen drivers' unsafe driving behaviour.

For instance, in a study, 50% of fully licensed teen drivers reported that they spoke with a parent behind the wheel and 18% acknowledged texting a parent behind the wheel. Nonetheless, only about 63% of parents admitted that their teen drivers use their phones behind the wheel (Bingham, et al., 2015). This implies that young drivers through imitation of unsafe driving behaviour are more prone to this aberrant behaviour. Hence, parents contribute significantly to safe/ unsafe driving habits adopted by their young drivers.

In ameliorating unsafe driving behaviour of teen drivers, summits were held and opportunities were identified to address the problem (Dunlap, 2012). In this direction, a related study found most of the young drivers who often engaged in unsafe driving behaviour were strongly influenced by parents as well as peers engaged (Carter, Bingham, Zakrajsek, Shope, and Sayer, 2014). In other words, young drivers tend to copy their parent's driving behaviours and attitudes. It is believed that children could be watching

recurrent mobile phone use of their parents and friends while driving which might result in a social norm that is difficult to change. This implies that imitation not only influences distracted driving but also other risky behaviours such as smoking (Hoffman, Sussman, Unger & Valente, 2006).

Although teen drivers might be more prone to texting while driving, several workers could also be seen working while behind the wheel in our metropolitan cities in Nigeria. However, both young and adult drivers should know that when they drive, they not only hold their safety in their hands but also, they may cause great injury to others. In addition, engaging in this aberrant behaviour might be difficult to react especially for inexperienced drivers. As such, staying off mobile phones while driving is an important habit to maintain for all age groups of drivers.

Teenagers and young drivers are to be trained towards developing safe-driving habits that are distraction-free right from their learning period. The safety of an individual may be the safety of all. Young drivers that may be prone to unsafe driving behaviour may lead busy lifestyles and see their periods behind wheels as the perfect time to catch up on many of the little things with their friends and relatives through their phones. Perhaps, when multi-tasking behind the wheel has become a routine, young drivers may tend not to consider it unsafe behaviour and may as well be indifferent to any evidence that draws their attention to its threat to road safety.

2.2.7: Distracted Driving Behaviour on Nigerian Roads

Distracted behaviour could be described as unsafe actions which are not only secondary to driving tasks but a threat to driver's safety as well as other road users. Generally, drivers are often known to be involved in activities that affect their attention while driving. Such activities are not limited to discussions/arguments but others which make driving to be unsafe.

In Nigeria, commercial drivers are exposed to diverse distracting behaviours such as passenger scouting, use of phones while driving, marketing in a moving bus, preaching, applying makeup and tending to children. Also, it was discovered that passenger scouting

was frequent among the non-driving activity. Resultantly, when driving is combined with non-driving activities, it will be disrupted and uncoordinated (Olapoju, 2016). In another study, almost all the commercial drivers were prone to unsafe driving behaviour while almost all of them indicated that a road traffic crash was related to their unsafe driving behaviour (Adeyemi, 2021).

Within Nigerian cities, it is common to see young drivers popularly called “baby drivers” engaging in unsafe driving behaviour (Safe Road, 2015). Studies have found cell phone-related car crashes to be a societal challenge (Tison *et al.*, 42011). There exists a relationship between road traffic crashes and divided attention (Olubiyi *et al.*, 2016). Studies have shown that the road type (Urban, rural and village roads) affects phone use (Kujala & Mäkelä, 2018). For some young drivers, social attachment will therefore may them engage in smartphone use in almost any situation (BBC Online News, 16th October 2016). As such, distracted driving behaviour may be more problematic among young drivers. To address this unsafe behaviour on Nigerian roads, erring drivers are arrested and fined by Federal Road Safety Corps (FRSC) personnel on the highways (Oyeyemi, 2003 & 2014).

Undoubtedly, human behaviour accounts for the main risk factors in terms of road traffic crashes (Akinyemi & Onuka, 2012). Research suggests that unsafe driving behaviour is a major determinant of road traffic crashes because the tendency to crash is heightened in such situations (Akande & Ajao, 2006). Consequently, distracted driving occasioned by the use of the phone is a threat to traffic safety. Nigeria is not without its share of road crashes that are distracted-related (Emenike & Kanu, 2017). We must not wait till the time when several lives of young minds; the future generation and leaders who could have been saved are lost to road traffic crashes occasioned by distracted driving.

Unfortunately, no breathalyzer-like instrument is in existence for phone- use behind the wheel and drivers in crashes are often unwilling to acknowledge use. As such, distracted driving behaviour is an emerging threat to traffic safety as drivers engage in multi-tasking eating, and drinking behind the wheel etc. Against this backdrop, drivers need to be reminded to stay focused and cut out distractions because distracting activities inhibit drivers’ vision to see potential threats and adequately respond to them (Gray, 2016). The

current all-pervading use of phones the behind wheel while driving is the main focus of this study. Its pervasiveness and control have also brought a paradigm shift in research in the area of traffic behaviour.

From the perspective of traffic laws, the National Road Traffic Regulations 2012 section 166 clearly states that “no use of communication devices while driving”. Further to this, as stated FRSC in the notice of offences and penalties sheet concerning making or receiving a phone call while driving vehicles, it is a traffic offence with a fine of N4000 and or 6 months imprisonment. It must however be stated that this aberrant behaviour is not allowed by law in Nigeria. These steps are taken to prevent distractions which may be triggered by positive or negative news in form of excitement and loss of concentration thereby resulting in a Road Traffic Crash (RTC). It is advisable for any driver with the intention of using Google Maps to do so before taking off rather than when the vehicle is already in motion. This precaution must be taken to prevent divided attention which is inimical to the driver’s safety and other road users.

2.2.8: Peer Pressure and Distracted Driving Behaviour

Peer pressure is the process in which a peer group influences an individual member in such a way that makes the person to conform to their behavioural expectation. Human behaviour is highly contagious in the sense that we affect each other positively or negatively just by being together. However, it can be negative in the form of distracted driving behaviour occasioned by peer pressure. As such, the driving behaviour of peers has a reasonable influence on young drivers (Bhatoe, 2010). For emerging adult drivers, most of the pressure comes from their peers which makes young people drive more dangerously (Haley, 2010).

The distracting activities of young adult drivers are not only limited to looking away from the road but also conversing with other passengers or peers using their mobile phone (cognitive distraction) which is receiving increasing attention. Frankly, distracting activities do not often essentially involve a mobile phone. Research suggests that emerging adults are often consciously distracted by passengers. In other words, they are distracted by passenger behaviours (Heck, & Carlos, 2008).

A common occurrence is peer passenger distractions (Curry, Mirman, Kallan, Winston, & Durbin, 2012). This could be in two forms: divided attention when the driver diverted his attention away from roadway or when the driver is engaged a point that it result into a cognitive distraction (Regan & Strayer, 2014). Peer pressure is part of texting and driving because emerging adults do not want to ignore their friends (Collier, 2012). This is based on the premise that young adults give the greatest importance to peer norms for behaviour (Brown & Larson, 2009).

In addition, the presence of other emerging adults in a moving vehicle may escalate the risk of road traffic crash through cognitive distraction. To this effect, a previous study reported that peer texting behaviour impacted the prevalence of distracted driving behaviour as well as increase the rate of fatal car crashes among emerging adults (Trivedi et al, 2017). In light of this, risk of a fatal road crash increases in direct proportion to the number of emerging adults in the car. Hence, several distractions for emerging adult drivers were more common in the presence of peers (National Highway Traffic Safety Administration, 2012).

Previous research among teenagers reported that most of their friends engaged in this unsafe behaviour of texting while driving (Zuckman & Beck, 2012). By implication, carrying teenage passengers in the car by the teen driver may have many potentially distracting impacts. However, the perceived risk of teen passengers is significantly lower compared to driving behind the wheel while using mobile phone (McEvoy, Stevenson & Woodward, 2007). Nonetheless, there is a possibility that carrying young passengers may result into more distraction- related road traffic crashes (McEvoy et al. 2007). In other words, the presence of teen passengers may make the young drivers to be more unsafe. Peer passengers might impact male teen driver crashes not only by distraction but also through risk-promoting pathways (Haley, 2010). And also, a female connection is mainly through internal distraction (Curry, et al., 2012). Further to this, same-age group or same gender peers may also influence young drivers' behaviour (Bhatoe, 2010).

However, a moment of talking to passengers while driving may result in a lifetime of consequences. Peer pressure may cause emerging adult drivers to take risks such as a simple nudge to take a selfie while driving. Albeit, with more passengers in a moving

vehicle driven by an emerging adult, peer pressure may increase the tendency to engage in this unsafe behaviour (Heck & Carlos, 2008). This is because young drivers seek to please their peers, 'showing off and are highly subjected to their friends' influence while passengers tend to talk more to the driver and encourage greater risk-taking (Olsen, Lerner, Perel, & Simons-Morton 2005). These actions predispose adolescents who drive with peers to more experience of distractions related to passengers and RTCs (Heck & Carlos, 2008). In congruence to this, high numbers of passengers are connected with higher tendency to a crash (McEvoy et al. 2007). Hence, adolescent unsafe driving behaviours are function of peers and parents as well as culture and the media, (Keating, 2007).

Parents and other family members may wield both positive and negative influence on teen and emerging adult drivers' attitudes and behaviours relevant to driving safety. This is because they are particularly susceptible to peer influence (Steinberg, 2004). Undoubtedly, emerging adult drivers may also be the most likely age group to respond to peer pressure which at times may negatively influence them to get behind the wheel using a phone or conversing with other passengers. There is evidence that distracted young drivers' behaviour is related to views of friends (Gupta, Burns & Boyd, 2016). Thus, the understanding of the role of peers in influencing emerging adult drivers concerning distracted driving behaviour is a step forward in promoting traffic safety.

Positively, peer pressure may make a difference. Young drivers who intend to make an impact and reduce the problem of distracted driving should know that it is important for their voices to be heard and need to do more positive peer pressure on someone to drive safely today. To this effect, research suggests that conversation modulation is an essential element in preventing the negative effects of conversations with drivers, instead of the physical existence of an in-car passenger (Charlton, 2009).

2.2.9: Technology and Distracted Driving Behaviour

Keeping young drivers' phones out of reach may not bring about a lasting solution to prevent the use of phones behind the wheel. By human nature, a young driver might have been conditioned to respond to the ringing phone even when driving because the driver feels influenced by friends and loved ones.

In a world overwhelmed by information, divided attention resulting from use of mobile phone is believed to be more than it can be envisioned. For instance, some countries, mobile use while driving is banned but "infotainment systems" another form of unsafe driving technique is allowed (Homes & Alaniz, 2019). To this effect, it might seem unusual that the key to averting distracted driving is technology that is the root cause of the problem (Dyton, 2019).

Nonetheless, technology may not only be the major reason behind distracted driving but also may present the solution (Wallace, 2016). In this direction, it might be used to a teenage driver's advantage to prevent him or her from using the phone while driving. For instance, prevailing tech apps can be downloaded onto a teen driver's mobile phone which inevitably blocks him or her from texting while driving. Evolving technologies such as car automation features may also help prevent distracted driving with features such as lane-departure warnings to caution the driver and may serve to reduce distracted-related road traffic crashes and encourage lane discipline (Consumer Reports, 2017). Hence, such features may also be used to reduce distracted driving behaviour (Wallace, 2016).

Further to this, autonomous technology might have made driving safer and less challenging, yet drivers' attention may be diverted to other activities by encouraging other forms of unsafe driving acts. To some extent, striking a balance between technology and the behaviour of the driver behind the wheel is essential (Stenquist, 2019). Mobile phone blocking apps that not only prevent calls or texts from coming through while behind the wheel should be encouraged among young drivers.

On one hand, automobile manufacturers may have satisfied the interest of parents who are keen to encourage teens- safe driving behaviour through the development of products that

stop or reduce a driver's ability to use a phone behind the wheel. For instance, Drive ID manufactured by Cell control may be helpful to parents because of its ability to lock their teen's mobile phone while driving (Wallace, 2016). Also, an electronic device for tracking location, detecting road traffic crashes and guiding parents about contacting their teens to prevent parents from being part of the problem (Consumer Reports, 2017).

In addition, Origosafe's solution via its Bluetooth connectivity makes the phone to be accessible to the driver after being locked before the start of the engine. Thereafter, the driver can use his/her phone (Trucking info, 2012). Similarly, MyKey- another app by Ford Motor Company that blocks incoming calls as well as text messages (Edmunds, 2015). Even though certain technology may help keep the teen driver in control of what he or she does behind the wheel, it must however be stated here that the sole reliance on technology to prevent teen distracted driving behaviour should not be encouraged (Dyton, 2019).

To combat the overwhelming rate of unsafe driving behaviours-crashes involving young drivers, public education and awareness efforts are also on the frontline through mobile phone manufacturers, including AT&T. In addition, driving school students are to be exposed to the road traffic crash statistics. Despite professionals reaching a consensus that these efforts are major aspects of the solution, striking a balance between drivers controlling their behaviour or unsafe driving behaviour remains a challenge (Edmunds, 2015).

Technology that allows the driver via its Bluetooth connectivity to use a phone behind the wheel may cause cognitive distraction where mind is somewhere else (Consumer Reports News, 2012). Further, the report stated that it tends to impair driver performance as well as increase driver distraction-related crashes and as such, a threat to road safety. Also, there may be phone compatibility issues because some systems provide no way to respond to texts by voice and battery drain, a common challenge that may make the driver charge the phone while driving. As such, preventing young drivers from using mobile phones behind the wheel should not be solely technologically driven.

In others words, education is the most ‘evergreen technology that may be used to produce the desired change that is needed to prevent distracted driving. Teaching young drivers how to safely drive defensively should be the priority instead of relying on technology to provide answers to the problems created by technology. Notwithstanding, in using technological solutions to tackle distracted driving behaviour among young drivers, electronics should be used sensibly; they should text when they have safely parked; stay focused on the primary task of driving and parents should be good models of a safe driver to their emerging adult drivers. Our shared responsibility is to make phone use behind the wheel as socially unacceptable as drinking and driving.

2.3. The Role of social media in Distracted Driving among Teen Drivers

Social media is a digital technology that enables interactions among individuals in such a way that they create text/image, share ideas and information through virtual networks and communities. Mobile phone gives access to social media such as Facebook, Instagram, YouTube and Twitter accounts. Imagine these activities taking place during a traffic peak period: a teenager driving from hostel to faculty, fitting in a quick bite as he drives, and searching for a good song on the radio. In addition, he has every intention of being a well-mannered, law-abiding driver. Then his mobile phone rings, or maybe he gets a notification from an app and decides to pick up the call or glance at the notification. Perhaps, he may think that he has the ability to cope with multiple tasks simultaneously without any loss of concentration. However, there is no justification for scrolling, swiping, typing or otherwise engaging in any form of distracted driving behaviour (Winkle, 2020).

All these distracting activities may impact his safety as well as others because driving requires attention, coordination, and split-second decision making which must not be compromised for anything. In other words, anticipating other drivers’ behaviour, being focused and ready to respond to road conditions, and unforeseen circumstances are all very important. Texting, an integral part of use of the phone, are all promoting risky behaviour (Friedman, 2020). According to the previous study, the social networking sites most commonly used by teens while behind the wheel. Also, drivers are distracted not

only through texting but also by surfing the web, video chats and taking selfies (Zuckman & Beck, 2012).

However, the most dangerous distracted driving activity is believed to be texting. Despite teen age drivers acknowledgement of the danger involved in distracted driving behaviour, the need to socialize with their friends was accountable for their distracted driving behaviour. Hence, the young generations have accepted social media platforms to socialize, team up and learn informally and flexibly (Nofal, 2013). To engage in distracted driving behaviour, it is believed that such driver has failed the primary duty of operating vehicle in a way that driver's safety, as well as that of other road users, is not compromised. With this level of distraction, the driver may consequently flout the traffic regulations and become a threat to other road users. In addition, social media use behind the wheel is adding to other mobile phone driving distractions that have emerged.

In other words, drivers' relationship with phones, and a five-inch screen while driving has changed with social media use behind the wheel. This is because social media use behind the wheel will make the driver's attention to be focused on the small screen instead of concentrating on the road through the big screen. It must, however, be stated that periodic scanning of the road through rear or side view mirrors to check for approaching vehicles or other hazards may decrease the threat of a crash or enhance safe driving behaviour if the driver's attention is not divided behind the wheel.

Distracted driving behaviour apart from being deeply-rooted behaviour, its consequences to road users are very difficult to eradicate (Moore, 2019). This unsafe behaviour behind the wheel has become so pervasive because a driver may not only be distracted when posting behind the wheel but also when taking that post-worthy photo in motion. In addition, activities such as reading Facebook updates behind the wheel, tweeting about traffic conditions, sharing photos on Snap chat while in motion, taking a selfie behind the wheel and posting a sunset photo taken from the driver's seat to Instagram are dangerous trends that virally spread on social networks which are possibly appealing to several young viewers who may also try the same while behind the wheel. One of the several negative impacts of social media on driving is its user's obsession with promoting distracted driving habits which are not limited to but include those that could result in

injury or death (Digital, 2016). In other words, this is another unsafe dimension of this modern technological landscape. As such, it is believed that more anti-distracted driving campaigns are needed.

For instance, young drivers are more prone to social media use behind the wheel, especially use of Snap chat was found to emerge as the most common social media application of ages 17-25 years (Truelove, Freeman, & Davey, 2019). Laura Adams aptly sums up the danger of distracted driving behaviour: “we are in an ever-growing distracted driving crisis, and the consequences are deadly”. Hence, unless more proactive steps are taken to curb this ‘deadly addiction’, road traffic crashes caused by social media users are expected to increase in the nearest future.

In tackling distracted driving behaviour, Dr Winsten advocated that drivers should be actively engaged through glancing at their mirrors every five to seven seconds. Although enforcement is part of the solution, tackling distracted driving behaviour through it is not only intermittent but also a known practice that has offered slim chances for the erring driver to be caught (Moore, 2019).

2.3.1: The Gender behind Young Driver's Distracted Driving Behaviour

The gender behind young drivers’ distracted driving behaviour may be described as the specific ways in terms of a male or a female driver engage in use of mobile phones behind the wheel. Certainly, five seconds of inattentive driving occasioned by a distracting activity such as sending a text message in a vehicle going 55 mph would have made such a car to encircle a football field and consequently compromise road users’ safety (Duhl, 2017). Research suggests that the behaviour and attitude of drivers are generally not the same because they are always faced with different risk factors. In addition, young female drivers had more crashes at intersections and collisions with pedestrians due to distracted driving behaviour. Further to this, young males were found to show more aggressive driving behaviours in the evening and at weekends (CBS News, 2014).

Hence, this knowledge may tend to help put in place measures to promote road safety attitudes. Expectedly, there may be gender dynamics among emerging adults which may

influence risk-taking. For instance, a study revealed that whenever there was male passenger, young female drivers' crashes were as a result of distracted driving behaviour whenever there was a male passenger while aggressive driving is the most common behaviour triggering distracted driving of a young male drivers (Khazan, 2014).

There is extensive evidence to show that males are significantly more at risk in relation to distracted driving behaviour across United States, Europe, Asia and Africa (The Social Issues Research Centre, 2004). This has become a major public health issue (Ludivine, Marie-Axelle & Thémis, 2014). Further, revealing a vulnerable population, distracted driving behaviour is unduly widespread among younger age groups and males (Ducey, Malave, ZahediI, & Bidaisee, 2018).

In this line of thought, men are somewhat more likely to talk on the phone as well as text while driving (Safe Driving Report, 2020). Further to this, male drivers reported a significantly higher crash rate (Bener & Crundall, 2008; Holland, Geragty, & Shah, 2010). In congruence with the above, young male drivers associated more with road traffic crashes (Al-Balbissi, 2003; Özkan & Lajunen 2006). The current traffic safety culture in Nigeria may attest to the high rate of distracted driving behaviour and its attendant effects (Uzondu, 2020). This is because men and women display different driving behaviours, risk-taking and tendencies toward distracted driving behavior (The Social Issues Research Centre, 2004). Thus, male drivers are more distracted than female drivers among the sampled population in Port-Harcourt, Nigeria (Emenike & Kanu, 2017).

2.3.2: The Driver's Age and Inexperience

Turning 18 is believed to be an exhilarating event because it allows teens and young adults to apply for a driving permit. As a driver's licence officer (DLO), that issues driver's licence to the motoring public, in the course of issuing temporary driver licences to some young adults who spent their entire adolescence waiting for the moment they turn 18 and legally become adults, it may be stated here that adulthood brings with it not only a sense of independence but also entitlement. In other words, it comes with the freedom and control over the act of driving which may still be new to them and which goes beyond merely being able to move the car.

In term of gender, the rate of road traffic crashes are more in men than women; experienced drivers are less prone to “single accidents” than young drivers as well as hit other car from behind (Akhmetshin, Kovalenko, Yavkin, Shchetinina, Borodina, & Marochkina, 2018). Driving inexperience is closely associated with the driver’s age (Alfonsi, Ammari, & Usami, 2018). Many factors are also attributable to the high unsafe driving behaviour in term of social factors: when and how often they drive (Bates, Davey, Watson, King, & Armstrong, 2014).

In addition, young drivers are highly prone to severe injury if they are distracted by their mobile phones (Neyens, & Boyle, 2008). Certainly, any form of multi-tasking, which includes but is not limited to texting and making calls may pull drivers' attention away from the road, no matter their age. Aply, inadequate driving skill may young drivers to be more prone to road traffic crashes (Freydier, Berthelon, & Bastien-Toniazzo, 2016). Among the driving risks believed to be more profound among emerging adults is this unsafe driving behaviour such as talking and text messaging. Other risky driving behaviours are violating traffic rules; driving at night, excessive speeding, and tailgating. Hence, inexperience is regarded as the primary reason (Young Driver Fact base, 2009). In addition, inexperience enhances tailgating and the probability of road traffic crashes (Alfonsi et al., 2018). Young drivers are not only to value their lives but also that of others by being alert, focused and concentrated on the driving tasks for them to be more responsible and safer drivers on the road. The first year of driving is germane to safe driving behaviour.

Distraction while driving is not just a risk factor but also affecting the likelihood of road traffic injuries (Obarisiagbon, 2017). Presumably, young drivers usually make themselves available to various social media and technology regardless of their situation and respond promptly to the ‘ring’ or ‘beep’ of behind the wheel. We are in the world of modern technology and the youth are believed to be more distracted now than ever.

Perhaps, this modern technology is causing a great driving distraction, through reaching for a phone, dialing and texting the risk of road traffic crash may be aggravated. Further to this, this unsafe behaviour is believed to compromise the safety of other road users. To this end, previous study has not only associated lack of experience of novice drivers,

especially young driver to road traffic crash but also with being fined for a traffic violation (Alfonsi et al., 2018).

Probably, this unsafe habit may have been learnt from observational experience in terms of seeing their parents or other adults allowing themselves to be distracted behind the wheel. Such unsafe behaviour may compromise the safety of other road users. However, this behaviour may not be limited only to 18 -25 years of drivers but also to other age groups or driving experience. Irrespective of the driver's age or experience, mobile phones or any form of distraction should be detached from while driving.

For instance, young driver were made to perform a simple driving task by following a lead vehicle. Both young and old drivers were affected by this aberrant behaviour, in terms of the brake reaction times (Strayer & Drews, 2004). Consistent with previous studies on teenage drivers, higher crash rates were recorded by younger drivers (McCarty, Mayhew, Braitman, Ferguson, Simpson, 2009). Thus, in response to additional cognitive demand, risk reduction should be embraced by drivers (Liu, 2011). Young drivers with two- or three-year experience may still be categorized as inexperienced and need to drive responsibly. In addition, the driving experience is pivotal to the development of a guide to safely direct attention away from other events that are irrelevant (Alfonsi et al., 2018). Young drivers should be able to take responsibility for their actions and think about the consequences of their unsafe driving behaviour.

In spite of law regulating this unsafe driving behaviour, to reduce it, all these efforts may be futile unless driver's especially young ones are willing to be responsible drivers. The false belief or "it will not happen to me mentality" when replying to a text, or answering a phone call when driving, not realizing that sometimes a text or a phone call is all it takes to crash a life. When driving irresponsibly, young drivers may be oblivious to the fact that their unsafe behaviour puts their lives at risk as well as every other road user. One way this unsafe habit is to sharpen and increase the attention span of young drivers on the roads by making them more sensitive to the consequences of distracted driving through technological means.

Today, more public education on distracted driving behaviour and its (Hassani, Kelly, Smith, Thorpe, Sozzer, Atchley, Sullivan, Larson, & Vogel, 2017). This may have the potential for making actual behaviour change, promoting sustainable safe driving behaviour. In this direction, the previous study suggests that one possible way to overcome inexperience is through undivided attention on the road (Romer, et al., 2014).

2.3.3: Risk-Taking and Distracted Driving Behaviour

A threat to traffic safety is distracted driving behaviour, particularly to inexperienced young drivers who possess limited abilities to stay focused, have their impulses controlled and multitask (McDonald, 2020). Presumably, a split-second decision of texting behind the wheel may forever alter the lives others. Even though, younger drivers understood the threat the use of phones behind the wheel posed to traffic safety, but usually engaged in it because of the favourable public perception. (Kirsch, 2018).

Also, because of their ever-increasing connectedness to social media and 'fear of missing out and separation anxiety (Mc Donald, 2020; Society for Risk Analysis, 2018). The use of phones behind the wheel has not only evolved from talking into texting and engagement in social media but also is diminishing drivers' focus on assessing circumstances and perceiving certain risks associated with their surroundings and increasing the chance of a crash. As such drivers' ability to discern risk may be needed to fully address risky behaviour because knowing how and why individuals engage in risky behaviour may be of help in producing messaging and road safety education programs that promote traffic safety.

The issue of distracted driving behaviour is increasingly becoming an area of great concern for traffic safety professionals especially concerning young novice drivers (Palamara, Molnar, Eby, Kopinanthan, Langford, Gorman & Broughton, 2012). Divided attention involving this aberrant behaviour is a global challenge that requires urgent attention (Kirsch, 2018). Young drivers' involvement in road traffic crashes is receiving much attention and will receive more with a growing awareness of driving distractions such as talking on mobile phones and text messaging. Hence, understanding why young

drivers engage in this non-desirable driving behaviour may be germane to the development and implementation of proper countermeasures.

On one hand, a previous study revealed that drivers are susceptible to this aberrant driving behaviour are aware of the inherent risks (Walsh, White, Hyde, & Watson, 2008). On the other hand, another study reported that young drivers deliberately accept more risks than the older group who are more experienced (Deery, 1999). In other words, proneness to risk-taking behaviour which includes but is not limited to distracting tasks are more profound with young drivers (Donmez, Boyle & Lee, 2010). Further to this, researchers also reported that a risk perception is positively related to this aberrant driving behaviour (McNally & Bradley, 2014). Hence, it was suggested road traffic crashes due to the use of phones behind the wheel are more common among young drivers (McEvoy, Stevenson, & Woodward, 2006).

Additionally, a related study, young drivers were found to be deficient judgment essential for safe driving behaviour (Gershon, Ehsani, Zhu, Klauer, Dingus, & Simon- Morton 2018). In other words, younger drivers manifest greater risk-propensity than older drivers (Fernades, 2009). Undoubtedly, one of categories of reckless driving is risk propensity which is also a key contributing factor to road traffic crashes is distractions. (McNally & Bradley, 2014). Nonetheless, there is a strong consensus that distraction is harmful to driving (Kircher, 2007). It is believed that young drivers are not only inexperienced but are also prone to greater risk-taking.

Unequivocally, a previous study suggests that the activities of the frontal lobe of young drivers' brains make them highly susceptible to this aberrant driving behaviour (Moleni, 2010). However, older drivers perceived this aberrant behaviour as riskier than young drivers and this tend to make young male drivers have a greater susceptibility to a road traffic crash (Palamara et al., 2012). Further to this, a previous study suggests that risk-taking behaviour is traceable to parental' driving behaviour and driving supervision (Prato, Toledo, Lotan & Taubman-Ben-Ari, 2010). In addition, risky driving and traffic convictions are predominantly found among young male drivers (Voogt, Day & Baksheev, 2014). In this direction, it was also suggested that risky driving may be socially inclined due to its short rate when adult passengers are present (Simons-Morton, et al., 2011).

In addition, risk-taking attitudes among young drivers were linked with proneness to distracted driving behaviour (Moleni, 2010). Researchers have differentiated the study of young driver risk-taking based on the types and incidences of on-road behaviours (Palamara et al., 2012). Hence, young drivers who are highly prone to risky driving are having challenges with school adjustment (Vassallo, Smint, Sanson, Harrison, Harris, & Cockfield, 2007). Although personality factors cannot be changed but may be used to as a guide for regulating young drivers' risky driving behaviour. As such, the complex young driver situation can be addressed using a multilevel, comprehensive measure and not any single, simple approach (Shope & Bingham, 2008). To reduce the risky behaviours among young drivers, the three most profound interventions are: parental involvement, education and training (Palamara et al., 2012).

To stem the tide of the use of phones behind the wheel that is not only believed to be seemingly common among young drivers but also widely believed to increase young driver's risk, high visibility enforcement and crash avoidance technology will serve as broader countermeasures that prevent distracted driving (McDonald, 2020). Also, profiling, especially, individuals that are novice drivers, who are addicted to their phones in order to develop messages that will help them unlearn this aberrant driving behaviour will go a long way (Society for Risk Analysis, 2018).

2.3.4: Risky Driving Behaviour and Road Traffic Crashes

The crucial elements of road crashes in southwestern states of Nigeria are human, vehicle, environmental and roadway characteristics (Aworemi, Abdul-Azeez, & Olabode, 2010). Distracted driving, a human factor, is believed to be a growing problem in the Ibadan metropolis and Nigeria at large. Notably, unsafe driving behaviour has made young drivers to have unequal representation in road crashes (Adeola & Gibbons, 2013). In this sense, driving distractions were key pointers to this aberrant behaviour (Sabaté-Tomas et al., 2014). Some of the risk behaviours that young and emerging adults engaged in within a metropolitan city in Nigeria were: tailgating, aggressive driving, speeding, nighttime driving, and distracted driving - drinking, eating, texting, and making or receiving phone calls (Obarisiagbon, 2017).

For instance, in a study of 431 participants: within the last 12 months, 10.7% had been involved in drunk driving, 63.7% accountable for making phone calls was the most profound risky behaviour while sending text messages was 26.1%; driving against traffic was 49.2% and non-use of seat belts was 46.8%. In light of this, alcohol use was closely linked with distracted driving behaviour (Abayomi, Babalola, Olakulehin, & Ighoroje 2016). Indisputably, this aberrant driving behaviour intensifies the risks of road traffic crashes (Densu, 2014).

In this light, a previous study found a relationship between distracted driving behaviour and road traffic crashes (Olapeju & Olasisi 2016). Even though risky driving behaviour is multi-faceted, one of the determinants and the significant predictors of the use of phones behind the wheel is attitude (Oviedo-Trespacios, King, Haque & Washington, 2017). Nonetheless, many studies, have made an effort to clarify individual differences via attitudes in relation to risky driving behaviour because personality largely affects risky driving behaviour through the attitudinal determinants of the behaviour (Safety Science, 2003).

The driving force behind an intentionally risky driving behaviour is a function of the attitude over distracted driving behaviour. Further to this, the driver's attitude deciphers into knowledge and non-desirable driving behaviour (Saba & Rahimi-Movaghar 2014). In a related study, risky driving behaviours and job stress were positively related (Oyeleke, Bada, & Ajibewa, 2016). In addition, it was found personality factors: conscientiousness, extraversion, openness to experience and agreeableness predicted risky driving behaviour (Akinniyi, et al., 2019).

In this direction, personality features such as susceptibility to peer influence have been discovered to contribute to risky behaviours (Weston, 2015). With the knowledge of the risk involved in this aberrant behaviour, drivers had preference talking on phone than for texting (Atchley et al., 2012). However, their awareness does not reduce their proneness to text while driving. In other words, they actively engaged in distracted driving despite its potential risks. Individual differences concerning risk perception may be a factor to be considered in this direction.

The role of perceived attachment to phones cannot be over-emphasized in distracted driving behaviour. For instance, a young driver who is strongly attached to his phone might be more susceptible to it even when driving. Such attachment toward his phone may not only predict the proportion of his involvement that a young driver reports using his mobile phone while driving. (Weller, Shackelford, Deckman & Slovic 2013). Even though young drivers perceived distracted driving behaviour as risky driving behaviour in a study, there was still a high level of texting while driving. Hence, age, driving experience and their perception of texting and driving as risky were found as predictors of proneness to distracted driving behaviour (Olukoga, Anyanwu, Peters, Tewari, Oyesola, & Osungbade, 2014).

Distracted driving behaviours had been acknowledged as contributory factors to road traffic crashes and injuries (Obarisiagbon, 2017). Further to this, it also results in high motor insurance premiums due to their poor safety records (Association of British Insurers, 2012). In other words. When the young driver's poor safety records improve, the risk they pose to an insurer decreases as well as the insurance premiums decrease. Hence, reducing distracted driving behaviours may require insight into phone attachment (Weller et al., 2013). Also, more emphasis on the risks of distracted driving behaviour should be a necessity while its perceived benefits reduced (Whit, Hyde, Walsh & Waston, 2010). Further to this, there is a need for a formulation of safe attitudes and re-engineered (Oviedo-Trespacios, King, Haque & Washington, 2017).

To stem the tide of this aberrant driving behaviour, an upward review of the fine of the penalty for this traffic offence (from N 4,000 to N 20,000) was suggested for a more effective deterrent (Olapeju & Olasisi 2016). In addition, credible agents of socialization are needed for enlightenment campaign programmes tailored towards creating awareness of the negative consequences of distracted driving behaviours to young and emerging adult drivers. Also, law enforcement agents especially Federal Road Safety Corps should be more proactive by ensuring that only young drivers that are duly licensed are allowed to drive on the roads (Igboanugo & Onifade 2013; Obarisiagbon, 2017).

2.3.5.: The Impacts of Voluntary and Involuntary Distracted Driving Behaviours on Road Safety

It is believed that some benefits are derivable from the use of phones behind the wheel. In this direction, previous research on this unsafe behaviour behind the wheel indicated that mobile-phone engagement is associated with positive attitudes because drivers linked the aberrant behaviour to opportunity to maximize ones' time (Walsh et al., 2008). Two such benefits derivable from such unsafe driving behaviour is reinforcement of social networking and expansion of productive time (Beckman, 2020). However, it is hard to be ignorant of the explosive growth of this aberrant driving behaviour and its attendant negative effects- increase crash risk and its unintended consequences on road safety. Nonetheless, the use of phones behind the wheel is an avoidable as well as preventable behaviour within the reach of drivers.

Further to this, the evolving nature of distraction's source from voluntary to involuntary would also be considered. When a driver decides to voluntarily divert attention toward picking a ringing phone, he will have some allowance to self-regulate his driving activity as well as maintain situational awareness (Regan, Halletta, & Gordon, 2011). The driver's willingness to be distracted behind the wheel is a decision taken by the driver to combine lifestyle issues with professional issues (Rose, 2016). The dyad nature of the driver's distraction is voluntary (making a phone call) or involuntary (ringing the phone). In other words, voluntary distraction is initiated by the driver which allows him to alter the driving behaviour at the expense of being distracted while the origin of involuntary distraction is not from the driver and may not have the opportunity to compensate for being distracted (Dahlstrom, 2019).

In other words, the driver's distraction may occur voluntarily or involuntarily. For instance, a mobile phone that suddenly rings inside a moving vehicle invariably diverts attention away from driving. This and many more unvaryingly compel drivers involuntarily to divert their attention away from driving. Generally, such stimuli may be unpredictable, unexpected, or sudden and are not initiated by the driver but tend affect his driving focus (Stutts et al., 2005). In this direction, the previous study suggests that distraction could be traceable to the source, the location, the intentionality, the process,

and the outcome (Lee, Young & Regan, 2008). Notably, while examining driver's intentionality in this present study, a driver may involuntarily attend to an external distraction source unintentionally or voluntarily engaged with the distraction- intentionally (Hoekstra-Atwood, 2016).

A previous study revealed that through compensatory behaviours (deceleration and raising mental efforts), there exists a gap voluntary and involuntary distractions. Specifically, compensatory behaviours (deceleration and raising mental efforts) are more noticeable with involuntary driving distraction (Shi & Zhou, 2017). Also, when engaging in voluntary distraction drivers are conscious of their behaviour. Unlike the while involuntary distraction effects, they seem to be less conscious (Hoekstra-Atwood, 2016). In this direction, such inattention crashes usually take place when it involves a right turn and at intersections in metropolitan areas (Wundersitz, 2019).

Further to this, a previous study reported that drivers have the perception that mobile phone applications may decrease distracted driving but they also wanted to have access to some apps in order to interact with individuals who they had strong social ties with (Oviedo-Trespacios, Vaezipour, Truelove, Kaye & King, 2020). The use of phones while driving, either voluntary or involuntary should be seen as a shared responsibility among all road safety stakeholders.

Having road sense in avoiding distractions may be the sign of a true professional driver and a model for all drivers. Distraction, either voluntary or involuntary, creates room for higher risk (Rose, 2016). Hence, a distracted employee driver is an indicator of a business-wide challenge (Brownyard, 2018). For instance, in a case of a fatal road traffic crash by an employee's distracted driving that resulted in another driver being killed, the family may bring a wrongful death suit against the distracted driver's employee. Peradventure, if an organization did not have a policy in place prohibiting this aberrant driving behaviour, it may result into lawsuit and be liable. Consequently, the company may lose the trust of their clients as well as dent the company's reputation as a result of the employee's negligence. As such, a corporate organization may be held responsible for an employee's irresponsible driving behaviour (Brownyard, 2018).

Both involuntary and voluntary affect braking response (Chen, Hoekstra-Atwood, & Donmez 2018). Addressing distraction is a herculean task that may not only trigger a wide range of behavioural factors but also environmental factors (Hawkes, 2019). In tackling the menace of voluntarily implemented distractions by drivers, mobile phone apps are steps in the right direction (Oviedo-Trespa, King, Truelove, & Kelly, 2019).

It must also be pointed out that the same source of driver's distraction may give rise over time to both voluntary and involuntary distracted driving behaviour. For instance, the involuntary diversion of attention when a mobile phone rings, may lead in turn to voluntary distraction when the driver looks for the phone, pick it up and answer the call. In other words, there is the possibility for distracting activities to evolve, from one form of engagement to another. Hence, it is imperative to promote apps that are credible and align to vehicle/driver's safety (Oviedo-Trespa et al., 2019).

2.3.6: External Distraction: Billboard and Safe Driving

Billboard either electronic or traditional is a form of visual distraction that appeals to and captivate the attention of drivers from the road. Electronic billboards are often situated along highways as well as majors' thoroughfares within Nigeria metropolitan cities and because of their strong appeals, drivers are highly susceptible to divided attention. It is indeed a form of external distraction that takes place outside the vehicle. Further to this, roadside billboards are threat to safe driving because some of them are huge, eye-catching advertisement that are inimical to driver's attention behind the wheel. They tend to compete with driver's attention on the road because they are designed in such a way that make them irresistible to ignore.

Electronic billboards (powered by electricity) and digital billboards (the nature of display they have) are virtually the same in the sense that they are believed to unreasonably hold drivers' attention long enough to pass a message. All drivers of all ages are believed to engage in distracted driving behaviour. Hence knowing more about the possible mechanisms associated with distracted driving behaviour is desirable. As such, the rising trend in the extant literature concerning digital billboards is signifying that roadside

advertising has the tendency to increase distraction and its attendant effects (Oviedo-Trespalacios, Truelove, Watson & Hinton, 2019).

Obviously, there are many campaigns awareness tailored towards reduction of driver's distraction within the vehicle but that of outside the vehicle should equally be tackled especially indiscriminate erection of roadside billboards to prevent them from being hazard to driver's focus. Hence the driver's eyes and mind should be kept on the road. It is undoubtedly that the use of electronic billboard advertising will be on the increasing. However, it is worrisome that the movement on an electronic billboard is not only more distracting for drivers but also it could lead to a rise in road traffic crashes. Hence, the erection of electronic bill boards should be discretionally carried out while prohibition of such should be placed on some locations.

Billboards are believed not only have effect on the driving tendencies but also take driver's attention away from the road. In spite of being recognised as a potential source of distraction, the attention giving to it is less compare to other forms of distraction – use of phone behind the wheel. Consequently, billboard location as well as it displayed content have the tendency to increase driver's reaction's time while decreasing his ability to control the vehicle (Sorum & Pal, 2022). As such, there is need to more know on its impact on road safety in order to support policy decisions in this direction.

2.3.7: Behavioural Economics and Distracted Driving Behaviour

Behavioral economics is an aspect of psychology that deals with the steps involved in economic decision- making of individuals and organizations. It postulates that human beings are irrational and not capable of making good decision. This school of thought is drawn from psychology and economic to investigate why unsafe decisions are taken not undermining that the fact that human being can be easily distracted. For instance why will a driver go for unsafe driving behaviour at the expense of safe driving behaviour? In other words, if an individual wants to drive a vehicle and is equipped with defensive driving techniques, such an individuals will not want to engage in aggressive driving. However, behavioral economics state that such a driver whose mind is on safe driving, his final behaviour may be determined by cognitive bias and social influences. In this sense, a

previous study reported that drivers were prone to use of phone behind the wheel when the sender has strong social attachment to the driver (Foreman, Hayashi, Friedel, & Wirth, 2019).

In addition, it is the collective responsibility of all road users to make road safer for all. Aply, this is goal is believed to be achievable in the easiest way through behavioral economics. Perhaps behavioural economics and normative economics is widely believed to be interwoven -related. However, in bringing down the level of varying and self-destructive behaviour in several situations, behavioural economics has proven to resourceful tool (Kenton, 2020). The concept is not only helpful for knowledge and prediction but also for the assessment of demand for social interaction in relation to this aberrant driving behaviour (Hayashi, Friedel, Foreman, & Wirth, 2019). Hence, driver's distraction can be better studied in the context of behavioral economics as well as use to explain distracted driving behaviour while providing insights for solving it

2.3.8: Risky Driving Behaviours, Personality Factors, and Young Drivers

It is believed that young driver is a complex and uncertain individual who may be prone to different driving characteristics in different driving situations. In ta his direction, it was suggested that risk propensity directs both the actual and perceived characteristics of the situation as a determinant of risk behaviour (Sitkin, & Pablo, 1992). One of the major causative factors of the increasing number of road traffic crashes is risky driving behaviour (Atombo, Wu, Tettehfiio, & Agbo, 2017). Risky driving behaviour is a multi-facet dimensional subject that any effort to design and establish amendment policies should be grounded on a wide-ranging understanding of its determinants in difference aspects (Jafarpour, & Rahimi-Movaghar, 2014). Despite the universality of risky driving behaviour, there is a rarity of information about the level and factors influencing unsafe behaviour among young drivers in the Ibadan metropolis, southwest, Nigeria.

Risky driving behaviours are not limited to: speeding, crossing a red light, dangerous overtaking, and use of mobile phones while driving but in this study, the use of phones behind the wheel is of interest because not only does the risky behaviour of drivers on the road influence physical health but also the personality (Saei, Rahmani, Ebadi & Khankeh, 2017). In this direction, the previous study found that texting while driving among

adolescents remains high and drivers that are texting while driving are prone to other risky driving behaviours (Yellman, Bryan, Sauber-Schatz & Brener 2019).

A previous study on measuring risky driving behaviours among young drivers found using a mobile phone for calling, texting or chatting as a behavioural predictor for crash involvement among young, especially in cases where the at-fault driver is alive (Al Reesi, Freeman, Davey, AlAdawi & Maniri 2018). Young drivers' attachment to their mobile phones may be a significant but unnoticed risk factor for involvement in unsafe behaviour. As such, the knowledge that phone attachment may harmfully affect driving behaviours has the potential to guide anti-distracted driving strategies to reduce this aberrant driving behaviour among young drivers (Weller, Shackleford, Dieckmann & Slovic, 2013).

Based on an assessment, of the effect of personality factors on risky driving behaviour, the intention has not only been found to be a vital variable but also gives a better understanding of determinants of factors underpinning intention and attitude toward unsafe driving behaviour which may eventually reduce the behaviours and reduce the risk of road traffic crashes (Atombo et al., 2017). Accordingly, young drivers tend to display risk-taking factors of personality (Furnham & Saipe, 1993). In addition, those drivers scoring high on the risk-taking factor are identified as a young males, have fewer years of driving, and have more driving offences, thrill, adventure seeking, boredom susceptibility and have higher young male stoicism. Young drivers are at significantly greater risk of road crash involvement, especially males (Lancaster, & Ward 2002). Further to this, a male driver has the propensity to view traffic situations as less risky compared to female drivers (Glendon, Dorn, Davies, Matthews & Taylor 1996). Nonetheless, the previous study indicated profoundly that youth do not respect traffic laws. (Ramisetty- Mikler & Almakadma, 2016).

In addition, a previous study found that personality traits are significantly related to both risky driving behaviour and road traffic crash involvement (Yang, Du, Qu, Gong, & Sun, 2013). In other words, a driver's personality is viewed as an effective predictor for risky driving behaviour and road traffic crash involvement. Similarly, personality traits had direct effects on risky driving behaviours and produced indirect effects on crash risk mediated by risky driving behaviours (Zhang & Qu, 2017). Furthermore, it was suggested that a blend of traits, demographic variables (i.e., gender), and behavioural variables (i.e., number of miles driven) affect the enduring propensity of young drivers to engage in

distracted driving (Bone & Mowen, 2006). In this direction, a previous study found risk-seeking traits, how voluntary the task was perceived, and previous exposure to a distraction influenced young drivers' engagement in distracted driving behaviour (Rupp, Gentzler & Smither 2016).

In the same vein, it was found that the extraversion trait of personality to predict negatively driving errors of commission, distraction and driving errors of omission while Job stress is positively associated with distraction in driving and other risky driving behaviour (Oyeleke, et al., 2016). In addition, researchers linked extroversion with the frequent use of phones behind the wheel is extraversion due to their constant communication with others, they are more likely to spend time making a call and sending text messages while behind the wheel to maintain their relationships, compared to more introverted individuals (Butt & Phillips, 2008).

It is commonly understood that individual differences not only play a role in risky driving behaviour among young drivers but also that some young drivers have more tendency to exhibit risky driving behaviour than others. In this light, it is reported that certain personality characteristics such as risk-taking, thrill-seeking, impulsiveness and external locus of control are related to unsafe driving behaviour and road traffic involvement (Lancaster, & Ward 2002).

In other words, certain personality characteristics were linked with increased risk while participants with an internal locus of control were found to have a lower perceived risk than those with an external locus of control. Further to this, a previous study proved that extraverts committed more violations than introverts as well as stated that extraverts may be less bound by society's rules (Elander, West, & French, 1993). In light of personality, it was discovered that participants who had an internal locus of control displayed a lower degree of perceived risk than those with an external locus of control (Alm & Lindberg, 2000). Thus, a better understanding of these individual differences may give room for more appropriate road safety policies tailored toward reducing road traffic crash incidents.

Further to this, it was found that those who feel that the use of a phone behind the wheel is acceptable are prone to distracted driving behaviour (Riquelme, Al-Sammak, & Rios, 2010). As such, individual attitudes towards the use of phones behind the wheel are also important predictors of distracted driving behaviour. In this direction, it was also found a

greater frequency of texting while driving is most strongly related to greater risk-taking for public safety. Also, a previous study found attitudes and risk perception to have a significant impact on the causes of road traffic crashes as well as on general driving behaviour (Olufikayo & Grace, 2014). This is because the perception of risk has a significant impact on road traffic crashes. Hence, enhancing, young drivers' perception of the risk, through public enlightenment and training have the tendency to potentially improve the traffic safety culture. Additionally, understanding the underlying risk behaviour apart from identifying psychological mechanisms may be key for more effective prevention and intervention programs.

On one hand, found family and peers to be the most influential factors in identifying what may have been the strongest influences in establishing the risk profile among university students (Sabaté-Tomas, Sabatés, & Sala-Roca, 2014). In other words, high-risk drivers had similar reckless driving behaviour traceable to their parents while low-risk drivers have the matching attitudes to road safety as their parents had. On the other hand, it was discovered that driving schools were the strongest protective factor in preventing the appearance of risky driving profiles. Further to this, formal driver training may improve risk consciousness and encourage road safety attitudes in young drivers. As such the actions of driving schools should therefore be reinforced as they seem to be one of the main preventive factors in the emergence of risky drivers.

One may suggest that the ability of some stronger personality traits to predict distracted driving advocates that the unsafe behaviour may not be influenced exclusively by context-specific situational variables. This may tend to give hope for the possibility of developing road safety campaigns that influence drivers to decrease their distracted driving behaviour that interfere with the primary driving task. In addition, to modify young drivers' risky behaviour, several psychosocial influences such as imitation and anticipated rewards and punishments administered by parents and peers upon its roots and maintenance must be identified (Scott-Parker, Watson & King, 2009).

Further to this, parents/guardians have a vital role to play in ensuring that emerging adult drivers gain valuable driving experience as well as safely guide them by rules and expectations that prevent them from engaging in risky driving behaviours (Yellman et al., 2019). Risky driving behaviour, as a serious public health issue would cause more road

traffic crashes while positive driving behaviours would enhance safety traffic environment (Shen, Qu, Ge, Sun, & Zhang, 2018).

2.3.9: Multi-tasking Among Workers and Distracted Driving Behaviours

Multi-tasking is the ability to work on two or more tasks at once and complete them in rapid succession. In other words, it is the ability to manage different tasks at the same time. The ability to work through distractions is an important skill needed to multi-task considering the frequent distractions professionals are faced with while working. One of such acts of multi-tasking is watching a football match on a phone behind the wheel (Smith, 2017).

For instance, in Norfolk, the dashcam footage taken by a passenger in the vehicle behind seemed to show the erring driver viewing the June 3 Juventus versus Real Madrid champion's league match on his phone while other drivers were surprised as the man drove against the traffic lights. Thus, as part of a clampdown on the use of mobile phones behind the wheel, the Norfolk Constabulary not only released the footage but also appealed for more dashcam owners to reach out to the police with evidence of the illegal use of phones behind the wheel. In other words, motorists are encouraged to come forward to report cases of the use of a phone behind the wheel since improper handling of a moving vehicle by a distracted driver on a phone may injure or kill. That text message, football match, notification or selfie is not important compared to the safety of others, as such, drivers must be aware of their surroundings, keep an eye out for distracted drivers and collectively make this unsafe behaviour socially unacceptable as drink-driving (Smith, 2017).

Every distracted driver is believed to have control over picking up or not a ringing phone but may not be able to decide the nature or seriousness of the conversation. In other words, the conversation that happens after picking up the phone may be of any sort that may greatly upset or excite the driver behind the wheel. Among the many reasons why drivers get distracted with their phones while driving includes using it out of habit, the desire to stay connected, browsing the web, and an urge to share activities online. And with the proliferation of social media and the widespread availability of phones, this unsafe behaviour is a common sight and one of the critical offences' drivers get pulled

over by the men and officers of the Federal Road Safety Corps. Drivers' phone use behind the wheel may continue to increase and the growing of offences is evidence of the risk it creates (Mccartt, et al., 2006).

It is established that almost 40 per cent of the distracted drivers involved in road traffic crashes were using mobile phones behind the wheel and also that more of such crashes occurred in the morning time (Eid & Abu-Zidan, 2017). Also, researchers suggest that lack of using appropriate safety accessories, high-speed violations, distractions as well as errors are the prime variables that determine a greater chance of serious or fatal injuries in road traffic crashes (Febres, Mohamadi, Mariscal, Herrera & García-Herrero, 2019). Meanwhile, the nature of metropolitan cities: work-oriented, as well as the availability of unlimited access to technology even behind the wheel, maybe a dangerous combination.

For instance, multi-million-dollar rulings against companies whose workers killed or injured other drivers and/or their passengers while being distracted by their phones have compelled corporations to be more proactive in instructing their workers on safe driving practices (Walter, 2012). For a busy professional, the riskiest form of distracted driving is the use of a phone behind the wheel because it pulls attention away from the road (Atlanta Personal Injury Law Group, 2020). In other words, such individuals are not fully concentrating on driving while making a substantial number of calls in the car.

Within the Ibadan metropolis, a few distracted driving behaviours such as making/receiving calls and interacting with the screen and/or buttons are believed to be more common among young drivers than those living in rural areas. This may be due to the effects of the driving situation in areas like All Motors, Old Ife Road, Challenge, Total Garden and Premier Hotel's junction, Ibadan where being stopped at red lights tends to increase these types of distracted behaviours. In other words, driving situations may play a vital role in drivers' decisions to engage in mobile phone-related distracted driving behaviours that involve looking at the mobile phone and interacting with the screen and/or buttons. Drivers of all age groups continue to participate in distracting behaviours despite their self-reported awareness of the associated dangers and their increased crash risk. This is because, they placed the immediate benefits of engaging in distracted driving behaviour over the risk involved (Edwards & Wundersitz, 2019).

Essentially, part of human working lives is the proper use of the road in form of driving at work and driving to work (European Transport Safety Council, 2015). Mobile phones first gained acceptance as a business tool in the 1980s when they were referred to as ‘car phones’ because it enables drivers to use their time on the road to communicate with others, anywhere (National Safety Council 2015). In other words, it allows drivers to continue communicating with customers and colleagues while driving. However, its misuse may result in work-related road risk as well as an incredibly high level of injury and death. Hence, using a phone behind the wheel presents an unacceptable risk to road safety (Think, 2017).

However, the tendency to multi-task has been found to be a significant predictor for individuals who engage in use of mobile phone behind the wheel (Fraschetti, et al., 2021). Workers both young and old, in several industries not only tend to spend most of their workdays on the road but also are prone to use phones while driving (National Institute for Occupational Safety and Health, 2019). For instance, a worker who is driving as well as negotiating a combative business deal over the phone may be at a greater risk of being involved in a road traffic crash. As such, a multitasking worker who conducts business while behind the wheel may not only focus less on possible dangers on the road but also the task of doing business may not get the deserved attention and consequently may contribute to road safety concerns in a significant way.

In this direction, young working individuals that are prone to the use of phones while driving have lower perceptions of risk concerning unsafe behaviour (Vij, 2019). As such, with little driving experience behind them, it is indeed worrisome to see young working individuals using their mobile phones behind the wheel and putting their lives and other road users at risk because they are less able to identify and respond to traffic hazards (Daise, 2017). Further to this, a previous study suggests that 18-29-year-olds are prone to use their mobile phones while driving as well as young working individuals are most likely to engage in this unsafe behaviour. They felt socially influenced to engage in it, involve in it because of the perceived benefits from doing it and use their phones behind the wheel to increase work productivity (Vij, 2019).

Consequently, it was found that drivers decreased their speed in the presence of more challenging driving conditions such as replying to a WhatsApp message, on curved road segments and when parked cars are present (Ortiz-Peregrina, Oviedo-Trespalacios, Ortiz,

Casares-Lopez, Salas & Anera, 2020). Also, it was found that Texting and other distracting mobile phone use among adolescents and emerging adults contribute to the high rate of fatal road traffic crashes (Trivedi, et al., 2017). Further to this, the engagement of peers in similar risky driving behaviours like texting may have a social influence on young driver phone use behaviour.

In other words, the texting behaviour of peers may impact the prevalence of texting behind the wheel among emerging adults. A previous study found that distracted driving behaviour posed a consistently higher risk for young adults and senior drivers when compared with middle-aged drivers (Guo, Klauer, Fang, Hankey, Antin, Perez, Lee, & Dingus, 2017). Nonetheless, the senior drivers got involved in fewer secondary tasks frequently than their younger drivers. Further to this, visual-manual activities performed on mobile phones affected drivers of all ages but cognitive distraction may have a larger impact on young drivers. In this sense, young adult drivers are more prone to greater risk than middle-aged adults in terms of phone-related distractions. Perhaps, driving experience and maturity may be worthy factors to be considered in how drivers manage risk. Also, it was reported that there could be the possible effects of distracted driving laws on the part of the male participants who were much more expected than female participants to advocate for using laws and legal action to discourage distracted driving as well as not change their distracted driving behaviours as a result of the use of fear appeals (Ron, Renfrow, & O'Leary, 2010).

However, female counterparts were supportive of the use of fear appeals and advocated for using interviews with individuals who had been affected by distracted driving crashes as a tool for changing the distracted behaviours of young adults. To this effect, those who are caught using their phone, especially young female drivers may be made to sit through a Road Traffic Crashes Investigation Video caused by phone use as well as speak to the family and loved ones of those who lost their lives or suffer permanent disability as a consequence.

Undoubtedly, in numerous ways, human driving behaviour and car technology are believed to be interwoven. It is, therefore, important to keep an eye on the safety side of technological developments concerning the use of phones behind the wheel, ponder on the implications for road safety practices and ensure we take important safety considerations

into account. Distracted driving may be a growing problem on today's roads but the status quo does not have to remain.

As such understanding, the great risk posed by distracted driving is a vital part of minimizing and eventually ending the problem (Distracted Driving, 2020). There is a need for young individuals to be more responsible drivers through non-participation in sending or responding to text messages on their mobile phones behind the wheel or when being stopped at the red light in traffic. Texting while driving compromises the driver's safety as well as others' and is against the law. As such, avoidance of all forms of phone-related distractions while driving may reduce the tendency of getting involved in road traffic crashes. When it becomes a necessity, the car must be safely parked.

A risk reduction effort of the employers is to outlaw the use of phones while driving because they have an obligation not only to protect their employees but also others with whom they share the roads and beyond the safety concerns, legally, employers are now being held responsible (National Safety Council, 2015). Thus, road safety campaigns targeting mobile phone use among young working individuals should emphasize the unacceptability of perceived social pressure and debunk some of the perceived benefits cited for engaging use of phones behind the wheel (Vij, 2019). Mobile phones may be seen as a corporate productivity tool, but most employers have banned the use of phones behind the wheel and such policies do not seriously affect productivity some even report productivity improvement (National Safety Council, 2015).

Employers and parents have vital roles to play regarding the safety of young drivers in ensuring that they acquire work experience under the safest conditions possible. Also, employers should ensure continued efforts geared toward keeping their workers, especially those who drive for business safe behind the wheel by placing a ban on texting and mobile phone use (Daise, 2017).

2.3.10 External and Internal Distracted Driving Behaviour

Driver's distraction may arise from visual, manual, and cognitive. As such, cognitive impairment may be when attention is decoupled from the processing of information necessary for the safe operation of a motor vehicle (Strayer, 2015). In a situation where young drivers get into their cars while driving to campus and their minds start to wander-

cognitive- internal distraction. But a case of intentional distraction such as the use of a phone behind the wheel is commonly seen as a more serious threat to the safety of road users. Mind wandering is an emerging area of drivers' distraction which starts with daydreaming and shift of attention from driving to internal thoughts which might reduce their abilities to be aware of other road users and respond rapidly to the unexpected (Frontiers, 2017).

Yet internal distraction also may be of comparable safety concern and may be described as the dissociating of attention from a driver's perception of the outside world corresponding with a change in focus to internal thought processes which could be mind-wandering-unintentional and daydreaming (Lerner, Baldwin, Higgins, Lee, & Schooler, 2015). The relationship between road traffic crashes and serious mind wandering may result from decoupling attention from auditory and visual perceptions which may make the driver tend to overlook hazards, error-prone and become a threat to safety on the roads. (Galera, Orriols, M'Bailara, Laborey, Contrand, Ribéreau-Gayon, Masson, Bakiri, Gabaude, Fort, Maury, Lemerrier, Cours, Bouvard & Lagarde 2012).

In this light, a previous study found the frequency of mind wandering to be positively linked with risky driving self-reported traffic accidents, penalty points and fines. Also, the effects of mind wandering and gender on dangerous driving behaviour revealed that male drivers reported more risky and negative emotional driving behaviours than female drivers (Qu, Ge, Xiong, Carciofo, Zhao & Zhang 2015). However, the detection, assessing, and addressing of mind wandering while driving is a herculean task which has made most of the driving-related research on distractions focus largely on the external source of distractions such as the use of phone while driving, roadside activity and passenger activity (Lerner et al., 2015). Drivers believed that mind wandering is inevitable but are not sure how dangerous it is during driving. In other words, it is believed to constitute a threat to the safety of the road since it is an essential part of human existence but also unavoidable (Frontiers, 2017). In addition, cases of mind-wandering do not establish unified and self-contained parts of the stream of consciousness (Dorsch, 2015).

Nonetheless, research on the consequences of mind wandering has produced mixed results, suggesting that it may hamper performance on tasks because it frequently has negative impacts on cognitive capacities like attention and may not be certainly harmful or increase creativity (Association for Psychological Science, 2018). To drive safe, drivers

need to be constantly aware of other road users and respond rapidly to unexpected events but mind wandering might reduce such ability (Hastingsafely, 2017). For instance, an analysis of the Fatality Analysis Reporting System revealed that the most common type of distraction linked with fatalities was mind wandering in 62% of cases compared to 12% of cases for mobile phone use (Lerner et al., 2015). Also, it was found that thinking about personal problems, chores and errands results in the most negative effects on drivers' perception of crucial changes in the traffic environment (Cvahte-Ojsteršek, & Topolšek, 2019).

There is a distinction between mind wandering, an internal form of distraction and an external form of secondary task distraction. While a previous study reveals that mind wandering is linked with speed increases (Caird, Johnston, Willness, Asbridge & Steel 2014), external distraction, such as, the use of a phone behind the wheel is linked with speed reduction (Caird, Willness, Steel Wellnessfa, 2008). The observed differences may be attributable to reduced alertness of distraction-related impairment linked with mind wandering compared to external distraction (Sanbonmatsu, Strayer, Biondi, Behrends & Moore 2015). Further to this, it may be why some estimates of road traffic crash rates attributable to internal distraction are more than those of external distraction (Young & Salmon, 2012). Nonetheless, both forms of distraction are linked with longer reaction periods to abrupt traffic events (Yanko & Spalek, 2013).

Conversely, the most understandable sources of driver distraction are external (mobile phones) and researchers have widely studied the role of distraction in road traffic crashes (Frontiers, 2017). The use of phones behind the wheel, an external distraction, is also linked with road traffic crashes (Galera et al., 2012). Mind wandering phenomenon is an attributable driving risk as well as associated with a responsibility for road traffic crashes (Gil-Jardiné, Née, Lagarde, Schooler, Contrand, Orriols, & Galera 2017). In other words, it is a risk factor for crashes and injuries and deserves more consideration because it tends to lower attention to driving tasks. In the context of road safety, this consideration may be of utmost importance.

2.3.11 Driver's Age Group and Distracted Driving Behaviour

Older adults are known for safer driving behaviours than other age groups. This is because they avoid certain driving situations and embrace driving self-regulation classes. (Bergen,

West, Luo, Bird, Freund, Fortinsky, & Staplin 2017). However, young drivers ages 19 to 24 were not only found to be nearly twice as likely as all drivers to text behind the wheel but also some of them believe that their dangerous driving behaviour is acceptable (Metcalf, 2017). In other words, distracted driving behind the wheel poses a great threat to road safety and may lead to increased road traffic crashes. Nonetheless, teen drivers as well as older drivers are at a greater risk of road traffic crashes (Molnar, Pradhan, David, Eby, Ryan, St. Louis, Zakrajsek, Ross, Lin, Liang, Zalewski, & Zhang, 2017). As driving is widely believed to help older adults stay mobile and independent, so also, does it enhance their chances of being injured or killed in road traffic crashes?

As such, as distracted driving behind the wheel increases, understanding the age group that is more likely to engage in this aberrant behaviour may give insight into the underlying traits motivating these behaviours (Bailey, Schroeder & Sims 2015).

However, attention-related error proneness and age reveal different ways of being distracted: older drivers showed a slowdown in performance and worse cognitive control when solving the conflict in comparison with younger drivers (López-Ramón, Castro, Roca, Ledesma & Lupiañez 2011). A previous study revealed that teenage drivers are distracted commonly and ill-regulate their driving behaviour concerning environmental conditions (Gershon, Zhu, Klauer, Dingus, & Simons-Morton, 2017). Although ages 19 to 24 of drivers are widely believed to be the worst, more information on age-specific issues concerning traffic safety may play an important role in reducing crashes and injuries in these sub-groups. It is observed that older drivers have the worst reaction time while using phones behind the wheel. Further to this, it may be that older drivers are not familiarized with the use of mobile phones behind the wheel and may not operate calls as young or middle-aged drivers (Papantoniou, Antoniou, Pavlou, Papadimitriou, Yannis, & Golias, 2017).

There exists an inverse relationship between age and the use of phones behind the wheel (Doroudgar, Chuang, Perry, Thomas, Bohnert, & Canedo, 2016). Younger and novice drivers may be more prone to the dangers of the use of phones behind the wheel (World Health Organization, 2011). In addition, a previous study revealed that not only are younger drivers but middle-aged drivers are also distracted with phones while driving (Asbridge, Brubacher, & Chan, 2013). In this direction, it was found that among older drivers, the risk of a major road traffic crash with mobile phone use was 3.79 times higher

than the risk with no mobile phone use (Huisingsh, Owsley, Levitan, Irvin, MacLennan & McGwin, 2019). Additionally, they suggest that older drivers should avoid the use of phones behind the wheel.

It was revealed that distracted driving, especially texting, may cause reduced safety and traffic flow, thus harming traffic operations (Stavrinos, Jones, Garner, Griffin, Franklin, Ball, Welburn, Ball, Sisiopiku & Fine, 2013). The results of the driving behaviour of young participants while engaged in various distractions revealed that participants reduced their speed in the presence of all mobile phone-related distractions on all roads (Ahangari, Jeihani, Salahshour, & Ndegwa, 2020). High rates of texting and driving was reported among young population risk (Bergmark, Gliklich, Guo, & Gliklich, 2016). Thus, linked more distraction while driving to an increase in cases of RTC in the previous 12 months. The findings are consistent with the idea that texting and other distracting activities on mobile phone contributes to the high rate of fatal RTC (Trivedi, et al., 2017).

There exists a distinction between the driving patterns of older and younger drivers in their reaction times as measured by driving simulator outcomes (López-Ramón et al., 2011). This may be a result of cognitive changes in young and emerging adults which make them prone to the use of phones behind the wheel (Brace, Young, & Regan, 2007). The use of phones behind the wheel affects drivers of all ages but posed a consistently greater risk to younger drivers below 30 years (Guo, et al., 2017). In other words, distracting activities negatively impact driving performance irrespective of their experience in performing a second task while driving (Farah, Zatmeh, Toledo & Wagner, 2016). This is because young drivers who had a crash history resulting from phone usage are less prone to use of phone while driving than those who did not have mobile -phone related crashes. Thus, driving experience and safe duration of distraction had a significant effect on mobile phone usage while driving. It was found that increased enforcement not to be as effective as conducting an educational campaign in tackling the use of phones behind the wheel (Shaaban, Gaweesh, & Ahmed, 2018).

2.3.12 Psycho-Social Factors and Proneness to Distracted Driving Behaviour

Psycho-social factors considers both an individual's psychological makeup (personality traits, locus of control and religiosity) along with the social context out of driving which it arises. Thus, Psycho-social factors offer a more comprehensive and effective method for

understanding proneness to distracted driving behaviour at an individual level and in the social context in order to facilitate the establishment of effective policies.

In world of driving, young drivers (17–24 years) not only have a high tendency of being killed in road traffic crashes but also there is a need to change drivers' risky behaviour through the identification of various psychosocial influences upon its initiation and maintenance (Scott-Parker, et al., 2009). If young drivers are to be considered distraction-prone, it is commonly emphasized that they may be susceptible to road traffic crashes. Perhaps, among the young drivers who are using their phones behind the wheel, some are inherently more likely to have road traffic crashes because of individual indifferences.

A previous revealed that in a psychosocial model of driving behaviour and road traffic crashes, psychological factors- depression, the personality trait of conscientiousness, failure schema due to the parenting style of the mother, perception of police commands and depression played an important role in predicting driving behaviour (Javadi, et al., 2015). The above results indicated that various factors contribute to various driving behaviours and road traffic crashes. Hence, it was suggested that the noteworthy predictors of risky driving behaviour are imitation of the driving behaviours and administration of anticipated rewards and punishments by parents and peers (Scott-Parker, et al., 2009). In addition, use of a phone behind the wheel and attention deficit disorder with or without hyperactivity also seem to be important risk factors associated with road traffic crashes while the family environment was also found to be strongly influenced of a young driver's behaviour (Ludovic, Pauline, Emilie, Charlotte, Pierre & Lucia, 2017).

Consequently, it found that texting while driving led to a statistically significant reduction of the mean speed and an increase of the mean reaction time in urban and rural road environment as well as led to an increased road traffic crash probability as a result of driver distraction and delayed reaction as at the period. (Yannis, Laiou, Papantoniou & Christoforou, 2014). Further to this, drivers using mobile phones with a touch screen present another driving behaviour concerning their speed. Nonetheless, they had an even higher chance of being involved in a road traffic crash. Also, researchers found that the road type (highway, main, rural and urban road) affects phone use in form of more touches per hour on urban roads (Kujala & Mäkelä, 2018).

Consequently, smartphone heavy-users were observed not to decrease their phone use while the demands of the traffic conditions increase and messaging applications may be the greatest risk from smartphone use. Similarly, it was found that older drivers are the most adversely affected group as a result of texting WhatsApp messages while driving which significantly impairs the ability to drive safely (Ortiz, Ortiz-Peregrina, Castro, Casares-López & Salas, 2018). As such, awareness must be raised for older drivers concerning their visual limitations as well as the younger drivers of the risks involved in phone use while driving behind the wheel.

In a nutshell, the knowledge of internal and external factors influencing young drivers' proneness to use of phone behind the wheel despite being regarded as unsafe as well as illegal behaviour may have important practical implications in terms of better informing road safety campaigns focusing on young drivers' use of phones behind the wheel. This, in turn, may contribute to a reduction in the extent that this unsafe behaviour contributes to road traffic crashes. A multi-strategy approach directed at the continued prevalence of texting while driving amongst young drivers may likely be useful in addressing the incidence of these risky driving behaviours (Nemme & White, 2010). In this direction, the previous study suggests that road traffic demands play a significant role in both drivers' distracted behaviour management and driving performance (Oviedo-Trespacios, Haque, King, & Demmel, 2018).

2.4 Hypotheses

Based on the assumptions that psycho-social factors: personality factors, locus of control and religious orientation affect driving in various ways and those young drivers are susceptible to distracted driving behaviour, the following hypotheses were stated:

1. The big five personality traits would significantly, independently and jointly predict proneness to distracted driving behaviour among young drivers
2. The two dimensions of locus of control would significantly, independently and jointly predict proneness to distracted driving behaviour among young drivers.
3. Religiosity would significantly and independently predict proneness to distracted driving behaviour among young drivers.

4. Risk-taking propensity would significantly and independently predict proneness to distracted driving behaviour among young drivers.
5. Risk-taking propensity would significantly mediate the influence which psychosocial factors have on voluntary distracted driving behaviour among young drivers.
6. Risk-taking propensity would significantly mediate the influence which psychosocial factors have on involuntary distracted driving behaviour among young drivers.
7. Risk-taking propensity would significantly mediate the influence which psychosocial factors have on proneness to distracted driving behaviour among young drivers.

2.5 Conceptual Framework

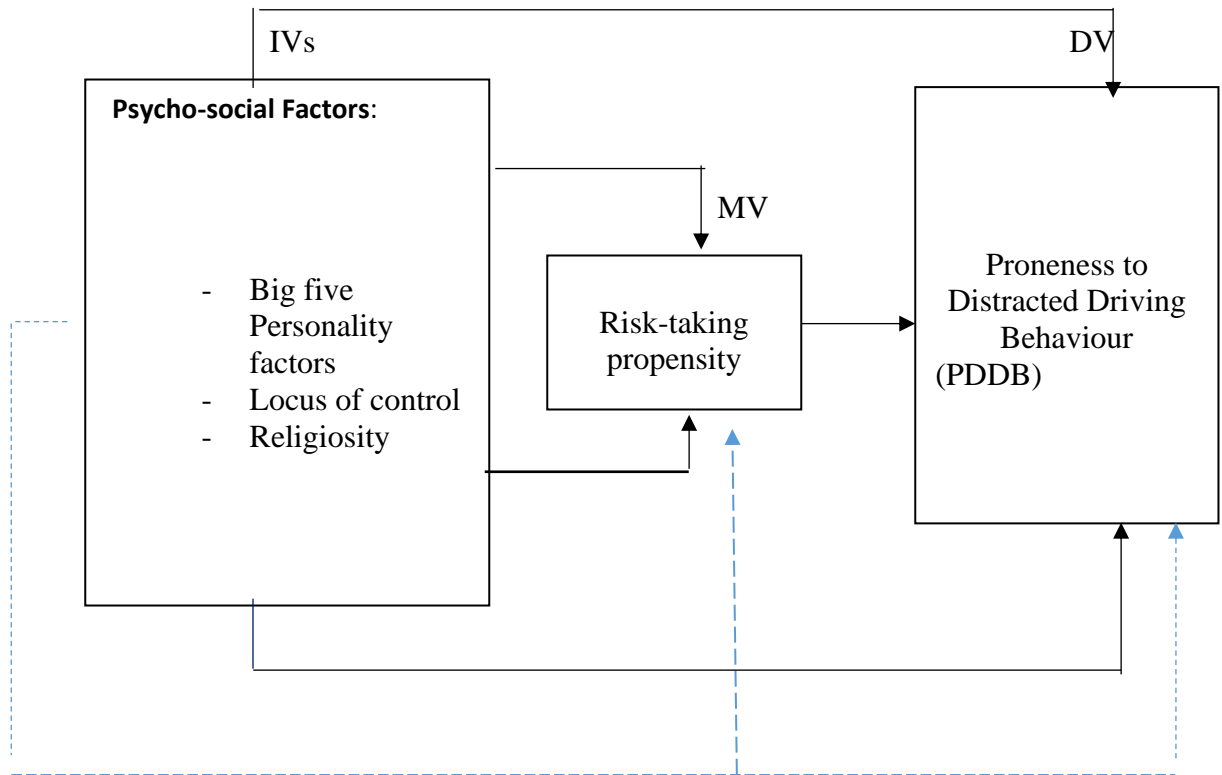


Figure 2.1: Conceptual Framework in the Study



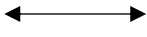

Figure 2.1. Represent the relationship between Personality Factors, Religiosity, Risk-taking propensity and PDDB.

KEY: Psycho- Social Factors/ Independent Variables (IVs):

- i. Personality Factors
- ii Locus of Control
- iii. Religiosity

Mediatory Variable (MV): Risk-taking,

Dependent Variable (DV): Proneness to Distracted Driving Behaviour (PDDB)

-  Shows Joint Link to the Dependent Variable.
-  Shows Direct Link to the Dependent Variable.
-  Shows interactive Link between the Independent Variables.
-  Shows Direct Link from the Mediating Variable.

There is a direct link between Personality Factors and PDDB.

There is a direct link between Religiosity and Proneness to distracted driving behaviour.

There is an interactive link between Personality Factors and Religiosity.

There is a Joint interactive link between the Independent Variables (i.e., Personality Factors and Religiosity) and the Dependent Variable (i.e., Proneness to distracted driving behaviour).

There is a Joint interactive link between the Independent Variables (i.e., Personality Factors and Religiosity) and the Dependent Variable (i.e., Proneness to distracted driving behaviour).

There is a mediating link from the Mediating Variable to all the Independent and Joint Links.

CHAPTER THREE

METHODOLOGY

This chapter comprises the research design, setting of the study, participants, instrument, sampling techniques, and procedures for data collection, ethical consideration and statistical analysis. The survey study was conducted among young drivers within the Ibadan metropolis.

3.1: The Design

An ex-post facto research design (cross-sectional) was used for this study because of qualities that pre-existed in a group of participants before the research were compared on a dependent variable. In other words, it is a form of design where the researcher studies how an independent variable, present before the study in the participants, affects a dependent variable without interference from the researcher (Salkind, 2010). Through this design, the predictive strength of the independent variable: psycho-social factors (personality factors, locus of control and religiosity) was assessed on the criterion variable: proneness to distracted driving behaviour as well as ascertained the predicting strength of the mediatory variable – risk-taking propensity on proneness to distracted driving behaviour through the psycho-social factors. The design helps to determine their correlational links and test hypotheses using statistical hypothesis testing techniques.

3.2: Setting:

The setting of the study was Ibadan, Oyo State. Ibadan was selected as the geographical location where data was collected because of being heterogeneous - many tribes and ethnic groups. The city is the origin of road safety in Africa (The Voice of Safety, 2009).

As of the time of this study, there are eleven local government councils: five of such are within the metropolitan city and six in the outer areas. The most urbanized city after Lagos is Ibadan which is also the capital city of Oyo State with a population of 1.8 million, based on the 1991 population census (Oluseyi, 2006). Also, records of road traffic crashes (Korter, Olubusoye, & Salisu, 2014) and observed incidences of distracted driving behaviour featured prominently in Ibadan.

From the road safety perspective, Ibadan city is the origin of the road safety corps in Africa, pioneered by Major General Jemibewon in 1977 (The Voice of Safety, 2009). The headquarters of the FRSC State Command (Oyo State Sector Command) is also located in Ibadan. This study focuses on the city of Ibadan within which four Driver's Licence Centres (DLC) are located and the other six outside the city but within the jurisdiction of Oyo State Sector Command.

3.3: Sampling Procedures:

Multistage cluster sampling is a complex type of cluster sampling. It is a form of cluster sampling which entails the breaking down of larger clusters into smaller ones for the sake of surveying (Agresti & Finlay, 2008). The researcher divides the population into groups at various stages for better data collection, management, and interpretation. During this sampling method, significant clusters of the selected people are split into sub-groups at various stages to make it simpler for primary data collection.

Using this technique, the researcher divided a total population of interest into clusters by geographic region- that is at the State level, Oyo State which has ten Driver Licence Centres. Through simple random sampling, only two centres within the Ibadan Metropolis were selected: Onireke and State Secretariat Driver Licence Centres. Thereafter, the researcher identified the elements to sample from the group – that is the age 18–25-year driver's licence applicants for the survey.

Hence, for the selection of young drivers (18-25 years), a multi-stage sampling technique was used. Also, because of the characteristic of the population sample, a purposive

sampling method was first used to decide what needed to be known as a result of knowledge and experience (Lewis & Sheppard, 2006).

3.4: Population

These are drivers whose age range is between (18-25) years. They belong to the first part of the three-stage Graduated Driver's License in Nigeria. They are otherwise called novice drivers because of their inexperience. This group of drivers is believed to be highly prone to road crashes which are also consistent with their traffic violation records because they do not possess the necessary skills and driving capabilities. In other words, if a young driver is to be considered distraction-prone, it is commonly emphasized that he may be susceptible to road traffic crashes. The population size for the research was 6,927 (both male and female) young licenced drivers.

3.4.1: The Pilot Study:

The pilot study, being a preliminary study, was carried out to ascertain whether the main study would be feasible or not. In addition, the pilot study population from which the sample was taken, was from the Ibadan metropolis. Being a large survey, the pilot study was used to pretest the questionnaire on a smaller scale to make sure that it measured what was it was designed for. The pilot study enabled the researcher to optimize the process to minimize unforeseen events in practically and manageable forms by taking care of issues that might negatively affect the study.

Further to this, the key steps (process, resources and management) that were taken when conducting this study were not based on a faulty foundation to avoid wasting time and resources. For instance, it was during the pilot study that issues such as who was eligible to participate in the study (target group defined in terms of age 18-25 years), how much time the main study would take to be completed and problems with data management were decided. Also, the trial data age of 18-25 years were tested through the proposed statistical analysis to see whether the proposed analysis was appropriate for the data set.

This was conducted using thirty (30) participants for the pre-test and establishment of the psychometric properties of the research instruments used. This was done by using FRSC

Driver's Licence Centre in Ibadan, Oyo State. Convenient sampling was used for this study because of proximity of young drivers to the Driver's Licence Centre. Only young drivers who voluntarily consent to participate in the research were given copies of the self-administered questionnaire. The Statistical Package for Social Sciences (SPSS) version 20 software was used to determine the test reliability for the pilot study. Also, Cronbach's Alpha for the adopted instruments were determined: Locus of control- .65; Religiosity – .67; Risk-taking propensity -.89, B-F10 personality inventory scale: Extraversion ($\alpha = .69$), Agreeableness ($\alpha = .51$), Conscientiousness ($\alpha = .70$), Neuroticism ($\alpha = .61$) and Openness ($\alpha = .63$) and Susceptibility to Distracted Driving Behaviour: Engagement in distraction while driving $\alpha = .66$; attitude about voluntary $\alpha = .67$; perceived control, $\alpha = .80$; potential facilitators of voluntary distraction $\alpha = .73$; voluntary distraction $\alpha = .81$; involuntary, $\alpha = .69$.

Having established the reliability coefficients of all the research instruments through the pilot study. Test reliability was carried out to ascertain that the scale consistently measures a characteristic. In other words, to ensure that if a participant is being evaluated using the test again and it yields similar scores. Further, the centre for the administration of the questionnaire had equal chance of being selected with the four other centres within the Ibadan metropolis. The Iwo Road Driver Licence Centre where the pilot study was carried out was chosen among all the four centres neatly paper-folded separately in a bowl and a convenient sampling (due to convenience and proximity to the researcher) was used to administer the research instrument to only participants who had voluntarily given their consent.

3.5: Procedure for Data Collection

3.5.1: Main Study

The main study was carried out by administering the questionnaire at the two randomly selected Driver's Licence Centres - Onireke and State Secretariat Agodi within Ibadan to participants who were scheduled for the physical capture of their biometric. Indeed, within the city of Ibadan, there are four Driver's Licence Centres (DLC) and the other six are outside the city but within the jurisdiction of Oyo State Sector Command. Those two

centres were randomly selected among all the four centres neatly paper-folded separately in a bowl. This was to ensure that young drivers from various segments of the Ibadan metropolis were covered in the study.

The traditional pen and paper questionnaire was used to encourage respondents to complete the entire questionnaire. Although 452 copies of questionnaire were filled, 32 of such were not properly which were removed. Hereafter, the responses were coded and statistically analysed in relation to the stated hypotheses

3.5.2: Sample Size:

The total number of driver's licences (18-25) produced for 2018 in Oyo State was 6,927 (FRSC, 2018 -RS 11.3). Using the Yamane (1967) formula, the minimum sample size needed for the study is 400 participants, an additional 5% of the participants was added for attrition, making the total number of 420 research instruments collected. Hence, the sample size for the research was 420 (both male and female) licenced drivers in Ibadan.

Inclusion Criteria:

1. Participants must be 18- 25 years.
2. Participants must have driven within the Ibadan metropolis within the last six months of 2020.
3. Participants must have a mobile phone.

3.5.3: Sampling Size Calculation Formula

Using the Yamane (1967). Sampling Size Calculation formula as shown below: $n = \frac{N}{1 + N * (e)^2}$

N= Population size, e= margin of error

$$n = \frac{6,927}{1 + 6,927 * (.05)^2} n = 400$$

3.6: Instrument:

A structured questionnaire, was used to collect relevant data for this study. The questionnaire consisted of standardized adopted scales with adequate psychometric properties. The questionnaire was in six sections: sections A to F measuring, socio-demographic characteristics of respondents and scales measuring the big 5 personality factors, locus of control religiosity, proneness to distracted driving behaviour and risk-taking propensity.

Section A: The Socio-demographic Characteristics

This consisted of the socio-demographic characteristics of the participants which included gender, age, religion, highest educational qualification, occupation and years of driving experience.

Section B: Big Five Inventory

A 10-item version of the Big Five Inventory- BFI-10 was adopted and used for this study. It was designed to provide a scale of the Big Five for contexts in which participant time is strictly limited. This tends to allow its use in cross-cultural research and using peer ratings, it indicates that the BFI-10 scale holds significant levels of reliability and validity (Rammstedt & John 2007). In other words, the need for less time-consuming evaluations led Rammstedt & John (2007) to develop BFI – 10 that was used in the evaluation of Neuroticism, Extraversion, and Openness to Experience, Conscientiousness and Agreeableness in Britain with which the personality of the participants can be described. Each item is a short phrase that the participant used to evaluate the description of their personality through a 5- point Likert scale and it took less than one minute to answer. Also, in scoring the BFI-10 scales used in this study, the following guide was adhered to strictly: Extraversion: 1R, 6; Agreeableness: 2, 7R; Conscientiousness: 3R, 8; Neuroticism: 4R, 9; Openness: 5R; 10 (where R is reversed-scored). The following internal consistencies were reported for the sub-scales: Extraversion ($\alpha = .70$), Agreeableness ($\alpha = .69$), Conscientiousness ($\alpha = .63$), Neuroticism ($\alpha = .62$) and Openness ($\alpha = .60$)

Section C: The Traffic Locus of Control Scale (T-LOC)

The Traffic Locus of Control Scale (T-LOC) was adopted to evaluate internal locus of control (self) and external locus of control -vehicle & environment, other drivers and fate (Özkan & Lajunen, 2005). The instrument is made of 17 items: 5 items for internal and 12 items for the external locus of control. Through a 5- point Likert scale (1=Disagree Strongly to 5= Agree Strongly), the participants responded to certain situations and the possibility that it might cause or had caused a road crash when they consider their driving style or the outside conditions. One of the items is: “Whether or not I get into a car accident depends mostly on if other drivers drive too close to my car”. Young drivers who score high on internal locus of control would likely attribute proneness to distracted driving behaviour to their skill and believe they had control over their driving skill while those who would be high on external locus of control would base their proneness on distracted driving behaviour on outside influences. In this study, locus of control was found to have the following internal consistency for the two sub-scales; Internal Locus of Control ($\alpha = .80$) and External Locus of Control ($\alpha = .88$).

Section D: The Duke University Religion Index (DUREL)

The Duke University Religion Index (DUREL) has three subscales: Intrinsic Religiosity (IR), Non-Organizational Religiosity (NOR), and Organizational Religiosity (OR). Intrinsic Religiosity (IR) is viewed as the degree to which an individual integrates his religious principles within his life or uses them as the foundation for life decisions (Storch et al., 2004). In other words, IR evaluates the level of personal religious commitment (Koenig & Büssing, 2010). Among the three subscales, there seems to be a consensus among researchers that IR is multidimensional (Storch et al 2004 and Koenig & Büssing, 2010).

In addition, it has been found that an item out of the three-item IR is the best predictor of religiosity - “My religious beliefs are what lie behind my whole approach to life” (Koenig & Büssing, 2010). In other words, young drivers with this approach will bring their religious beliefs virtually into any form of activities they engage in. Thus, young drivers are not only supposed to be submissive to the laws of religion alone but also to traffic regulations such as the prohibition of the use of phones while driving enacted by the

government. In this study, all three (3) items were of the adopted scale was found to have an adequate internal consistency of ($\alpha = .68$).

The participant's mean score will be used to determine high and low religiosity. Those who score high on the scale are likely to have strong convictions in God or a higher power that can prevent road traffic crashes and are less likely to be prone to distracted driving behaviour while those who score low on the scale are unlikely and will be prone to distracted driving behaviour.

Section E: Risk-taking Propensity

As a mediatory variable, it was measured with adopted self-report questionnaires, General Risk Propensity Scale (GRIPS) to ascertain its independent and joint influence effect on the dependent variable- proneness to distracted driving behaviour (Zang et al., 2018). The scale, is a short measure of general risk-taking propensity and also converged with existing scales of risk propensity which tend to provide an additional prediction of work, academic, and life outcomes over the five-factor model of personality and the Domain-Specific Risk-Taking (DOSPERT) scale (Zang et al, 2018). The scale consists of 8-item; in Likert format (1 – Strongly disagree; 5 – Strongly agree). In this study, this scale was found to have an internal consistency of ($\alpha = .90$).

Section F: Proneness to Distracted Driving Behaviour

Proneness to distracted driving behaviour in this study was measured using adopted Susceptibility to Driver Distraction Questionnaire (SDDQ). This is a useful self-report method to investigate driver distraction (Feng et. al., 2014). Apart from high internal correlations between the likelihood of engagement and the attitudes and beliefs about distraction, it is also consistent with the Theory of Planned Behaviour (Feng et al., 2014).

This scale has 32 items while items related to voluntary distraction are associated with personality traits of impulsiveness and sensation seeking and those related to involuntary distraction are associated with cognitive measures. Items on phone-related distraction and passenger conversation were also inclusive. An average score was calculated separately for each subsection. Each item was assigned a value between 1 and 5 (with 1 representing

‘never’ or ‘strongly disagree’, and 5 representing ‘very often’ or ‘strongly agree’). Notably, in this study, the scale consists of two major sub-scales: voluntary and involuntary distracted driving behaviour. Reliability analysis of this scale range between 0.80 and 0.90. Engagement in distraction while driving $\alpha = .66$; attitude about voluntary $\alpha = .67$; perceived control, $\alpha = .80$; potential facilitators of voluntary distraction $\alpha = .73$; voluntary distraction $\alpha = .81$; involuntary, $\alpha = .69$. Using the SDDQ, each participant's scores were calculated. In other words, an average score which is the sum of items was calculated distinctly for each subsection.

3.7: Statistical Analyses

Data on socio-demographic variables of respondents were analysed using descriptive statistics. All the hypotheses stated in this study were based on a literature review and were tested with appropriate inferential statistics. Specifically, hypotheses 1, 2, and 3 were tested with simple regression. Hypothesis 4 was tested with multiple regression to determine the relative predictive strength of the psychological variables on the criterion variable. Hypotheses 5, 6 and 7 were tested with path regression analysis to examine the relative importance of a mediating variable in the relationship between the psycho-social variables (personality factors, locus of control and religiosity) and a criterion variable (i.e., proneness to distracted driving behaviour). All hypotheses were tested at 0.05 significances.

3.8: Ethical Considerations

This study was ethically screened and approved by the constituted authority in Oyo State Ministry of Health and Social Sciences and Humanities Research Ethics Committee-SSHRC, University of Ibadan, before embarking on it. See appendix 1, 2 and 3.

CHAPTER FOUR

RESULTS

This chapter presents results on gathered data as regards the psycho-social factors and the mediatory role of risk-taking as predictors of proneness to distracted driving behaviour among young drivers. Data was gathered from four hundred and twenty (420) young drivers.

Table 4.1: Socio-Demographic Distribution of Respondents

SN	Variables	Response	Frequency	Percentage
1	Gender	Male Female	289 131	68.8 31.2
2	Age Mean = 22.55 SD = 2.11	18-20 years 21-24 years Above 24 years	89 237 94	21.2 56.4 22.4
3	Religion	Christianity Islam	335 85	79.8 20.2
4	Educational Qualification	Primary SSCE NCE/OND HND/First degree Masters	23 71 93 211 22	5.5 16.9 22.1 50.2 5.2
5	Occupation	Unemployed Corp member Driver Student Call Centre agent Teacher Self-employed Engineer Pharmacist Civil servant Medical Doctor Lawyer Accountant Nurse Estate agent Architect	57 19 25 176 8 4 74 17 6 5 8 9 7 2 2 1	13.5 4.5 6 41.9 1.9 1 17.6 4 1.4 1.2 1.9 2.1 1.7 0.5 0.5 0.2
6	Year of driving experience Mean = 2.70 SD = 1.71	Less than 5 years 5 years and above	340 80	81 19
	Total		420	100

Table 4.1 presents results on demographic distribution of respondents. Gender distribution showed that more of the respondents 289 (68.8%) were males, while the other 131 (31.2%) were females. Age distribution showed that more 237 (56.4%) were between 21 and 24 years old, 94 (22.4%) were above 24 years old, while the other 89 (21.2%) were between 18 and 20 years old. Average age of respondents was 22 years 6 months (SD = 2.11). Distribution according to educational qualification revealed that more of the respondents 211 (50.2%) were higher national diploma or University degree holders, 93 (22.1%) were national certificate of education/ordinary national diploma certificate holders, 71 (16.9%) were secondary school leaving certificate holders, 23 (5.5%) were primary school certificate holders, while the other 22 (5.2%) were master's degree holders.

According to occupational distribution, more of the respondents 176 (41.9%) were students, 57 (13.5%) were unemployed, 25 (6%) were drivers, 19 (4.5%) were NYSC corps members, 17 (4%) were engineers, 9 (2.1%) were Lawyers, 8 (1.9%) were call center agents, another 8 (1.9%) were medical doctors, 7 (1.7%) were accountants, 6 (1.4%) were Pharmacists, 5 (1.2%) were civil servants, 2 (0.5%) were Nurses and estate agents, while an individual indicated to be an Architects.

Finally, average year of driving experiences was 2 years, 7 months, with more of them 340 (81%) has less than 5 years of driving experience, while the other 80 (19%) indicated to have 5 years and above. However, in this present study, only age was elaborately considered in order not to go beyond the scope of the study.

Table 4.2: Zero-Order Correlation of the Relationship between Personality Traits, Religiosity, Locus of Control, Risk-Taking Propensity and Proneness to Distracted Driving Behaviour.

SN	Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1	Proneness to DDB.	77.37	17.02												
2	Involuntary.	30.51	10.06	.67**	-										
3	Voluntary	46.86	12.66	.81**	.11*	-									
4	Extra.	5.58	1.38	.03	.01	.03	-								
5	Agreeab.	7.70	1.46	-.07	-.08	-.03	-.13**	-							
6	Conscien.	7.72	1.48	-.12*	-.12*	-.07	.09	.28**	-						
7	Neuroti.	4.98	1.58	.05	.09	-.01	-.06	-.27**	-.25**	-					
8	Openne.	6.60	1.30	-.02	-.01	-.02	-.02	.10*	.09	.03	-				
9	Religio.	11.82	2.22	.12*	.11*	.08	-.02	.18**	.14**	-.15**	.06	-			
10	Internal	15.50	3.95	.17**	.10	.15**	-.02	.03	-.02	.05	.13**	.10*	-		
11	External	30.48	6.52	.14**	-.04	.22**	-.04	.02	.04	-.05	.11*	.14**	.67**	-	
12	Risk-taking.	21.70	6.84	.29**	.08	.33**	.14**	-.03	.01	-.09	.03	.08	.07	.07	-

**** Significant at 0.01, * Significant at 0.05**

Table 4.2. presents results on the relationship between proneness to distracted driving behaviour and dimensions (voluntary and involuntary distraction), 5 personality traits, religiosity, locus of control (internal and external) and risk-taking propensity among young drivers. It is shown on Table 4.3 that proneness to distracted driving behaviour had significant and positive relationship with involuntary distraction ($r = .67$; $P < .01$), voluntary distraction ($r = .81$; $P < .01$), religiosity ($r = .12$; $P < .05$), internal LOC ($r = .17$; $P < .01$), external LOC ($r = .14$; $P < .01$) and risk-taking propensity ($r = .29$; $P < .01$). This implies that the higher the involuntary and voluntary distraction, religiosity, locus of control (external and internal), and risk-taking propensity, the higher the proneness to distracted driving behaviour among young drivers.

However, Table 4.2 shows the existence of a significant and negative link between conscientiousness and proneness to distracted driving behaviour ($r = -.12$; $P < .05$). This connotes that the higher the conscientiousness, the lower the proneness to distracted driving behaviour. Further from Table 4.2, shows that involuntary distraction had a significant and positive relationship with voluntary distraction ($r = .11$; $P < .05$) and religiosity ($r = .11$; $P < .05$). This implies that the higher the voluntary distraction and religiosity, the higher the proneness to distracted driving behaviour. However, distraction had a significant and negative relationship with conscientiousness ($r = -.12$; $P < .05$).

This implies that the higher the conscientiousness, the lower the involuntary distraction. Further, this study found that voluntary distraction had significant and positive relationship with internal LOC ($r = .15$; $P < .01$), external LOC ($r = .22$; $P < .01$) and risk-taking propensity ($r = .33$; $P < .01$).

4.1: Hypothesis One

The five personality traits of the study will significantly, independently and jointly predict proneness to distracted driving behaviour among young drivers. This was tested using multiple regression analysis and the result is presented in Table 4.3; 4.4 and 4.5

Table 4.3: Multiple Regression of the Personality Traits as Predictors of Proneness to Distracted Driving Behaviour

Criterion	Predictors	B	t	P	R	R²	F	P
Proneness to Distraction	Extraversion	.03	.69	>.05				
	Agreeableness	-.03	-.49	>.05				
	Conscientiousness	-.1	-	<.05	.13	.02	1.36	>.05
				2.08				
	Neuroticism	.01	.28	>.05				
	Openness	-.01	-.16	>.05				

Table 4.3 presents results on the joint and independent predictive strength of the five personality traits on PDDB and its dimensions (voluntary and involuntary distraction) among young drivers. It shows those five personality traits did not significantly and jointly predict proneness to distracted driving behaviour [$R = .13$; $R^2 = .02$; $F(5, 414) = 1.36$; $P > .05$]. Nonetheless, conscientiousness ($\beta = -.11$; $t = -2.08$; $P < .05$) predict independently proneness to distracted driving behaviour among young drivers.

As regards voluntary distraction, Table 4.4 shows that those five personality traits did not jointly or independently predict voluntary distraction among young drivers [$R = .08$; $R^2 = .01$; $F(5, 414) = .54$; $P > .05$]. As regards involuntary distraction, Table 4.5 shows that personality traits (extraversion, neuroticism, openness to experience, agreeableness and conscientiousness) did not jointly or independently predict proneness to distracted driving behaviour among young drivers. [$R = .14$; $R^2 = .02$; $F(5, 414) = 1.59$; $P > .05$].

Table 4.4: Multiple Regression of the Personality Traits as Predictors of Voluntary Distraction

Criterion	Predictors	B	t	P	R	R²	F	P
	Extraversion	.04	.73	>.05				
	Agreeableness	-.01	-.11	>.05				
Voluntary distraction	Conscientiousness	-.07	-1.37	>.05	.08	.01	.54	>.05
	Neuroticism	-.03	-.49	>.05				
	Openness	-.01	-.26	>.05				

Table 4.5: Multiple Regression of the Personality Traits as Predictors of Involuntary Distraction

Criterion	Predictors	B	t	P	R	R²	F	P
Involuntary distraction	Extraversion	.01	.24	>.05				
	Agreeableness	-.04	-.70	>.05				
	Conscientiousness	-.09	-1.79	>.05	.14	.02	1.59	>.05
	Neuroticism	.06	1.09	>.05				
	Openness	.01	.06	>.05				

4.2 Hypothesis Two

The LOC dimensions (internal and external LOC) will significantly independently, and jointly predict proneness to distracted driving behaviour among young drivers. This was tested using multiple regression analysis and the result is presented in Table 4.6.

Table 4.6: Multiple Regression of the Locus of Control as Predictors of Proneness to Distracted Driving Behaviour

Criterion	Predictors	B	t	P	R	R²	F	P
Proneness to Distracted Driving.	Internal LOC	.14	2.15	<.05				
					.17	.03	6.47	<.05
	External LOC	.05	.71	>.05				

Table 4.4: presents results on the independent and joint predictive strength of locus of control (external and internal) on PDDB and its dimensions (voluntary and involuntary distraction) among young drivers. It is shown that LOC (external and internal) did significantly and jointly predict proneness to distracted driving behaviour among young drivers [$R = .17$; $R^2 = .03$; $F(2, 417) = 6.47$; $P < .05$]. Collectively, LOC (external and internal) accounted for about a 3% variance in proneness to distracted driving behaviour. However, only the internal LOC significantly and independently predicted proneness to distracted driving behaviour ($\beta = .14$; $t = 2.15$; $P < .05$).

As regards voluntary distraction, it is shown in Table 4.5 that LOC (external and internal) did significantly and jointly predict voluntary distraction among young drivers [$R = .22$; $R^2 = .05$; $F(2, 417) = 10.64$; $P < .01$]. In other words, there is an interaction effect which indicates how external and internal LOC work together to predict voluntary distraction. Hence, it gives a better representation and understanding of the relationship between proneness to distracted driving behaviour and psycho-social factors as well as helps explain more of the variability in the dependent variable. However, only the external LOC did significantly and independently predict voluntary distraction ($\beta = .21$; $t = 3.31$; $P < .05$). From this result one may conclude that voluntary distraction and LOC depend on the external LOC.

**Table 4.7: Multiple Regression of the Locus of Control as
Predictors of Voluntary Distraction**

Criterion	Predictors	B	t	P	R	R²	F	P
	Internal LOC	.01	.17	>.05				
Voluntary Distraction.					.22	.05	10.64	<.01
	External LOC	.21	3.31	<.05				

Table 4.8: Multiple Regression of the Locus of Control as Predictors of Involuntary Distraction

Criterion	Predictors	B	t	P	R	R²	F	P
	Internal LOC	.22	3.42	<.05				
Involuntary Distraction.					.17	.03	6.20	<.05
	External LOC	-.19	-2.92	<.05				

As regards involuntary distraction, it is shown in Table 4.8 that LOC (external and internal) did significantly and jointly predict voluntary distraction among young drivers. [$R = .17$; $R^2 = .03$; $F(2, 417) = 6.20$; $P < .05$]. In other words, there is an interaction effect which indicates how external and internal LOC work together to predict involuntary distraction. Hence, this helps to explain more of the variability in the dependent variable. Collectively, LOCS (external and internal) accounted for about a 3% the variance in involuntary distraction. Also, internal LOC ($\beta = .22$; $t = 3.42$; $P < .05$) and external LOC ($\beta = -.19$; $t = -2.92$; $P < .05$) did significantly and independently predict involuntary distraction. It is equally valid to interpret to mean that involuntary distraction and LOC depend on external LOC.

4.3: Hypothesis Three

Religiosity will independently and significantly predict proneness to distracted driving behaviour among young drivers. The result of using linear regression to test the above hypothesis is shown in Table 4.9.

Table 4.9: Linear Regression of the predictive strength of Religiosity on Proneness to distracted driving behaviour.

DV	IV	B	t	P	F- Ratio	R	R ²	Adj. R ²	Sig.
Proneness to distracted driving behaviour.	Religiosity	.12	2.48	<.05	6.17	.12	.02	.01	<.05
Voluntary distraction	Religiosity	.08	1.55	>.05	2.39	.08	.01	.00	>.05
Involuntary distraction	Religiosity	.11	2.25	<.05	5.05	.11	.01	.01	<.05

Table 4.9 showed that the linear predictive strength of religiosity on proneness to distracted driving behaviour was significant [$F(1, 418) = 6.17$; $R = .12$, $R^2 = .02$, $Adj.R^2 = .01$; $P < .05$]. Religiosity accounted for a variation of about 2% in proneness to distracted driving behaviour. The direction of the beta value (.12) indicates that as religiosity increases, proneness to distracted driving behaviour also increases.

As regards voluntary distracted driving behaviour, it is shown that religiosity did not significantly predict voluntary distraction [$F(1, 418) = 2.39$; $R = .08$, $R^2 = .01$, $Adj.R^2 = .00$; $P > .01$]. As regards involuntary distraction, it is shown that religiosity did significantly predict involuntary distraction [$F(1, 418) = 5.05$; $R = .11$, $R^2 = .01$, $Adj.R^2 = .01$; $P < .05$]. Religiosity accounted for a variation of about 1% in proneness to distracted driving behaviour. The direction of the beta value (.11) indicates that as religiosity increases, proneness to involuntary distraction also increases.

4.4: Hypothesis Four

Risk-taking propensity will independently and significantly predict proneness to distracted driving behaviour among young drivers. The result of using linear regression to test the above hypothesis is shown in Table 4.8.

Table 4.10: Linear Regression of the predictive strength of Risk-Taking propensity on Proneness to distracted driving behaviour.

DV		IV	β	t	P	F-Ratio	R	R²	Adj. R²	Sig.
Proneness to distracted driving behaviour	driving	Risk taking	.29	6.24	<.01	38.95	.29	.09	.08	<.01
Voluntary distraction		Risk taking	.33	7.09	<.01	50.20	.33	.11	.11	<.01
Involuntary distraction		Risk taking	.08	1.69	>.05	2.84	.08	.01	.00	>.05

Table 4.10 showed that the linear predictive strength of risk-taking propensity on proneness to distracted driving behaviour was significant [$F(1, 418) = 38.95$; $R = .29$, $R^2 = .09$, $Adj.R^2 = .08$; $P < .01$]. Risk-taking propensity accounted for a variation of about 9% in proneness to distracted driving behaviour. The direction of the beta value (.29) indicates that as risk-taking propensity increases, proneness to distracted driving behaviour also increases.

As regards voluntary distraction, it is shown that risk-taking propensity did significantly predict voluntary distraction [$F(1, 418) = 50.20$; $R = .33$, $R^2 = .11$, $Adj.R^2 = .11$; $P < .01$]. Risk-taking propensity accounted for a variation of about 11% in voluntary distraction. The direction of the beta value (.33) indicates that as risk-taking propensity increases, voluntary distraction also increases.

As regards involuntary distraction, it is shown that religiosity did not significantly predict involuntary distraction [$F(1, 418) = 2.84$; $R = .08$, $R^2 = .01$, $Adj.R^2 = .01$; $P > .05$].

4.5: Hypothesis five

Risk-taking propensity would significantly mediate the influence which psycho-social factors have on voluntary distraction among young drivers. This was tested using stepwise multiple regression and the results are shown in Tables 4.9, 4.10 and 4.11.

Table 4.11: Stepwise multiple regression analysis of the mediatory role of risk-taking propensity in relation to Psycho-social factors and voluntary distraction

	Variables	B	t	P	R²	R²Δ	F	FΔ	P	PΔ
Path A	Extraversion	.139	2.816	<.05	.040	.040	2.130	2.130	<.05	<.05
< RTP	Neuroticism	-.041	-.765	>.05						
	Openness to Ex.	-.022	-.421	>.05						
	Agreeableness	-.085	-1.635	>.05						
	Conscientiousness	.022	.451	>.05						
	Internal LOC	.070	1.395	>.05						
	External LOC	.037	.569	>.05						
	Religiosity	.040	.609	>.05						
Path B	Risk-taking	0.327	7.085	<.01	.107	.107	50.196	50.196	<.01	<.01
<VD										

Key:

RTP – Risk- Taking Propensity

VD- Voluntary Distraction

As shown in Table 4.11, personality traits (extraversion, neuroticism, openness to experience, agreeableness and conscientiousness), religiosity and LOC (internal and external) significantly and jointly predicted voluntary distraction among young drivers. The independent contribution of extraversion on risk-taking ($\beta = .139$, $t = 2.816$, $p < .05$) was significant in Path A. Also, the independent contribution of risk-taking propensity on voluntary distraction ($\beta = .327$, $t = 7.085$, $p < .01$) was significant in Path B.

As shown in Table 4.12, Path C1, only the independent contribution of religiosity ($\beta = .216$, $t = 3.323$, $p < .01$) on voluntary distraction was significant. However, as shown in table 4.2.31 in Path C2, the independent contributions of religiosity ($\beta = .204$, $t = 3.294$, $p < .01$) and risk-taking ($\beta = .313$, $t = 6.752$, $p < .01$) on voluntary distraction were significant. It should be noted that the independent contributions of personality traits (extraversion, neuroticism, openness to experience, agreeableness and conscientiousness), religiosity and LOC (internal and external) in Path C1 were all reduced as a reason for the introduction of the mediatory variable, the risk-taking propensity in Path C2.

Table 4.12: Stepwise multiple regression analysis of the mediatory role of risk-taking propensity in relation to Psycho-social factors and voluntary distraction

	Variables	B	t	P	R²	R²Δ	F	FΔ	P	PΔ
Path C ₁	Extraversion	.048	.975	>.05	.061	.061	3.360	3.360	<.01	<.01
<VD	Neuroticism	-.009	-.177	>.05						
	Openness to Ex.	-.083	-1.606	>.05						
	Agreeableness	-.009	-.180	>.05						
	Conscientiousness	-.040	-.824	>.05						
	Internal LOC	.059	1.188	>.05						
	External LOC	.008	.118	>.05						
	Religiosity	.216	3.323	<.01						

Key:

VD- Voluntary Distraction

Table 4.13: Stepwise multiple regression analysis of the mediatory role of risk-taking propensity in relation to psycho-social factors and voluntary distraction

	Variables	B	T	P	R²	R²Δ	F	FΔ	P	PΔ
Path C ₂ <VD	Extraversion	.004	.087	>.05	.155	.094	8.376	45.589	<.01	
	Neuroticism	.003	.068	>.05						
	Openness to Ex.	-.076	-1.550	>.05						
	Agreeableness	.017	.354	>.05						
	Conscientiousness	-.047	-1.018	>.05						
	Internal LOC	.037	.784	>.05						
	External LOC	-.004	-.065	>.05						
	Religiosity	.204	3.294	<.01						

Key:

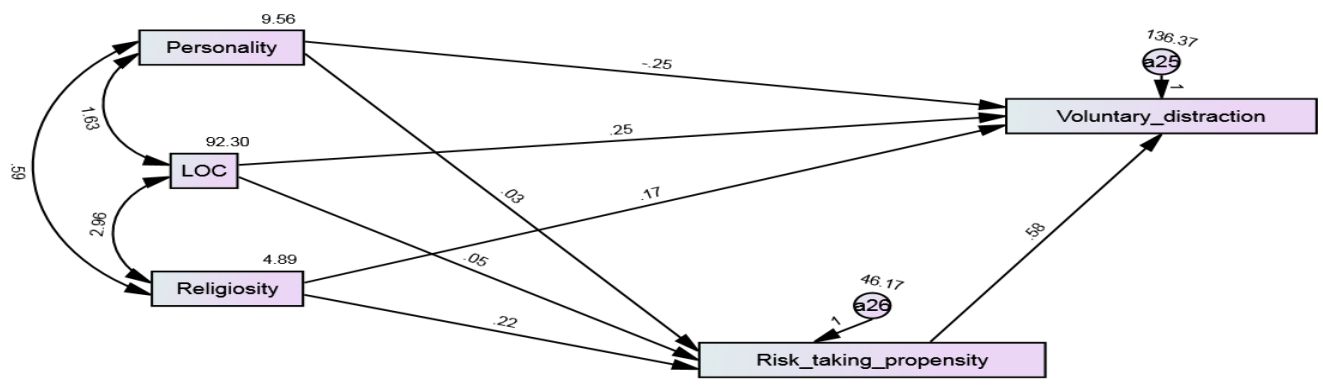
VD- Voluntary Distraction

Further, the primary focus in a mediation analysis is to see whether the effect of the personality traits, religiosity and locus of control - independent variable on proneness to distracted driving behaviour – dependent variable could be mediated by a change in the mediatory variable- risk-taking propensity. In a full mediation process, the effect is 100% mediated by the mediator, that is, in the presence of the mediator, the pathway connecting the independent variable to the dependent variable is completely broken so that the independent variable has no direct effect on the dependent. In this study, partial mediation was observed, where the risk-taking propensity (mediator) only mediates part of the effect of religiosity on the voluntary distraction (dependent) that is religiosity had some residual direct effect even after the mediator was introduced into the model.

With the mediation analysis, insight and a deep understanding of the mechanism of religiosity were gained. Hence, the mediatory role of risk-taking propensity, an intermediate variable helps explain how or why religiosity predicts the proneness to distracted driving behaviour. In the primary hypothesis of interest, there seems to be the possibility of a mediation in Path C2 which was further tested with structural equation modelling as presented in figure 4.1.

Structural equation modelling (SEM) implies a functional relationship expressed via the conceptual model and path diagram. The models include both endogenous (dependent) and exogenous (independent) variables which may become independent variables in other equations within the SEM equations. The SEM models are best signified by path diagrams which are made up of nodes representing the variables and arrows showing relationships among these variables. The single straight arrow indicates a causal relation from the base of the arrow to the head of the arrow. The curved two-headed arrow indicates there may be some association between the two variables. Hence, figure 4.1 is a constructed model in the existence of a mediator latent construct. This model is constructed so that the direct and indirect effects of exogenous latent constructs (predictors-personality, locus of control and religiosity) toward endogenous latent constructs (criterion –voluntary distraction and mediator – risk-taking propensity) could be observed.

Figure 4.1:



**Table 4.14: Structural Equation Standardized Direct Effects Using
The Bootstrap Approach**

	Personality	Religiosity.	LOC	Risk-taking
Risk-taking	.014	.070	.067	.000
Voluntary distraction	-.062	.030	.187	.312

**Table 4.15: Structural Equation Standardized Indirect Effects
Using the Bootstrap Approach**

	Personality	Religiosity	LOC	Risk-taking
Risk-taking	.000	.000	.000	.000
Voluntary Distraction	.004	.022	.021	.000

Tables 4.14 and 4.15 test the significance of the mediation of risk-taking propensity. The standardized direct (unmediated) effect of personality on voluntary distraction is $-.062$. That is, due to the direct (unmediated) effect of personality on voluntary distraction when personality goes up by 1 standard deviation, voluntary distraction goes down by 0.062 standard deviations.

While the standardized indirect (mediated) effect of personality on voluntary distraction is $.004$. That is, due to the indirect (mediated) effect of personality on voluntary distraction, when personality goes up by 1 standard deviation, voluntary distraction goes up by 0.004 standard deviations.

The standardized direct (unmediated) effect of religiosity on voluntary distraction is $.030$. That is, due to the direct (unmediated) effect of religiosity on voluntary distraction when religiosity goes up by 1 standard deviation, voluntary distraction goes up by 0.03 standard deviations. While the standardized indirect (mediated) effect of religiosity on voluntary distraction is $.022$. That is, due to the indirect (mediated) effect of religiosity on voluntary distraction, when religiosity goes up by 1 standard deviation, voluntary distraction goes up by 0.022 standard deviations.

In addition, the standardized direct (unmediated) effect of LOC on voluntary distraction is $.187$. That is, due to the direct (unmediated) effect of LOC on voluntary distraction when LOC goes up by 1 standard deviation, voluntary distraction goes up by 0.187 standard deviations. While the standardized indirect (mediated) effect of LOC on voluntary distraction is $.021$. That is, due to the indirect (mediated) effect of LOC on voluntary distraction, when LOC goes up by 1 standard deviation, voluntary distraction goes up by 0.021 standard deviations. Hence, the standardized indirect effect table shows that the latent constructs of personality, locus of control and religiosity have partial mediation effects toward voluntary distraction through risk-taking.

4.6: Hypothesis Six

Risk-taking propensity would significantly mediate the influence which psycho-social factors have on involuntary distraction among young drivers. This was tested using stepwise multiple regression and the result is presented in Tables 4.16.

Table 4.16: Stepwise multiple regression analysis of the mediatory role of risk-taking propensity in relation to psycho-social factors and involuntary distraction

	Variables	B	t	P	R ²	R ² Δ	F	to FΔ	P	PΔ
Path A	Extraversion	.139	2.816	<.05	.040	.040	2.130	2.130		<.05
						<.05				
< RTP	Agreeableness	-.041	-.765	>.05						
	Conscientiousness	-.022	-.421	>.05						
	Neuroticism	-.085	-1.635	>.05						
	Openness	.022	.451	>.05						
	Internal LOC	.070	1.395	>.05						
	External LOC	.037	.569	>.05						
	Religiosity.	.040	.609	>.05						
Path B	Risk-taking	.082	1.686	>.05	.007	.007	2.841	2.841	>.05	>.05
	<IVD									

Key:

RT- Risk-Taking Propensity

IVD - Involuntary Distraction

As shown in table 4.16, the personality traits, religiosity and locus of control (internal and external) significantly jointly predicted involuntary distraction among young drivers. The independent contribution of extraversion on risk-taking propensity ($\beta = .139$, $t = 2.816$, $p < .05$) was significant in Path A. However, the independent contribution of risk-taking propensity on involuntary distraction ($\beta = .082$, $t = 1.686$, $p > .05$) was not significant in Path B.

As shown in table 4.17, in Path C1, only the independent contribution of external locus of control ($\beta = -.191$, $t = -2.938$, $p < .01$) on involuntary distraction was significant. However, as shown in table 4.17, in Path C2, only the independent contribution of external locus of control ($\beta = -.194$, $t = -2.990$, $p < .01$) on involuntary distraction was significant. Bearing the insignificance of Path B, the influence of the mediating variable, risk propensity on the dependent variable, and involuntary distraction the test of mediation cannot be carried out in this model. This is because this violates the requirements for testing mediation as recommended by Baron and Kenny (1986) since there is no significant direct relationship between the mediator and the criterion variable.

Table 4.17: Stepwise multiple regression analysis of the mediatory role of risk-taking propensity in relation to psycho-social factors and involuntary distraction

	Variables	B	t	P	R²	R²Δ	F	FΔ	P	PΔ
Path	Extraversion	.007	.147	>.05	.064	.064	3.537	3.537	<.01	<.01
C₁										
<IVD	Agreeableness	-.066	-1.252	>.05						
	Conscientiousness	-.092	-1.796	>.05						
	Neuroticism	.053	1.039	>.05						
	Openness	-.009	-.183	>.05						
	Religiosity	.148	3.001	>.05						
	Internal LOC	.206	3.172	>.05						
	External LOC	-.191	-2.938	<.01						

Key:

IVD - Involuntary Distraction

Table 4.18: Stepwise multiple regression analysis of the mediatory role of risk-taking propensity in relation to psycho-social factors and involuntary distraction

	Variables	B	T	P	R²	R²Δ	F	FΔ	P	PΔ
Path C ₂	Extraversion	-.004	-.072	>.05	.070	.006	3.434	2.510		<.01
						>.05				
<IVD	Agreeableness	-.062	-1.194	>.05						
	Conscientiousness	-.091	-1.766	>.05						
	Neuroticism	.060	1.165	>.05						
	Openness	-.011	-.218	>.05						
	Religiosity.	.143	2.891	>.05						
	Internal LOC	.203	3.132	>.05						
	External LOC	-.194	-2.990	<.01						

Key:

IVD - Involuntary Distraction

4.7: Hypothesis seven

Risk-taking propensity would significantly mediate the influence which psycho-social factors have on proneness to distracted driving behaviour among young drivers. This was tested using stepwise multiple regression and the result is presented in Tables 4.19, 4.20 and 4.21.

Table 4.19: Stepwise multiple regression analysis of the Mediating role of risk-taking propensity in relation to personality traits, Religiosity, locus of control and PDDB

	Variables	B	T	P	R²	R²Δ	F	FΔ	P	PΔ
Path A	Extraversion	.139	2.816	<.05	.040	.040	2.130	2.130		<.05
						<.05				
< RTP	Agreeableness	-.041	-.765	>.05						
	Conscientiousness	-.022	-.421	>.05						
	Neuroticism	-.085	-1.635	>.05						
	Openness	.022	.451	>.05						
	Internal LOC	.070	1.395	>.05						
	External LOC	.037	.569	>.05						
	Religiosity	.040	.609	>.05						
Path B	Risk-taking	.292	6.241	<.01	.085	.085	38.954	38.954	<.01	<.01
<PDDB										

Key:

RTP- Risk-Taking Propensity

PDDB – Proneness to Distracted Driving Behaviour

As shown in table 4.19, the personality traits, religiosity and LOC (internal and external) significantly and jointly predicted risk-taking propensity among young drivers. Also, the independent contribution of risk-taking propensity on involuntary distraction ($\beta = .292$, $t = 6.241$, $p < .01$) was significant in Path B. Further, in Path A, the independent contribution of extraversion on risk-taking ($\beta = .139$, $t = 2.816$, $p < .05$) was significant in Path A.

As shown in Table 4.3.8 in Path C1, only the independent contribution of conscientious personality ($\beta = -.116$, $t = -2.256$, $p < .05$) and religiosity ($\beta = .131$, $t = 2.656$, $p < .01$) on proneness to distracted driving behaviour was significant. However, as shown in table 4.3.9 in Path C2, the independent contributions of conscientious personality ($\beta = -.110$, $t = -2.224$, $p < .05$), and religiosity ($\beta = .112$, $t = 2.350$, $p < .05$) on proneness to distracted driving behaviour were significant.

Table 4.20: Stepwise multiple regression analysis of the mediating role of risk-taking propensity in relation to personality traits, religiosity, locus of control and PDDB

	Variables	B	t	P	R ²	R ² Δ	F	FΔ	P
Path	Extraversion	.040	.812	>.05	.064	.064	3.495	3.495	<.01
C₁						<.01			
<PDDB	Agreeableness	-.046	-.871	>.05					
	Conscientiousness	-.116	-2.256	<.05					
	Neuroticism	.025	.479	>.05					
	Openness	-.035	-.721	>.05					
	Religiosity	.131	2.656	<.01					
	Internal LOC	.127	1.961	>.05					
	External LOC	.048	.739	>.05					

Key:

PDDB – Proneness to Distracted Driving Behaviour

Table 4.21: Stepwise multiple regression analysis of the mediating role of risk-taking propensity in relation to personality traits, religiosity, locus of control and PDDB

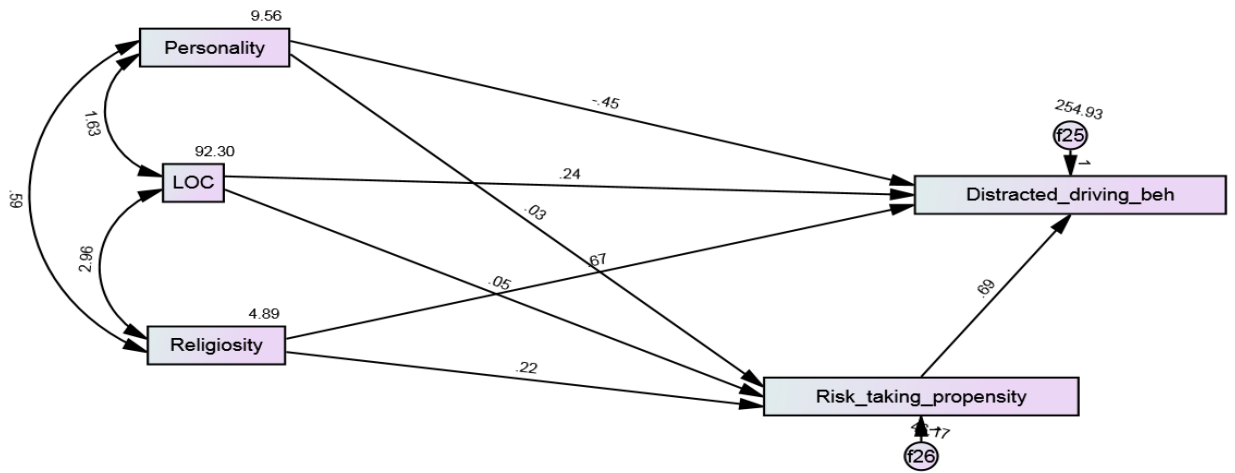
	Variables	B	t	P	R²	R²Δ	F	FΔ	P	PΔ
Path C₂	Extraversion	.001	.020	>.05	.138	.074	7.287	35.283		<.01
						<.01				
<PDDB	Agreeableness	-.034	-.682	>.05						
	Conscientiousness	-.110	-2.224	<.05						
	Neuroticism	.048	.975	>.05						
	Openness	-.041	-.883	>.05						
	Religiosity	.112	2.350	<.05						
	Internal LOC	.117	1.874	>.05						
	External LOC	.037	.590	>.05						
	Risk-Taking	.278	5.941	>.01						

Key:

PDDB- Proneness to Distracted Driving Behaviour

It should be noted that the independent contributions of the personality traits, religiosity and LOC (internal and external) in Path C1 were all reduced as a reason for the introduction of the mediating variable, the risk-taking propensity in Path C2. In addition, the primary focus in a mediation analysis is to see whether the effect of the personality traits, religiosity and LOC - independent variable on proneness to distracted driving behaviour – dependent variable could be mediated by a change in the mediating variable – risk-taking propensity. In this study, partial mediation was observed, where the risk-taking propensity only mediates part of the effect of personality trait (conscientiousness) and religiosity proneness to distracted driving behaviour, that is, the independent variables have some residual direct effect even after the mediator was introduced into the model. Hence, there seems to be the possibility of a mediation in Path C2 which was further tested with structural equation modelling as presented in figure 4.2 which is a constructed model in the existence of a mediator latent construct. This model is constructed so that the direct and indirect effects of exogenous latent constructs (predictors –personality, locus of control and religiosity) toward endogenous latent constructs (criterion –proneness to distracted driving behaviour and mediator – risk -taking propensity) could be observed.

Figure 4.2:



Hence structural equation modelling (SEM) points toward a functional relationship expressed via the conceptual model and path diagram. The models include both endogenous (dependent) and exogenous (independent) which are best signified by path diagrams: nodes represent the variables and arrows show relationships among these variables. The single straight arrow implies a causal relation from the base of the arrow to the head of the arrow. The curved two-headed arrow indicates there may be some link between the two variables.

**Table 4.22: Structural Equation Standardized Direct Effects
Using the Bootstrap Approach**

	Personality	Religiosity	LOC	Risk-Taking
Risk-taking	.014	.070	.067	.000
Proneness to distracted driving behaviour	-.082	.087	.135	.276

**Table 4.25: Structural Equation Standardized Indirect Effects
Using the Bootstrap Approach**

	Personality	Religiosity	LOC	Risk-Taking
Risk-taking	.000	.000	.000	.000
Proneness to distracted driving behaviour	.004	.019	.019	.000

Tables 4.22 and 4.23 test the significance of the mediation of risk-taking propensity. The standardized direct (unmediated) effect of personality on proneness to distracted driving behaviour is $-.082$. That is, due to the direct (unmediated) effect of personality on proneness to distracted driving behaviour when personality goes up by 1 standard deviation, proneness to distracted driving behaviour goes down by 0.082 standard deviations. The standardized indirect (mediated) effect of personality factors on proneness to distracted driving behaviour is $.004$. That is, due to the indirect (mediated) effect of personality factors on proneness to distracted driving behaviour when personality factors go up by 1 standard deviation, proneness to distracted driving behaviour goes up by 0.004 standard deviations.

The standardized direct (unmediated) effect of religiosity on proneness to distracted driving behaviour is $.087$. That is, due to the direct (unmediated) effect of religiosity on proneness to distracted driving behaviour, when religiosity goes up by 1 standard deviation, proneness to distracted driving behaviour goes up by 0.087 standard deviations. The standardized indirect (mediated) effect of religiosity on proneness to distracted driving behaviour is $.019$. That is, due to the indirect (mediated) effect of religiosity on proneness to distracted driving behaviour, when religiosity goes up by 1 standard deviation, proneness to distracted driving behaviour goes up by 0.019 standard deviations. The standardized direct (unmediated) effect of LOC on proneness to distracted driving behaviour is $.135$. That is, due to the direct (unmediated) effect of LOC on proneness to distracted driving behaviour when LOC goes up by 1 standard deviation, proneness to distracted driving behaviour goes up by 0.135 standard deviations. The standardized indirect (mediated) effect of LOC on proneness to distracted driving behaviour is $.019$. That is, due to the indirect (mediated) effect of LOC on proneness to distracted driving behaviour when LOC goes up by 1 standard deviation, proneness to distracted driving behaviour goes up by 0.019 standard deviations. Hence, the standardized indirect effect table shows that the latent constructs of personality, locus of control and religiosity have partial mediation effects toward proneness to distracted driving behaviour.

CHAPTER FIVE

DISCUSSION

This chapter provides the discussion aspect of the research work.

5.1 Discussion

5.1.1 Relationship between psycho-social factors and proneness to distracted driving behaviour among young drivers

Psycho-social factors and mediatory role of risk-taking propensity as predictors of proneness to distracted driving behaviour among young drivers were examined in this study. Specifically, the study attempted to find out which of the psycho-social factors (personality, locus of control, and religiosity would predict proneness to distracted driving behaviour among young drivers, how these would variables would significantly, jointly, predict proneness to distracted driving behaviour as well as a consideration of the impact of a mediatory variable- risk-taking?

Proneness to distracted driving behaviour in this study is viewed as the tendency of a young driver to voluntarily or involuntarily be distracted behind the wheel. For a better understanding of proneness to distracted driving behaviour, the dyad nature of driver's distraction: voluntary and involuntary was fully considered. It must also be pointed out that the same source of driver's distraction may give rise over time to both voluntary and involuntary distraction.

In general, it was discovered that psycho-social factors significantly and jointly predicted voluntary distraction among young drivers. Though independently many of the personality factors did not significantly predict voluntary distraction when risk-taking was introduced as a mediator, it was found that extraversion as a personality trait predicted voluntary distraction. From this result, it can be asserted that voluntary distraction might be predicted by psycho-social factors. Further to this, through Structural Equation Modeling

(SEM), the mediated effect of personality on voluntary distraction experienced an increase; the mediated effect of religiosity on voluntary distraction experienced an increase and mediated the effect of locus of control on voluntary distraction also experienced an increase.

Hence, the mediated effect depicts that the latent constructs of psycho-social factors have partial mediation effects toward voluntary distraction through risk-taking. However, when the psycho-social factors were subjected to individual analysis, the present study shows limited support for other personality traits in the sense that only the conscientiousness trait was predictive of proneness to distracted driving behaviour. Thus, it can be speculated if one is interested in safe driving behaviour or promoting the possibility of a reduced proneness to distracted driving behaviour among young drivers, one should be interested in conscientious individuals.

Locus of Control, both external and internal did significantly and jointly predicted proneness to distracted driving behaviour among young drivers. However, only internal locus of control did significantly and independently predict proneness to distracted driving behaviour. A possible explanation for such unsafe driving behaviour is that some young drivers with an internal locus of control who are overconfident may perceive the risks in distracted driving behaviour as being harmless and consequently, such young drivers may develop acceptance for the risks associated with the distracted driving behaviour. In a way that is worthy of attention, the results of the current study not only add to the literature on the predictive strength of internal locus of control on proneness to distracted driving behaviour but also add credence to the argument that many young drivers, especially those who are high on internality (such as driving skills and ability) may have difficulty limiting their distracted driving behaviour and may compromise their safety and that of others on the road (Holland, Geraghty, & Shah, 2010).

Religiosity, its linear influence on proneness to distracted driving behaviour was significant among young drivers. From this result, it can be asserted that proneness to distracted driving behaviour might be predicted by religiosity and may be associated with unsafe driving behaviour. The predictive strength of religiosity on proneness to distracted driving behaviour shows that young religious drivers tend to engage in aberrant behaviour as well as violate a traffic law.

5.1.2 Relationship between psycho-social factors and risk-taking propensity among young drivers

On risk-taking propensity, the result showed that the linear influence of risk-taking propensity on proneness to distracted driving behaviour was significant. In other words, as risk-taking propensity increases, proneness to distracted driving behaviour also increases. This implies that young drivers who have risky driving behaviour tendency would equally have a high tendency for distracted driving behaviour.

It was discovered that psycho-social factors significantly and jointly predicted voluntary distraction among young drivers. Though independently many of the personality factors did not significantly predict voluntary distraction when risk-taking propensity was introduced as a mediator, it was found that extraversion as a personality trait predicted voluntary distraction.

Having mediated the variables of this study using risk-taking propensity, it was found that psycho-social factors partially mediated proneness to distraction among young drivers. One may be justified to state that the strength of the influence which risk-taking propensity has on the dependent variable (proneness to distracted driving behaviour) overshadowed that of the independent variables (psycho-social factors) to an extent through voluntary distraction, implying that the existence of risk-taking propensity in the young driver may have an independent influence on proneness to distracted driving behaviour, irrespective of the personality dimensions, religiosity or locus of control. This does not however exclude the influence of religiosity, external locus of control and conscientiousness.

The prediction in hypothesis one that big five personality traits would significantly, independently and jointly predict proneness to distracted driving behaviour among drivers was not fully supported. The results show that only conscientiousness did independently predict proneness to distracted driving behaviour among young drivers. The result could be interpreted to mean that the higher the conscientiousness level of young drivers, the less likely they will be prone to distracted driving behaviour.

Conscientiousness is a personality trait, associated with order, being dutiful, being careful and self-discipline (Costa & McCrae, 1992). In other words, conscientious individuals

tend to be efficient, and organized and are less likely to be involved in risky behaviours to pursue and ultimately achieve their goals. In addition, conscientious individuals tend to believe in themselves and their abilities and have complete confidence in their ability to reach their goals and be successful (Elizabeth, 2020). Peradventure, conscientious young drivers tend to analyze driving situations and weigh the pros and cons before engaging in the use of phones behind the wheel. If to be orderly, means to be deontological, it is orderliness that it is perhaps responsible for the negative relationship between conscientiousness and proneness to distracted driving behaviour and not benefit analysis. It is important to emphasize that the conscientiousness trait is just one part of the overall personality traits of an individual. An individual still has other traits that help round out his/her personality. Although conscientiousness trait is not the only defining trait of a young individual, it may help us know why young drivers engage in distracted driving behaviour.

In line with the present findings of the study, it was reported that conscientious drivers are involved with less risky driving exercises, and suffered less road traffic crashes (Ehsani et al 2015). Also discovered is that conscientiousness had a less impact on distractions in traffic (Joanson & Fyhri, 2017). This result also suggests that conscientious young drivers are staunch rule-followers and relatively safe drivers who are less likely to participate in risky/ unsafe behaviour. Hence, it can be safely stated that conscientious individuals, especially young drivers, perform better in safe driving as also observed by Roberts et al. (2012).

However, other factors were not significantly predictive of risky driving behaviour, it was reported that openness and conscientiousness among teen drivers could independently and jointly predict proneness to distracted driving behaviour (Oyeleke, et al., 2016). In addition, it was found that higher levels of openness and conscientiousness were predictive of greater reported texting frequency and interaction with a phone while driving among young drivers (Parr et al., 2016). Hence, in the context of this study conscientious individuals, especially young drivers, perform better in safe driving. In other words, conscientiousness and safe driving are equivocal.

Even so, the present study shows limited support for other personality traits in the sense that only the conscientiousness trait was predictive of proneness to distracted driving

behaviour. Thus, it can be speculated if one is interested in promoting the possibility of a reduced proneness to distracted driving behaviour, one should be interested in conscientious individuals. This knowledge may be useful for educational campaigns for the improvement of young drivers' safety culture.

The second hypothesis of the study predicted that Locus of Control dimensions- (internal and external) will jointly and independently predict proneness to distracted driving behaviour among young drivers. It was discovered that locus of control (external and internal) did significantly and jointly predict proneness to distracted driving behaviour among young drivers. However, only internal locus of control did significantly and independently predict proneness to distracted driving behaviour. One can state that for such unsafe driving behaviour, some young drivers who are high on internal locus of control may perceive the risks in distracted driving behaviour as being harmless and consequently accept risks associated with this aberrant driving behaviour and may become highly prone to distracted driving.

The results from this study demonstrated a significant agreement between related studies that concluded that those individuals who scored high on internal factors are more frequently involved in road traffic crashes and committing violations than those individuals who reported external factors (Ozkan, & Lajunen, 2005). In addition, increased internal locus of control is closely associated with risky driving behaviour (Holland, Geraghty & Shah, 2010). Further to this, it was found that risk perception was positively linked with internal locus of control i.e., beliefs in the possibility of road traffic crashes (Mairean, Havarneanu, Popusoi, & Havarneanu, 2017).

On the contrary, drivers with external locus of control is vulnerable and may have difficulty controlling the use of their mobile phone at inconvenient times and the negative effects associated with high-frequency use may be aggravated (Li, Lepp & Barkley, 2015). Similarly, such individuals may have heightened vulnerability to mobile phone addiction but also distractibility (Bourget, 2018). Further to this, externality was positively linked with involvement in fatal road traffic crashes (Jones and Foreman, 1984). As such, both internal and external locus of control may not only be linked to road traffic crashes but also human error contributes to crashes (Ambak, Daniel, Mamat, Prasetijo & Rohani, 2016).

There is disagreement in the literature on whether internal or external locus of control is predictive of proneness to distracted driving behaviour and accident. This study found the internal to be predictive of proneness to distracted driving behaviour so that the higher the internal score the higher the rate of the proneness to distracted driving behaviour. This is contrary to many previous studies (e.g. Măirean et al., 2017; Holland, et al. 2010; Özkan, & Lajunen, 2005). While Özkan, & Lajunen (2005) reported that internals are more involved in road traffic crashes than externals (this is in agreement with the present study) and Holland, et al. (2010) reported that internality is closely associated with risky driving behaviour. Also, Măirean, et al. 2017 found out that risk perception in driving is positively linked to internality and not externality. Thus one would expect internality to be less prone to distracted driving behaviour.

In a way that is worthy of attention, the results of the current study not only add to the literature on the predictive strength of internal locus of control on proneness to distracted driving behaviour but also add credence to the argument that many young drivers, especially those who are high on internality may have difficulty limiting their mobile phone use while driving and may compromise their safety and that of others on the road. Hence, when studying a young driver's proneness to distracting driving behaviour, because of its predictive influence, driver's locus of control orientation should be considered (Walsh et al., 2008). Therefore, hypothesis two which stated that locus of control would significantly, independently and jointly predict proneness to distracted driving behaviour among young drivers was partially supported.

Hypothesis three predicted that religiosity would significantly and independently predict proneness to distracted driving behaviour among drivers. The results show that the linear influence of religiosity on proneness to distracted driving behaviour was significant among young drivers. From this result, it can be asserted that proneness to distracted driving behaviour related to religiosity and may be the distracted driving behaviour responsible for associated with unsafe driving behaviour. The predictive strength of religiosity on proneness to distracted driving behaviour shows that young drivers with high religiosity tend to engage in aberrant behaviour as well as violate a traffic law. This is because they believe in a Supreme Being guiding them and have a strong conviction in God or a higher power that is capable of prevention or reduction of consequences of risky

behaviours which includes road crashes, being apprehended by traffic officers and death (Ball et al., 2003). From the findings of this present study, young drivers with high religiosity have a high tendency for distracted driving behaviour. Also, in line with the above, it was reported that a considerable number of religious young drivers frequently engaged in unsafe and distracted driving behaviour mobile phone use and sending of messages while driving (Young et al., 2014).

This implies that a young driver whose religious beliefs are what lies behind his whole approach to life tends to be prone to distracted driving involving the use of a mobile phone. From the above findings, it was reported that religiosity had a significant relationship with positive road and traffic behaviours among young adolescent drivers (Turiano et al., 2012). It is obvious that through religion individual learns how to put limits on his behaviour and live a moderate life. Similarly, it was discovered that religiosity can increase the observance of traffic rules and regulations and subsequently with its prolongation over time may result in a reduction of road traffic crashes (Pourshams & JanFada, 2017).

In one of the studies, the participants were from Iran (Arab) where religious practices of Islam reflect virtually in all aspects of their lives compared to Ibadan, Nigeria (Africa) where diverse religions are practised. Also, beyond, the multiplicity of religion, cultural variable in religiosity and its beliefs in Nigeria might be a likely explanation for the obtained result. Therefore, the hypothesis that religiosity would significantly and independently predict proneness to distracted driving behaviour among young drivers was fully supported.

The fourth hypothesis predicted that young drivers who are high on risk-taking would significantly and independently predict proneness to distracted driving behaviour among young drivers. This implies that as risk-taking increases, proneness to distracted driving behaviour also increases. The result showed that the linear influence of risk-taking on proneness to distracted driving behaviour was significant. In other words, as risk-taking increases, proneness to distracted driving behaviour also increases. One can then state that young drivers who are highly prone to risky driving behaviour are also highly prone to distracted driving behaviour.

A distracted driver with a phone is prone to hazardous traffic situations which may be in form of a sudden manoeuvre to avoid a crash or the failure to notice a traffic signal or stop (Basu, 2020). In this direction, it was found that texting and other distracting mobile phone use among adolescents and emerging adults contribute to the high rate of fatal road traffic crashes (Haynie, et al. 2017). Similarly, a previous study did not only find high texting while driving among adolescents but also high susceptibility to risky driving behaviours (Yellman et al., 2019). This view was also shared by Sween, Ceschi, Tommasi, Sartori &Weller (2017) who found a greater frequency of texting while driving to be most strongly related to greater risk-taking for public safety.

In addition, an earlier study was found that a high percentage of young drivers display risky behaviour at wheel. It also established that speed and distractions were the key pointers to the level of risk in the profile of young drivers (Sabaté-Tomas et al., 2014). In this light, some of the risky behaviours that young and emerging adults engaged in within a metropolitan city in Nigeria were tailgating, aggressive driving, speeding, nighttime driving, and distracted driving - drinking, eating, texting, making or receiving phone calls (Obarisiagbon, 2017).

Further to this, a previous study found that the risk involved in distracted driving behaviour did not exempt any age group but cognitive distraction may have a greater influence on young drivers. This implies that different age groups have their peculiar distraction and safety concerns (Guo et al., 2017). Also, studies reported that young adult drivers are more prone to greater risk than middle-aged adults in terms of phone-related distractions. Age, driving experience and their perception of texting and driving as risky were found to be the predictors of the drivers who were less prone to text messages when driving (Olukoga et al., 2014). Younger drivers manifest greater risk-propensity than older drivers (Fernades, 2009).

The above result was also shared by a previous study that found that a high-risk group of young adults was most likely to engage in distracting activity while driving and to be at risk of crashing (Romer et al., 2014). Also, it was reported that young drivers gave weaker support for laws intended to curb this unsafe driving behaviour (Hamilton et al., 2013). Further to this, it is commonly understood that individual differences not only play a role in risky driving behaviour among young drivers but also that some young drivers have

more tendency to exhibit risky driving behaviour than others. Hence, understanding the underlying risk behaviour apart from identifying psychological mechanisms may be key to more effective prevention and intervention programs. Therefore, parents/guardians have a vital role to play in ensuring that emerging adult drivers gain valuable driving experience as well as safely guide them by rules and expectations that prevent them from engaging in risky driving behaviours (Yellman et al., 2019). Risky driving behaviour, as a serious public health issue would cause more road traffic crashes while positive driving behaviours would enhance safety traffic environment as shared by Shen et al. (2018). Parents may help develop conscientious young adults so that can be better drivers.

The fifth hypothesis of the study predicted that risk-taking propensity would significantly mediate the influence which psycho-social factors have on voluntary distraction among young drivers. It was discovered that psycho-social factors significantly and jointly predicted voluntary distraction among young drivers. Though independently many of the personality factors did not significantly predict voluntary distraction when risk-taking propensity was introduced as a mediator, it was found that extraversion as a personality trait predicted voluntary distraction. From this result, it can be asserted that voluntary distraction might be predicted by psycho-social factors.

Through mediation analysis, the effect of the psycho-social factors - independent variable on voluntary distraction could be mediated by a change in the mediating variable- risk-taking propensity. In this study, partial mediation was observed, where the risk-taking only facilitates part of the effect of religiosity on the voluntary distraction that is religiosity had some residual direct effect even after the risk-taking propensity was introduced into the model. The independent contribution of extraversion on risk-taking propensity was significant in Path A. Also, the independent contribution of risk-taking propensity on voluntary distraction was significant in Path B. Further to this, in Path C1, only the independent contribution of religiosity on voluntary distraction was significant. However, in Path C2, the independent contributions of religiosity and risk-taking propensity on voluntary phone use while driving were significant. Worthy of attention here is that the independent contributions of psycho-social factors in Path C1 were all reduced as a reason for the introduction of the mediating variable, the risk-taking propensity in Path C2.

With the mediation analysis, insight and a deep understanding of the mechanism of religiosity were gained. Hence, the mediatory role of risk-taking propensity, an intermediate variable explains how religiosity influences voluntary distraction. In the primary hypothesis of interest, there seems to be the possibility of a mediation in Path C2 which was further tested with Structural Equation Modelling (SEM).

Through the SEM: the mediated effect of personality on voluntary distraction experienced an increase; the mediated effect of religiosity on voluntary distraction distracted driving behaviour experienced an increase and mediated the effect of locus of control on voluntary phone use while driving also experienced an increase. Hence, the mediated effect depicts that the latent constructs of psycho-social factors have partial mediation effects toward voluntary distraction through risk-taking propensity.

This result was consistent with a study that found a positive link between voluntary distractions and self-reported venturesome-ness that is, drivers who have the disposition to undertake risks also susceptible to this aberrant driving behaviour (Feng, et al, 2014). Further to this, in another study, there was a strong association between self-report sensation-seeking and risky driving behaviours (Dahlen et al., 2005). In addition, the common forms of distractions is voluntary and such inattention crashes usually take place when it involves a right turn and at intersections in metropolitan areas (Wundersitz, 2019). To this effect, the engagement in voluntary distractions not only seems different to the inability of suppressing involuntary distractions but also both affect braking response (Chen, et al., 2018).

The sixth hypothesis of the study predicted that risk-taking propensity would significantly mediate the influence which psycho-social factors have on involuntary distraction among young drivers. It was discovered that the independent contribution of extraversion on risk-taking was significant in Path A. However, the independent contribution of risk-taking on involuntary distraction was not significant in Path B. In addition, in Path C1, only the independent influence of external locus of control on involuntary distraction was significant.

However, in Path C2, only the independent influence of external locus of control on involuntary distraction was significant. Based on the insignificance of Path B, the

influence of the mediatory variable, risk-taking propensity on PDDDB, and involuntary distraction, the test of mediation cannot be carried out in this model. This is because this violates the requirements for testing mediation as recommended by Baron and Kenny (1986) since there is no significant direct relationship between the mediator and the criterion variable.

Nonetheless, it was found that proneness to involuntary distraction correlated with errors and lapses leading to traffic crashes (Feng, et al 2014). Addressing distraction is a herculean task that must pay attention to several behavioural and environmental factors (Hawkes, 2019). Involuntary distracted driving behaviour may be unpredictable, unexpected, or sudden which is not initiated by the driver but tend to disturb the driver's concentration (Stutts, et al. 2005). Hence, distraction, either voluntary or involuntary, creates room for higher risk while reducing the driver's situational awareness, decision-making and performance (Rose, 2016).

It must also be pointed out that the same source of driver's distraction may give rise over time to both voluntary and involuntary distracted driving behaviour. For instance, when a mobile phone rings, the driver's attention is involuntarily diverted which may lead in turn to voluntary distraction when the driver looks for the phone, pick it up and answer the call. In other words, there is the possibility for distracting activities to evolve, from one form of engagement to another.

Further to this, a previous study suggests that drivers have the perception that mobile phone applications that reduce distracted driving can also increase safety (Oviedo-Trespacios et al. 2020). In this direction, such voluntary applications must be credible and aligned satisfactorily to the vehicle as well as the functions drivers use (Oviedo-Trespa et al., 2019). Thus, the use of phones while driving, either voluntary or involuntary should be seen as a shared responsibility among all road safety stakeholders.

5.1.3 The mediatory role of risk-taking propensity through psycho-social factors as predictors of proneness to distracted driving behaviour

Hypothesis seven predicted that risk-taking propensity would significantly mediate the influence psycho-social factors have on proneness to distracted driving behaviour among young drivers. Having mediated the variables of this study using risk-taking propensity, it

was found that risk-taking propensity partially mediated proneness to distracted driving behaviour among young drivers. Specifically, the results show that the independent contribution of extraversion on risk-taking was significant in Path A. The mediated effect of personality on proneness to distracted driving behaviour when personality increases, proneness to distracted driving behaviour also increases. However, independently many of the personality factors did not significantly predict proneness to distracted driving behaviour but when risk-taking propensity was introduced as a mediator, it was found that extraversion as a personality trait predicted proneness to distracted driving behaviour. This is because extraversion influences risk-taking propensity which in turn influences proneness to distracted driving behaviour. In other words, the extraversion's influence on proneness to distracted driving behaviour is an indirect one.

Hence, extraversion increases the influences of risk-taking propensity (an intervening variable) on proneness to distracted driving behaviour. This may be useful in explaining why extraversion seemingly led to proneness to distracted driving behaviour. This result was consistent with a study that reported that extraverts are more prone to distracted driving behaviour than their introverted counterparts especially texting while driving (McLaughlin, 2013). Also, a previous study found that highly extroverted individuals to always be in touch with others regardless of the situation of things, even when driving (John & Srivastava, 1999). Extraverts have also been found to involve in riskier behaviour and this could be traced to their tendency toward risk-taking which predisposes them to distracted driving behaviour (McLaughlin, 2013). This information may not only be helpful for the identification of young drivers at the highest risk of proneness to distracted driving behaviour but also for tailoring initiatives to reduce the rates of distracted driving, possibly bringing down incidents in this high-risk population.

From the findings of this study, the mediated effect of locus of control on proneness to distracted driving behaviour when locust of control goes up by 1 standard deviation, proneness to distracted driving behaviour goes up by 0.019 standard deviation. Specifically, the independent influence of the external locus of control was significant. This implies that the external locus of control increases the influences of risk-taking propensity (the intervening variable) on proneness to distracted driving behaviour. In other words, the risk-taking propensity (mediator) may be useful in explaining why external

Locus of Control led to an increase in proneness to distracted driving behaviour. In line with the above findings, it was reported that an individual with external locus of control does not only have heightened vulnerability to mobile phone addiction but also distractibility (Bourget, 2018). Not surprisingly, externally oriented individuals were found to be high-risk drivers (Jones and Foreman, 1984).

In addition, from the findings of this study, the independent contribution of conscientious personality was significant. Risk-taking propensity (mediator) may be useful in explaining why a young driver with less conscientious traits seemingly led to proneness to distracted driving behaviour. This implies that the higher the conscientiousness level of young drivers, the less likely they will be prone to phone use while driving. This result corroborated a previous study that reported that conscientious young drivers are not only known for safe driving but also record fewer road traffic crashes (Ehsani et al., 2015).

Further to the findings of the study, the independent contribution of religiosity was significant. The mediated effect of religiosity on proneness to distracted driving behaviour, when religiosity goes up by 1 standard deviation, proneness to distracted driving behaviour goes up by 0.019 standard deviations. This implies that religiosity affects risk-taking propensity which in turn affects proneness to distracted driving behaviour.

Thus, it can be asserted that religiosity has a causal relationship with proneness to distracted driving behaviour through risk-taking propensity and may be associated with unsafe driving behaviour. As religiosity increases, proneness to distracted driving behaviour also increases showing that young religious drivers tend to engage in this unsafe driving behaviour as well as violate traffic law concerning distracted driving behaviour. This result was supported by a previous study that revealed that several young religious individuals frequently engage in distracted driving behaviour- mobile phone use and sending of messages while driving (Young et al., 2014).

In the same vein as the findings of the study, the independent contribution of risk-taking propensity was significant. This implies that as risk-taking propensity increases, proneness to distracted driving behaviour also increases. In line with the findings, it was reported

that a high-risk group of young adults was most likely to engage in distracting activity while driving and to be at risk of crashing (Romer et al. 2014).

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter provides the summary and concluding aspects of the research work. The following outlines will be covered in this chapter; summary, conclusion and recommendations, limitations, and suggestions for further studies.

6.1: Summary

The study can be summarized as follows:

The present study shows limited support for other personality traits in the sense that only the conscientiousness trait was predictive of proneness to distracted driving behaviour. Thus, it can be speculated if one is interested in safe driving behaviour or promoting the possibility of a reduced proneness to distracted driving behaviour among young drivers, one should be interested in developing conscientious traits or training drivers for conscientiousness.

Locus of control, both external and internal did significantly and jointly predicted proneness to distracted driving behaviour among young drivers. However, only internal locus of control did significantly and independently predict proneness to distracted driving behaviour. Another explanation for such unsafe driving behaviour is that some young drivers who are high on internal locus of control may perceive the risks in use of phone while driving, an essential aspect of voluntary/involuntary distraction as being harmless and consequently, such young drivers may have indifference to risks associated with the use of phone behind the wheel and may highly be prone to distracted driving. In a way that is worthy of attention, the results of the current study do not only add to the literature on the predictive strength of internal locus of control on proneness to phone use while driving but also lend credence to the argument that many young drivers, especially those who are high on internality (such as driving skills and ability) may have difficulty limiting

their mobile phone use while driving and may compromise their safety and that of others on the road.

The linear influence of religiosity on proneness to distracted driving behaviour was significant among young drivers. From this result, it can be asserted that proneness to distracted driving behaviour might be predicted by religiosity and may be associated with unsafe driving behaviour. The predictive strength of religiosity on proneness to distracted driving behaviour shows that young religious drivers may likely engage in distracted driving behaviour as well as violate traffic law that bans distracted driving behaviour. This implies that a young driver whose religious beliefs are what lies behind his whole approach to life has a tendency to engage in distracted driving behaviour.

Even though the independent contribution of extraversion on risk-taking was significant in Path A, the independent influence of risk-taking propensity on involuntary distraction was not significant in Path B. Further to this, in Path C1, only the independent influence of external locus of control on involuntary distraction was significant. However, in Path C2, only the independent contribution of external locus of control on involuntary distraction was significant. Since there is no significant direct relationship between the mediator (risk-taking) and the criterion variable (involuntary distraction) the requirements for testing mediation as recommended by Baron and Kenny (1986) have been violated. Hence, further analysis could not be carried out on the above results. Having mediated the variables of this study using risk-taking propensity, it was found that psycho-social factors partially mediated proneness to distracted driving behaviour among young drivers.

Having mediated the variables of this study using risk-taking propensity, it was found that risk-taking propensity partially mediated proneness to distracted driving behaviour among young drivers. Specifically, the results show that the independent contribution of extraversion on risk-taking was significant in Path A. Specifically, the independent influence of the external locus of control was significant. This implies that the external locus of control increases the influences of risk-taking propensity (the intervening variable) on proneness to distracted driving behaviour. In addition, from the findings of this study, the independent contribution of conscientious personality was significant. Further to the findings of the study, the independent contribution of religiosity was significant and worthy of mention is that of the independent contribution of risk-taking

propensity was also significant. Hence, psycho-social factors through risk taking propensity partially mediated proneness to distracted driving behaviour.

6.2: Conclusion

One may conclude that the strength of the influence which risk-taking propensity has on proneness to distracted driving behaviour outweighed the role of other psychosocial variables to an extent on voluntary distraction. This implies that the presence of risk-taking propensity in the young driver may have an independent influence on proneness to distracted driving behaviour, regardless of the personality type, religiosity or locus of control. This does not however rule out the influence of religiosity, internal locus of control and conscientiousness.

Even though independently many of the personality factors did not significantly predict voluntary distraction when risk-taking propensity was introduced as a mediator, it was found that extraversion as a personality trait predicted voluntary distraction. From this result, it can be asserted that voluntary distraction might be predicted by psycho-social factors.

6.3: Limitations

Self-report data despite its advantages still has its limitations in form of social desirability, order effects (primacy or recency) or some other response biases. In addition, errors due to impression management could occur because this study required young drivers to self-report their proneness to distracted driving behaviour.

Another limitation of the current study is that the use of a sample of young drivers from the Ibadan metropolis place a restriction on the range of data. Hence, the generalisability of the findings is limited as the study only focused on young drivers in the Ibadan metropolis in Oyo state, leaving out other states in Nigeria as a country.

Notwithstanding the above limitations, self-report is a convenient and efficient way of gathering satisfactory data and adequate steps were taken to reduce these biases.

6. 4: Recommendations

Parents and driving instructors may take young drivers' personality into account when providing guidance, and establishing norms and expectations towards the reduction of distracted driving behaviour among young drivers. Especially, one should be interested in developing conscientious traits or training drivers for conscientiousness.

For the development of prevention and training programs in the field of road safety, findings of the study may enhance driving safety by influencing drivers' locus of control perceptions.

These findings that young driver whose religious beliefs are what lies behind his whole approach to life has a tendency to engage in distracted driving behaviour merits further investigation to better understand the role of religiosity as a predictive factor of proneness to distracted driving behaviour.

Having mediated the variables of this study using risk-taking propensity, it was found that risk-taking propensity partially mediated proneness to distracted driving behaviour among young drivers. These findings should be used to develop mitigating strategies for distracted driving behaviour as well as behavioural modification, while tailoring interventions to extraverted drivers, externally oriented locus of control, conscientious personality, religiously oriented and, risk-taking drivers.

With growing safety campaigns against distracted driving behaviour, understanding of associated personality factors, identification of psychological mechanisms underlying risk behaviour and putting in place effective prevention and intervention programs will go a long way in reducing the menace of distracted driving behaviour. While it is true that the mobile phone is beneficiary to the human race because it enables unlimited access to others, a reasonable number of individuals talk on the phone or text even while at the wheel which sometimes leads to road traffic crashes.

To avert road disasters and enhance safe driving culture, this unsafe driving behaviour is prohibited in Nigeria. If in United States of America, there are special cell phone zones where highway signs are popping up to remind drivers that they can pull off the road to safely make use of their mobile phones, in metropolitan cities, especially in Ibadan such

zones should be created as a way of discouraging the use of phone while driving among drivers.

It is recommended that a chosen date in a month may be dedicated to officially kick off Metropolitan Distracted Driving Safety Awareness. Workshops, rallies and classes on the dangers of distracted driving should be introduced to young and emerging adults in workplaces. Also, partnering with print and electronic media as well as local restaurants/supermarkets to broadcast/ display distracted driving messages.

Thus, road safety public education targeting high-risk young mobile phone users at wheel should emphasize the unacceptability of perceived social pressure and debunk some of the perceived benefits cited for engaging use of phones behind the wheel. In addition, stakeholders should take young drivers' personalities into consideration in regards to expectations about safe driving behaviour. For young drivers who are believed to be highly prone to this non-desirable driving behaviour due to psychosocial factors, their underlying reasons for this unsafe driving behaviour are probably not the same. Therefore, it is unlikely that a single measure towards addressing this social and psychological menace on the highways will yield a significant improvement in road safety.

Hence, employing a range of interventions such as sensitizing teenagers on the dangers of distracted driving behaviour - by infusing it into their school curriculum, and making sure that various registered driving schools during their training section on defensive driving techniques lay more emphasis on restricting mobile phone communication among young drivers. Also, religious organisations should lay more emphasizes on behaviour modification that discourages the use of the phone on the wheel among youth. Employing a range of interventions among young drivers that are prone to distracted driving behaviour, will not only reduce its prevalence but also will promote safe driving culture.

6.5: Contributions to Knowledge

- The study first contributes to the growing literatures on distracted driving behaviour among young drivers in Ibadan. It was discovered that psycho-social factors significantly and jointly predicted voluntary distraction among young drivers. In other words, an action involving the use of a phone that is initiated by the driver which allows him to alter the driving behaviour to compensate for being

distracted (such as making/receiving a phone call, or sending a text message) was significantly and jointly predicted by psycho-social factors.

- Second, it was shown that the strength of the influence which risk-taking propensity has on proneness to distracted driving behaviour driving outweighed the role of other psychosocial variables to an extent on voluntary distraction- that is the willingness to engage in the use of phone behind the wheel. This implies that the presence of risk-taking propensity in the young driver may have an independent influence on proneness to distracted driving behaviour, regardless of the personality type, religiosity or locus of control. This does not however rule out the influence of religiosity, internal locus of control and conscientiousness.
- In addition, risk-taking propensity, the result showed that the linear influence of risk-taking propensity on proneness to distracted driving behaviour was significant. In other words, as risk-taking propensity increases, proneness to distracted driving behaviour also increases. This implies that young drivers who have highly risky driving behaviour tendency would equally have a high tendency for distracted driving behaviour.

6.6: Suggestion for Further Research Studies

Further studies could be carried out on socio-demographic factors, personality traits and the mediating role of job stress as predictors of phone use while driving among older adults. Also, this study suggests that future studies should sample beyond young drivers, if possible, carry out a comparative study on the difference in proneness to phone use while driving among young and older drivers.

REFERENCES

- Abayomi, O., Babalola, O. R., Olakulehin, O.A. and Ighoroje, M. 2016. Drink driving and risky behaviour among university students in southwestern Nigeria-Implications for policy development, *Traffic Injury Prevention*, 17(4), 330-335.
- Adeola, R. and Gibbons, M. 2013. Get the Message: Distracted Driving and Teens. *Journal of Trauma Nursing*, 20(3), 146-149.
- Adeyemi, O. 2021. The Association of Mobile Phone Addiction Proneness and Self-reported Road Accident in Oyo State, Nigeria. <https://www.semanticscholar.org/paper/The-Association-of-Mobile-Phone-Addiction-Proneness-Adeyemi/661e9b9818a968434406793ea127c7fe2fef0ce5> Accessed 23rd September, 2021.
- Aghamolae, T., Glanbarnejad, A., Abdolhamidtajvar, A., Asadiyan, A. and Ashoogh, M. 2013. Prediction of Driving Behaviours Base on Theory of Planned Behaviour (TPB) Model in Truck Drivers. *Life Science Base Journal*, 10(12), 80-84.
- Agresti A, and Finlay, B. 2008. *Statistical Options for the Social Sciences*, 4th ed. Upper Saddle River, NJ: Prentice Hall.
- Ahangari, S., Jeihani, M., Salahshour, B. and Ndegwa, M. 2020. A Comprehensive Analysis of Distracted Driving Using a Driving Simulator. *International Journal for Traffic and Transport Engineering*, 10 (2), 252 – 265.
- Al-Balbissi, A.H. 2003. Role of Gender in Road Accidents. *Traffic Injury Prevention* 4(1), 64-73.
- Al Reesi, H., Freeman, J., Davey, J., AlAdawi, S. and Maniri, A. 2018. Measuring risky driving Behaviours among young drivers: Development of a scale for the Oman setting. *Transportation Research Part F: Traffic Psychology and Behaviour*, 55, 101-134.
- Ajzen, I. 1991. Theory of Planned Behaviour. *Organisational Behaviour and Human Decision Processes*, 50 (2), 179-211.
- Akande, T.M. and Ajao, M.S. 2006. Awareness of Hazards, Use of GSM Mobile Phone among Non-Commercial Drivers in Ilorin, Nigeria. *Annals of African Medicine*, 5(4), 166-169.
- Akhmetshin, E.M., Kovalenko, K.E., Yavkin, G.P., Shchetinina, E.V., Borodina, N.V. & Marochkina, S. S. 2018. Problems of Formation Driving Skills in the Educational Process of Driving Schools. *Journal of Entrepreneurship Education*, 21(2), 1-12.
- Akinniyi, R. J., Akinnawo, E. O., Akpunne, B. C. and Oyeleke, J. T. 2019. The Predictive Influence of Demographic and Personality Traits on Risky Driving Behaviour among Traffic Offenders in Osun State, Nigeria. *Current Journal of Applied Science and Technology*, 35(4) 1-12.

- Akinyemi, T.F. and Onuka, A.U. 2012. The Effectiveness of FRSC Public Education Programme on Drivers' Road Traffic Habit in Lagos and Oyo States of Nigeria. *British Journal of Arts and Social Sciences*, 6(1), 129-139.
- Alfonsi, R., Ammari, A., and Usami, D. S.2018. Lack of driving experience, European Road Safety Decision Support System. Developed by the H2020 Project Safety Cube. Retrieved 27th July, 2020, from www.roadsafety-dss.eu.
- Allahyari, T., Saraji, G.N., Adi, J., Hossini, M., Iravani, M., Younesian, M. and Kass, S.J. 2008. Cognitive Failures, Driving Errors and Driving Accidents. *International Journal of Occupational Safety and Ergonomics*, 14(2), 149-58.
- Allen, S., Murphy, K., and Bates, L. 2017. 'What Drives Compliance? The Effect of Deterrence and Shame, Emotion on Young Drivers' Compliance with Road Laws,' *Policing and Society* 27, 884-898.
- Allport, G. 1966. The Religious Context of Prejudice. *Journal for the Scientific Study of Religion*, 5(3), 447-457.
- Allport G.W, and Ross, J.M. 1967. Personal Religious Orientation and Prejudice. *Journal of Personality and Social Psychology*, 5: 432-443.
- Alm, C. and Lindberg, E. 2000. Perceived Risk, Feelings of Safety and Worry Associated with Different Travel Modes. *Pilot Study*. KFTS Madeline 7:1 - 34.
- Ambak, K. Daniel, B.D., Mamat, Z., Prasetijo, J. and Rohani, M. 2016. The Effect Locus of Control on Driving Behaviour among Malaysian Young Drivers. *Journal of Engineering and Applied Sciences*, 11 (20), 11812-11814.
- Ameri, Z., Mirzakhani, F. and Nabipour, A. 2016. The Relationship between Religion and Risky Behaviors among Iranian. University Students. *Journal of Religion and Health*, 56, 1-13.
- Arthur, W., & Doverspike, D. 1992. Locus of control and auditory selective attention as predictors of driving accident involvement: A comparative longitudinal investigation. *Journal of Safety Research*, 23(2), 73-80.
- Asbridge, M., Brubacher, J. R., and Chan, H. 2013. Cell phone use and traffic crash risk: A culpability analysis. *International Journal of Epidemiology*, 42(1), 259-267.
- Association for Psychological Science 2018. How Boring Roads Lead to Distracted Driving. Retrieved 19th October, 2020, from <https://www.psychologicalscience.org/news/motr/how-boring-roads-led-to-distracted-driving.html>.
- Association of British Insurers 2012. Improving the Safety of Young Drivers. Retrieved 20th August 2020, from <https://www.abi.org.uk/globalassets/sitecore/files/documents/publications/public/migrated/motr/abi-guide-to-improving-the-safety-of-young-drivers.pdf>.

- Atchley, P., Hadlock, C. and Lane S. 2012. Stuck in the 70s: *Accident Analysis and Prevention*, 40, 279-284.
- Atlanta Personal Injury Law Group, 2020. Preventing Busy Professionals from Distracted Driving. Retrieved 8th September 2020, from <https://atlinjurylawgroup.com/blog/professionals-distracted-driving/>
- Atombo, C., Wu, C., Tettehfiio, E. O. and Agbo, A. A. 2017. Personality, Socioeconomic status, Attitude, intention and risky driving behaviour. *Cogent Psychology*, 4(1), 376- 424.
- Aworemi, J.R., Abdul-Azeez, I. A. and Olabode, S. O. 2010. Analytical study of the Causal factors of road traffic crashes in southwestern Nigeria. *Educational Research*, 14, 118-124.
- Bailey, S. K. T., Schroeder, B. L. and Sims, V. K. 2015. Unsafe Texting and Socially Problematic Texting: Need for Cognition as an Underlying Predictor. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* 59.1: 971–975. Retrieved 30th September, 2020, from <https://doi.org/10.1177/1541931215591279>.
- Ball, J., Armistead, L. ad Austin, S. 2003. The relationship between religiosity and Adjustment among African-American, female, urban adolescents. *Journal of Adolescence*, 26 (4), 431-446.
- Balogun, S., Mphele, S., Selemogwe, M. and Kote, M. 2013. Who Owns the Road? Exploring Driver and Pedestrian Behaviour at Zebra/Pedestrian Crossings in Gaborone, Botswana. *British Journal of Arts and Social Sciences*, 13(1), 121-13.
- Balogun, S., Shenge, N. & Oladipo, S. 2012. Psychosocial factors influencing aggressive Driving among commercial and private automobile drivers in Lagos. *The Social Science Journal*, (49), 83-89.
- Baron, R. and Kenny, D. 1986. -The moderator-mediator variable distinction in Social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173 -1182. Retrieved 10th November, 2019, from 10.1037//0022-3514.51.6.1173.
- Basu, A. 2020. The Impact of Phone Use While Driving. Retrieved 1st September, 2020, from <https://healinglaw.com/blog/impact-of-phone-use-while-driving/>.
- Bates, L., Davey, J., Watson, B., King, M. and Armstrong, K. 2014. Factors Contributing To Crashes among Young Drivers. *Sultan Qaboos University Medical Journal*, 14, 297-305.
- Bates, L. & Anderson, L. 2019. Young Drivers, Deterrence Theory and Punishment Avoidance: A Qualitative Exploration. *Journal of Policing*, 1(1), 1-14.
- BBC News Online 2016. Deadly distraction of driving while on your mobile. Retrieved 10th September, 2018 <https://wwwThe deadlier/news/uk-37857416>.

- BBC News Online 2017. FOMO: How the Fear of Missing Out drives social Media 'addiction'. Retrieved 10th September, 2018, from <https://www.bbc.com/news/technology-39129228>.
- Beckman, V. 2020. How Distracted drivers Cause Accidents. Retrieved 19th September, 2020, from <https://www.vilesandbeckman.com/how-distracted-drivers-cause-accidents/>.
- Bender A. and Crundall, D. 2008. Role of gender and driver behaviour in road traffic Crashes. *International Journal of Crashworthiness*, 13, 331-336.
- Bergen, G., West B.A., Luo, F., Bird, D.C., Freund, K., Fortinsky, R.H. and Staplin L. 2017. How do older adult drivers self- regulate? Characteristics of self -regulation classes defined and latent class analysis. *Journal of Safety Research*, 61, 205-210.
- Bergmark R.W., Gliklich, E., Guo, R. and Gliklich, R. E. 2016. Texting while driving: The development and validation of the distracted driving survey and risk score among young adults. *Injury and Epidemiology*, 3, 7-21.
- Bingham, C.R., Zakraisek. J.S., Almani F. Shope, J.T. and Saver, T.B. 2015. Do as I say, not as I do: Distracted driving behavior of teens and their parents. *Journal of Safety Research*, 55, 21-29.
- Bhatoe H.S. 2010 Youthful Driving, Parents and Peers. *Indian Journal of Neurotrauma* 7(1), 1-4.
- Boboc, R.G., Voinea, G.D., Buzdugan, I.D. & Antonya, C. 2022. Talking on the Phone While Driving: A Literature Review on Driving Simulator Studies. *International Journal of Environmental Research and Public Health*, 19, 10554.
- Bone, S.A. and Mowen. J.C. 2006. Identifying the traits of aggressive and distracted drivers:A hierarchical trait model approach. *Journal of Consumer Behaviour*, 5, 454-464.
- Boone, C., & Hendriks, W. 2009. Top management team diversity and firm performance: Moderators of functional -background and locus-of-control diversity. *Journal of Management Science*, 55,165-180.
- Bourget, I.M. 2018. On Hold: Relationships in the Age of Mobile Phone Distraction. In BSU Honors Program Theses and Projects. Item 299. Retrieved 10th September, 2019, from http://vc.bridgew.edu/honors_proj/299 Copyright © 2018 Isabel M. Bourget.
- Brace,.L., Young, K.L. and Regan, M. A. 2007. Analysis of the literature: The use of Mobile phones while driving. *Analysis* 37(3) 261-265.
- Braitman, K.A. and Braitman A.L, 2017. Patterns of Distracted Driving Behaviors among Young Adult Drivers: Exploring Relationships with Personality Variables. *Transportation Research Part F: Traffic Psychology and Behaviour*, 46,169-177.

- Brown B.B. and Larson, J. 2009. Peer Relationship in Adolescence Handbook of Adolescent Psychology, Contextual Influences on Adolescent Development. John Wiley & Sons; Hoboken, *National Journal*, 3(2), 74-103.
- Brown, S. R. 2006. "Religious orientation and flow". Master's Theses and Doctoral Dissertations. Retrieved 1st March, 2021 from <https://commons.emich.edu/theses/77>.
- Brownyard, T. 2018. Behind the Wheel: Stopping Distracted Driving. Retrieved 19th September, 2020, from asisonline.org.
- Buckley, L. Chapman, R.L. and Sheehan, M. 2013. Young Driver Distraction: State of The Evidence and Directions for Behaviour Change Programs. *Journal of Adolescent Health* 54. 516-520
- thett, S., and Phillips, J. G. 2008. Personality and self-reported mobile phone use. *Computers in Human Behaviour* 24,346-360.
- Byrne, K., Silasi-Mansat, C. and Worthy, D. 2014. Who Chokes Under Pressure? The Big Five Personality Traits Decision-Making under Pressure. Retrieved 1st September, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5376094/>.
- Caird, J. K., Willness, C. R., Steel, P. and Scialfa, C. 2008. A meta-analysis of the effects of Cell phones on driving, Wellness Performance. *Accident Analysis & Prevention*, 40 (4), 1282-1293.
- Caird, J. K., Johnston, K. A., Willness, C. R., Asbridge, M., and Steel, P. 2014. A meta-analysis of the effects of texting on driving. *Accident Analysis and Prevention*, 71, 311-318.
- Campbell, H. 2006. 'Texting the Faith: Religious Users and Cell Phone Culture.' In: A.P. Kavoori & N. Arceneau (1st ed.). *The Cell Phone Reader: Essays in Social Transformation*. New York: Peter Lang, 139-154.
- Campbell, H 2007. 'What Hath God Wrought? Considering How Religious Communities Culture (or Kosher) Influence the Cell Phone'. *Journal of Media and Cultural Studies* 21 (2), 191-203.
- Carpentier, A. Brijis. K, Declercg, K. BriPhone, Daniel, S. and Wets G. 2014. The effect of family climate on risky driving of young novices: the moderating role of attitude and locus of control. *Accident Analysis & Prevention* 73, 53-64.
- Carter, L. & McBride, M. 2015. Distracted Driving among Teens: How Can we educate and Protect Our Youth. *Journal of Procedia Engineering* 107(1), 485-487.
- Carter, P. M., Bingham, C. R., Zakrajsek, J. S., Shope, J. T., and Sayer, T. B. 2014. Social norms and risk perception: Predictors of distracted driving behaviour among novice adolescent drivers. *Journal of Adolescent Health*, 54(5), 32-41.

- Castanier, C., Deroche, T., and Woodman, T. 2013. Theory of planned behaviour and Road violations: The moderating influence of perceived behavioural control. *Transportation Research Part F: Traffic Psychology and Behaviour*, 18:148-158.
- Cassarino, M. and Murphy, G. 2018. 'Reducing Young Drivers' Crash Risk: Are we there yet? An Ecological Systems- based Review of the Last Decade of Research.' *Transportation Research Part F: Traffic Psychology and Behaviour*, 56:54-73.
- CBS News, 2014. Are young female drivers any safer than males? Retrieved 12th June, 2020, from <https://www.cbsnews.com/news/are-young-female-drivers-any-safer-than-males/>.
- Charlton, S 2009. Driving while conversing: Cell phones that distract and Passengers who react. *Accident Analysis & Prevention*, 1,160-173.
- Chen, H.-Y. W., and Do B. 2016. Whatever technology-based distractions? A structural equation model on social-psychological factors of technology-based Driver distraction engagement. *Accident Analysis & Prevention*, 91:166-174.
- Chen H-YW, Hoekstra-Atwood L, Donmez B. 2018. Voluntary and Involuntary-Distraction Engagement: An Exploratory Study of Individual Differences. *Human Factors*. 60 (4), 575-588.
- Chliaoutakis, J. E., Demakakos, P. T., Tzamalouka, G., Bakou, V., Koumaki, M. and Darviri, C. 2002. Aggressive behaviour while driving as predictor of self-reported car crashes. *Journal of Safety Research*, 33, 431–443.
- Chliaoutakis, J. E., Koukouli, S. A., Lajunen, T., and Tzamalouka, G. 2005. Lifestyle traits as predictors of driving behaviour in urban areas of Greece. *Transportation Research, Part F* 8,413-428.
- Costa, P. T., and McCrae, R. R. 1992. *NEO PI-R Professional Manual*. Odessa, FL: *Psychological Assessment Resources*. (3rd ed). New York, NY: Guilford.
- Collier, A. 2012. Peer pressure is part of Texting and driving – teens can't say no Retrieved 25th May 2020 from <https://www.csmonitor.com/The-Culture/Family/Modern-Parenthood/2012/04can't-say-anymore-is-part-of-the-ting-and-driving-teens-can-t-say-no>.
- Consumer Reports News, 2012. Can technology prevent distracted driving? Retrieved 31st May, 2020, <https://www.consumerreports.org/cro/news/2012/06/can-technology-prevent-distracted-driving/index.htm>.
- Consumer Reports, 2017. Technology That Can Reduce Driving Distractions and Their Dangers. Retrieved 1st June, 2020, from <https://www.consumerreports.org/car-safety/technology-that-can-reduce-driving-distractions-dangerscar-safety-features/>.

- Curry, E.A., Mirman, J.H. Kallan, M.J., Winston, F.K. and Durbin, D. R. 2012. Peer Passengers: How Do They Affect Teen Crashes? *Journal of Adolescent Health*, 50, 588-594.
- Cvahte Ojsteršek, T. and Topolšek, D. 2019. Influence of drivers' visual and cognitive Attention on their perception of changes in the traffic environment. *Europe. Transportation. Research. Review* 11: 40-52. Retrieved 2nd June, 2020, from <https://doi.org/10.1186/s12544-019-0384-2>.
- Dahlen, E. R., Martin, R. C., Ragan, K., and Kuhlman, M. M 2005. Driving Anger, Sensation Seeking, Impulsiveness, and Boredom Proneness in the Prediction of Unsafe Driving. *Accident Analysis & Prevention* 37, 341-348.
- Dahlstrom, F. 2019. Road Rules and Driver Distraction. Retrieved 3rd October, 2020, from <https://www.gotocourt.com.au/legal-news/road-rules-driver-distraction/>
- Daise, K. 2017. Keep your employees safe behind the wheel. Retrieved September, 2020, from <http://iretiworkerscomp.com/keep-employees-safe-behind-wheel/>.
- Davey, J.D. and Freeman, J.E. 2011.Improvingg Road Safety through Deterrence-Based Initiatives. *Sultan Qaboos University Medical Journal*, 11(1), 29-37.
- Davies, H. 2019. Religious Devices: A Survey of Technologies of Worship. *Journal of Communication*. Retrieved 2nd March, 2021, from <https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1081&context=cpo>
- Deery, H. A. 1999. Hazard and risk perception among young novice drivers. *Journal of Safety Research*, 30, 225-236.
- Densu, S.N. 2014. Distracted Driving: Cellular Phone use among Motorists in the Sekondi-Takoradi Metropolis, Ghana. *Civil and Environmental Research* 6 (4), 21-29.
- Diegelmann, S., Ninaus, K. and Terlutter, R. 2020. Distracted driving prevention: an analysis of recent UK campaigns. *Journal of social Marketing*, 10 (2), 243-264.
- Digital, 2016. Distracted driving: How Social Media Habits are making Roads More Dangerous. Retrieved 2nd June, 2020, from <https://www.adweek.com/digital/matt-keegan-carfax-guest-post-distracted-driving/>.
- Distracted Driving, 2020. Retrieved 28th August 1990 From <https://www.bestonlinetrafficschool.co/distracted-driving/>.
- Doroudgar, S., Chuang, H., Perry, P., Thomas, K., Bohnert, K. and Canedo, J. 2016. Driving Performance Comparing Older versus Younger Drivers. *Traffic Injury Prevention*, 18, 10-21.
- Dorsch, F. 2015. Focused daydreaming and mind-wandering. *Review of Philosophy and Psychology* 6 (4), 791-813.

- Donmez, B., Boyle, L. and J Lee, J.D. 2010. Differences in Off-Road Glances: Effects on Young Drivers' Performance. *Journal of Transportation Engineering*, 136 (5), 403-409.
- Drews, F.A., Pasupathi, M. and Strayer, D.L. 2008. Passenger and Cell-phone Conversation during Simulated Driving. *Journal of Experimental Psychology Applied*, 14, 392-400.
- Ducey J.A., Malave R., Zahedi, E and Bidaisee, S. 2018. Cross-sectional Study Investigating Texting and driving in Grenada, West Indies. School. *Journal of Applied Scientific Research*, 1(6), 57-62.
- Duhl, L. 2017. No Text Is Worth a Life – The Dangers of Distracted Driving. Retrieved 20th June, 2020, from <https://publichealth.wustl.edu/no-text-is-worth-a-life-the-dangers-of-distracted-driving/>.
- Dunlap, E.S. 201. *The Comprehensive Handbook of School Safety*. CRC Press. Taylor & Francis Group.
- Dyton, J. 2019. Multitasking behind the wheel can have disastrous Retrieved 28th May, 2020, from <https://www.geico.com/livinDaytonving/auto/car-safety-insurance/emerging-technology-to-prevent-distracted-driving/>.
- Ebaugh, H.R., Chafetz, J.S. and Pipes, P.F. 2006. Where's the faith in faith-based Organizations? Measures and correlates of religiosity in faith-based social service coalitions. *Social Forces*, 84 (4), 2259-2271.
- Edmunds, 2015. Can Technology Prevent Teen Distracted Driving? Retrieved 9th May, 2020, from <https://www.edmunds.com/car-safety/can-technology-prevent-teen-distracted-driving.html>.
- Edwards, S. and Wndersitz, L. 2019. *A Distracted driving: Prevalence and motivations*. The University of Adelaide, South Australia: Centre for Automotive Safety Research.
- Ehsani, J., Li, K., Simons-Morton, B., Tree-McGrath, C.A., Perlus, J., O'Brien, F. and Klauer, S. 2015. Conscientious personality and young drivers' crash risk. *Journal of Safety Research* 54:83-7. Retrieved 2nd September 2020, from <https://www.ncbi.nlm.nih.gov/pubmed/26403906>.
- Eid, H.O. and Abu-Zidan, F.M. 2017. Distraction-related Road traffic cfom HTTPS. *Africa Health Sciences*, 17 (2), 491-499.
- Elander, J., West, R., and French, D. 1993. Behavioural Correlates: Individual Differences in Road-Traffic Crash Risk: An Examination of Methods and Findings. *Psychological Bulletin*, 113(2), 279 - 294.

- Elizabeth, T. 2020. Dimensions of Personality: Conscientiousness and Agreeableness. Retrieved 21st November 2020, from <https://www.retorio.com/blog/conscientiousness-and-agreeableness>.
- Ellison, C. G. 1998. Introduction to symposium: Religion, health and wellbeing. *Journal for the Scientific Study of Religion*, 37, 692-694.
- Emenike, G.C. and Kanu, C.A. 2017. Drivers Distraction and Road Traffic Crashes in Port Harcourt Metropolis, River State, Nigeria. *International Journal of New Technology and Research*, 3, 1-7.
- Erezi, D. 2022. Canadian province tells Nigerian appointed justice minister to step aside. Retrieved 20th January, 2022. <https://guardian.ng/news/madu-nigerian-appointed-justice-minister-in-canada-told-to-step-aside/>.
- European Commission, 2018. Driver Distractions. Retrieved 13th May, 2020, from https://ec.europa.eu/transport/road_safety/sites/roadsafety/files/pdf/ersosynthesis2018-driverdistractionpdf.
- European Transport Safety Council, 2015. Managing Young Drivers at Work. Retrieved 8th September, 2020. from https://etsc.eu/wpcontent/uploads/ETSC_praise_young_drivers.pdf.
- Farah, H., Zatmeh, S., Toledo, T. and Wagner, P. 2016. Impact of distracting activities and drivers' cognitive failures on driving performance. *Advances In Transportation Studies an International Journal*, 1, 71-82.
- Febres, J.D., Mohamadi, F., Mariscal, M.A., Herrera, S. and García-Herrero, S. 2019. The Role of Journey Purpose in Road Traffic Injuries: A Bayesian Network Approach. *Journal of Advanced Transportation*. 1.1-10. Retrieved 20th September, 2019, from <https://doi.org/10.1155/2019/6031482>.
- Feng, J. and Donmez, B. 2013. Designing Feedback to Induce Safer riving Behaviours:A Literature Review and a Model of river-feedback interaction. Technical Report Submitted to Toyota Collaborative Safet y Research Center (CSRC). Retrieved 20th September, 2019. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.699.8009&rep=rep1&type=pdf>.
- Feng, J., Marulanda, S. and Donmez, B. 2014. Susceptibility to Driver Distraction Questionnaire (SDDQ): Development and Relation to Relevant Self-Reported Measures. Retrieved 23rd.December, 2019.
- Fernades, F. 2009. The role of risk-propensity in the risky driving of younger drivers. *Journal of Accident Analysis & Prevention*, 41, 25-35.
- Ferreira, A., Luis F. Martínez L and Guisande M. 2009. Risky Behaviour, Personality Traits and road accidents among university students. *European Journal Educational & Psychology*, 2, 79-98.

- Foreman, A.M, Hayashi Y, Friedel J.E, and Wirth, O. 2019. Social Distance and Texting While Driving: A behavioral Economic Analysis of Social Discounting. *Traffic Injury Prevention*, 20(7), 702-707.
- Fraschetti, A., Cordellieri, P., Lausi, G., Mari, E., Paoli, E., Burrai, J., Quagliari, A., Baldi, M., Pizzo, A. & Giannini, A.M. 2021. Mobile Phone Use “on the Road”: A Self-Report Study on Young Drivers. *Frontier in Psychology*, 12, 620-653.
- Freydier, C., Berthelon, C., and Bastien-Toniazzo, M. 2016. Does early training Improve Driving skills of young novice French drivers? *Accident Analysis and Prevention*, 96,228-236.
- Friedman, 2020. The Dangers of using social media While driving. Retrieved 10th October, 2020 from <https://www.drivesafer.com/blog/the-dangers-of-using-social-media-while-driving-2/> .
- Frontiers, 2017. Mind wandering is common during driving: Scientists investigated potentially dangerous day-dreaming in drivers, and found that it is very common, and produces distinctive brain activity. Science Daily. Retrieved October 21, 2020 from www.sciencedaily.com/releases/2017/08/17031101452.htm.
- FRSC, 2018. RS 11.3, Ibadan Monthly Report for Oyo State Driver’s Licence, Onireke, Ibadan.
- Fukamizu 2007. “Internet Use among Religious Followers: Religious Post modernism In Japanese Buddhism” Retrieved 12th April, 2018.
- Furnham, A. and Saipe, J. 1993. Personality Correlates of Convicted Drivers. *Personality & Individual Differences*, 14(2), 329 - 336.
- Galera, C., Orriols, L., M'Bailara, K., Laborey, M., Contrand, B., Ribéreau-Gayon, R., Masson, F., Bakiri, S., Gabaude, C., Fort, A., Maury, B., Lemercier, C., Cours, M., Bouvard, M. and Lagarde, E. 2012. Mind wandering and driving: Responsibility case-control. *BMJ (Clinical research edition)*. Retrieved 18th modernism20, from 345. E8105. 10.1136/bmj. e8105.
- Galovski, T. E., and Blanchard, E. B. 2004. Road rage: A domain for psychological Intervention? *Aggression and Violent Behaviour*, 9(2), 105-127.
- Gavino, M. 2015. The Role of Traffic Locus of Control to the Relationship of Extroversion and Risky Driving Behaviors. Retrieved 1st September, 2020, from https://www.researchgate.net/publication/282972533_The_Role_of_Traffic_Locus_of_Control_to_the_Relationship_of_Extroversin_and_Risky_Driving_Behaviors.
- Gershon P., Zhu C., Klauer S.K., DiBMJs, T. & Simons-Morton B. 2017. Teens' distracted driving behavior: Prevalence and predictors. *Journal of Safety Research* 63, 157-163.

- Gershon, P., Ehsani, J., Zhu, C., Klauer, S., Dingus T. and Simon- Morton, B. 2018. Crash Risk and Risky Driving Behavior among Adolescents during Learner and Independent Driving Periods. *Journal of Adolescent Health*, 63.5: 568-574.
- Gil-Jardiné, C., Née, M., Lagarde, E., Schooler, J. Contrand, B., Orriols, L. and Galera, C. 2017. The distracted mind on the wheel: Overall propensity to mind wandering is associated with road crash responsibility. Retrieved 21st October, 2020.
- Glendon, A. I., Dorn, L., Davies, D. R., Matthews, G., & Taylor, R. G. 1996. Age and Gender Differences in Perceived Accident Likelihood and Driver Competencies. *Risk Analysis*. 16.6:755-762.
- Gray, K.E. 2016. The Keys to Defensive Driving. Retrieved 19th May, 2020, from <https://kidshealth.org/en/teens/driving-safety.html>
- Griffin, A. 2017. Adolescent Neurological Development and Implications for Health and Well- Being. *Journal of Healthcare* 5 (4), 62-69.
- Guo, F., Klauer, S.G., Fang, Y., Hankey, J.M., Antin, J.F., Perez, M.A., Lee, S.E. and Dingus, T.A. 2017. The effects of age on crash risk associated with driver distraction, *International Journal of Epidemiology* 46 (1), 258-265.
- Gupta, P.O., Burns D.J. and Boyd H. 2016. Texting While Driving: An Empirical Investigation of Students' Attitudes and Behaviors, *Information Systems Management*. *The Science*, 33(1), 88-101.
- Haley, S. 2010. Peer Pressure - Driving under the Influence (How to make Well-Being crash, Part 3) Retrieved 28th May, 2020, from <http://www.skilldriver.org/PeerPressure-DrivingUnderTheInfluence.pdf>.
- Hamilton, B. C., Arnold, L.S. and Tefft, B.C. 2013. *Distracted and Risk-Prone Drivers*. AAA Foundation for Traffic Safety. Washington, DC 20005.
- Hartos, J. Eitel, P. Haynie, D. and Simons-Morton, B. 2000. Can I Take the Car? Relations among Parenting Practices and Adolescent Problem-Driving Practices. *Journal of Adolescent Research*, 15, 352-367.
- Hartos, J. L., Beck, K. H. and Simons-Morton, B. G. 2004. Parents' Intended Limits on Adolescents Approaching Unsupervised Driving. *Journal of Adolescent Research*, 19 (5), 591-606.
- Hassani, S., Kelly E.H., Smith, J., Thorpe, L., Sozr, F.H., Atchley S., Larson, D. and Vogel L.C. 2017. Preventing Distracted Driving Among College Students: Addressing Smartphone Use. *Accident Analysis Prevention*, 99, 297- 305.
- Hastings, C. 2017. Mind wandering is common during driving. Retrieved 22nd October, 2020, from, <https://blog.frontiersin.org/2017/09/11/frontiers-in-human-neuroscience-driver-distraction-daydreaming-mind-wandering/>.

- Hawkes, E. 2019. Drivers on Distractions. Retrieved 3rd October, 2020, from <https://www.rsc.wa.gov.au/RSC/media/Documents/Resources/Driver-Distractions-INFO-SHEET.pdf>.
- Hayashi, Y. Friedel, J. Foreman, A. and Wirth, O. 2019. A Behavioral Economic Analysis of Demand for Texting while Driving. *The Psychological Record*, 69 (2): 225–237.
- Heck K.E. and Carlos R.M. 2008. Passenger distractions among adolescent drivers. *Journal of Safety Research*, 39, 437- 443.
- Hoekstra-Atwood, L., Chen, H.-Y. W., & Donmez, B. 2016. Driving Under Involuntary Distraction and Varied Perceptual Loads. Proceedings of the Human Factors and Ergonomics Society Annual Meeting 60:1, 1869–1873. <https://doi.org/10.1177/1541931213601426>.
- Hoffman, B.R., Sussman S, Unger J.B. and Valente, T.W. 2006. Peer Influences on Adolescent Cigarette Smoking: A Theoretical Review of the Literature. *Journal of Substance Use/ Misuse*, 41,103-155.
- Holland, C., Geraghty, J. and Shah, K. 2010. Differential moderating effect of locus of control on effect of driving experience in young male and female drivers. *Personality and individual differences*, 48 (7), 821-826.
- Hooijdonk, R. V. 2017. New software puts an end to distracted driving behaviour: no more texting while driving. Retrieved 31st August, 2020, from <https://www.richardvanhooijdonk.com/blog/en/new-software-puts-an-end-to-distracted-driving-behaviour-no-more-texting-while-driving/>.
- Homes, J. & Alaniz 2019. Every car infotainment system Retrieved, 3rd October, 2020, from <https://www.cnet.com/roadshow/news/car-infotainment-system-automotive-tech-guide/>.
- Horberry, T., and Edquist, J. 2008. Distractions outside the vehicle. In M.A., Regan, J.D. Lee & K. Young (Eds.) *Driver Distraction: Theory, Effects, and Mitigation*. CRC Press, Boca Raton, FL.
- Hosseinkhanzadeh, A. A., Yeganeh, T. and Mojallal, M. 2013. The Relationship of the Religious Orientations and Attitudes with Self-control among Students. *Procedia - Social and Behavioral Sciences*, 84,759-762.
- Huang, J. L. and Ford, J. K. 2012. Driving locus of control and driving behaviours: Inducing change through driver training. *Transportation Research Part F: Traffic Psychology and Behaviour*, 15, 358 - 368.
- Huisingh, C., Owsley, C., Levitan, E.B, Irvin, M.R., MacLennan, P. and McGwin, G. 2019. Distracted Driving and Risk of Crash or Near-Crash Involvement Among Older Drivers Using Naturalistic Driving Data with a Case-Crossover Study Design. *The Journals of Gerontology*, 74(4), 550–555.

- Hunter, D. R., and Stewart, J. E. 2012. Safety locus of control and accident involvement among army aviators. *The International Journal of Aviation Psychology* 22:144-163.
- Hwang K. 2020. 'Because of a stupid cellphone': Regret, anger and pain after distracted driving Crashes. Retrieved 1st August 2020, from <https://www.indystar.com/story/news/local/transportation/2020/01/31/distracted-driving-crash-victims-share-stories-hardship-loss/4587525002/>.
- Igboanugo, A.C. and Onifade, M.K. 2013. Road-Safety Risk Factors and Crash Propensity Analysis: Results from Nigeria. *Advanced Research in Social Engineering and Development Strategies*, 1(3), 100-115.
- Ismeik, M., Al-Kaisy, A., and Al-Ansari, K. 2015. Perceived risk of phoning while driving: A cases tudy from Jordan. *Journal of Safety Science*, 78,1-10.
- Jafarpour, S. and Rahimi-Movaghar, V. 2014. Determinants of risky driving behavior: A narrative review. *Medical journal of the Islamic Republic of Iran* 28.14: 12-19. Retrieved 30th September, 2020, from <https://pubmed.ncbi.nlm.nih.gov/25695000/>.
- Javadi, S.M, Azad, H.M. Tahmasebi, S., Rafiei, H., Rahgozar, M. and Tajlili, A. 2015. Study of Psycho- Social Factor Affecting Traffic Accidents among Young Boys in Tehran. *Iran Red Crescent Medical Journal*, 17(7), 107-20.
- Joanson, O.J and Fyhri, A. 2017. “Maybe I Will Just Send a Quick Text...”- An Exastudytion of Drivers’ Distractions, Causes, and Potential Interventions. Retrieved 10th October, 2019, from <https://www.frontiersin.org/articles/10.3389/fpsyg.2017.01957/full>.
- John, O. P., Donahue, E. M. and Kentle, R.1991. *The Big Five Inventory-Versions 4a and 54*. Institute of Personality and Social Research. Berkeley, CA: University of California, Berkeley.
- John,Psycho-Socialvastava, S. 1999. The big five trait taxonomy: History, Measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.). *Handbook of personality: Theory and Research 2*: 102-138. New York, NY: Guilford Press.
- Jones, J. W. and Foreman, R. 1984. Relationship of the PSI-3S safety scale scores to motor Vehicle reports. Technical Report. Saint Paul, MN: The Saint Paul Fire and Marine.
- Keating, D. P. 2007. Understanding adolescent development: Implications for driving safety. *Journal of Safety Research* 38, 147–157.
- Kenton, W. 2020 What Is Behavioral Economics? Theories, Goals, Applications. Retrieved 4th January 2023, from <https://www.investopedia.com/terms/b/behavioraleconomics.asp>.

- Khazan, O. 2014. How Gender Affects the Behavior of Teen Drivers. 12th June, 2020, from <https://www.theatlantic.com/health/archive/2014/04/how-gender-affects-the-behavior-of-teen-drivers/359979/> .
- Kircher, K. 2007. Driver distraction – A review of the literature. Swedish National Road and Traffic Research Institute, Sweden. Retrieved 11th August, 2020, from <https://www.divaportal.org/smash/get/diva2:675328/FULLTEXT01.pdf>.
- Kirsch, T.J. 2018. "An analysis of the crash risk and likelihood of engaging in a Distraction while driving using naturalistic, time-series data". Graduate Theses and Dissertations. Retrieved 1st.August, 2020. From, <https://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=7399&context=etd>.
- Kneavel, T. C., (2008). The effects of locus of control and skill-chance incentives on performance at three developmental levels. Request Information & Learning). Dissertation Abstracts International: Section B the Sciences and Engineering, 68.7. Retrieved 7th September, 2018, from [http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2008-99020-383&site=ehost-live.\(2008-99020-383\)](http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2008-99020-383&site=ehost-live.(2008-99020-383)).
- Koenig, H. G., Parkerson, G. R. and Meador, K. G. 1997. Religion index for Psychiatric research. *An American Journal of Psychiatry*, 54, 885-886.
- Koenig, H. G., & Bussing, A. (2010). The Duke University Religion Index (DUREL): A Five-Item. *Epidemiological Studies Religions*, 1, 78-85.
- Kordani, A.A., Hassanpour, S. and Lenjani, A. 2020. Do Different Jobs and People's Beliefs Affect Their Commitment to High-Risk Driving Behavior? *International Journal of Transportation Engineering* 8 (1), 22-37.
- Kujala, T. and Mäkelä, J. 2018. Naturalistic study on the usage of smartphone application among Finnish drivers. *Accident, Analysis and Prevention*, 115: 53-61.
- Lancaster, R. and Ward, R. 2002. 'Implications for managing work-related road Safety. Retrieved 30th September, 2020, from <https://www.hse.gov.uk/research/rrpdf/rr020.pdf>.
- Lange, P.A.M, Kruglanski, A.W. and Higgins, E.T. 2012. Hand book of Theories of Social Psychology 1: 438-459, London, UK: Sage.
- Lee, J., Young, K. and Regan, M. A. 2008. Defining driver distraction. In M. A. Regan, J. Lee, & K. Young (Eds.), *Driver Distraction: Theory, Effects, and Mitigation*, 31-40. CRC Press.9
- Lerner, N., Baldwin, C., Higgins, J.S., Lee, J. and Schooler, J. 2015. Mind Wandering While Driving: What Does It Mean and What Do We Do About It? Proceedings of the Human Factors and Ergonomics Society 59th Annual Meeting .1686- 1690. Retrieved 30th September, 2020. From

https://labs.psych.ucsb.edu/schoolHandbookhan/sites/labs.psych.ucsb.edu.schooler.jonathan/files/pubs/mind_wandering_while_driving.pdf.

- Lewis, J.L. and Sheppard, S.R. 2006. Culture and Communication. Can Landscape Visualization improves forest management consultation with Indigenous communities? *Landscape and Urban Planning*, 77, 291-313.
- Liu, Z. 2011. The Effects of Distractions and Driver's Age on the Type of Crash and the Injury Severity Sustained by Occupants Involved in a Crash. Retrieved 20th July, 2020, from https://hfast.mie.utoronto.ca/wpcontent/uploads/Publications/Liu_Zishu_201206_MASc_thesis.pdf.
- Li, J., Lepp, A. and Barkley, J. E. 2015. Locus of control and cell phone use: Implications For sleep quality, academic performance, and subjective well-being. *Computer in Human Behaviour*, 52, 450-457.
- Li, L. and Lin, T.T.C. 2019. Over-connected? A qualitative exploration of smartphone addiction among working adults in China. *BMC Psychiatry*, 19:186. Retrieved 13th August, 2020, from <https://doi.org/10.1186/s12888-019-2170-z>
- López-Ramón, M.F. Castro, C., Roca, J., Ledesma, R. and Lupiañez, J. 211. Attentional Networks Functioning, Age, and Attentional Lapses While Driving. *Traffic Injury Prevention*, 12 (5), 518-528.
- Ludivine G., Marie-Axelle G. and Thémis A. 2014. Gender identity and risky behaviors among young drivers. Women's Issues in Transportation, 5th International Conference on Women's Issues in Transportation - Bridging the Gap, Paris, France.
- Ludovic, G., Pauline, O., Emilie, B., Charlotte, T., Pierre, I and Lucia, R. 2017. Description of Various Factors Contributing to Traffic Accidents in Youth and Measures Proposed to Alleviate Recurrence. *Frontiers in Psychiatry* 8.94: 1- 10. Retrieved 13th August, 2020, from <https://www.frontiersin.org/article/10.3389/fpsy.2017.00094>.
- Macy, M.L., Carter, P.M., Bingham, C.R., Cunningham, R.M. and Freed, G.L. 2014. Potential Distractions and Unsafe Driving Behaviors among Drivers of 1-behavioursar-old Children. *Academic Pediatric*, 14 (3), 279-286.
- Mairean, C., Havarneanu, G., Popusoi, S. and Havarneanu, C. 2017. Traffic locus of control. Scale – Romanian version: Psychometric properties and relations to the driver's personality, risk perception, and driving behaviour. *Transportation Research Part F: Traffic Psychology and Behaviour*, 45, 131-146.
- Maten, S.V. and Hagge, R.A. 2004. Evaluation of California's graduated driver icensing program. *Journal of Safe Rescue*, 35, 523-535.
- Mccartt, A.T, Hellinga, L.A. and Bratiman, K.A. 2006. Cell Phones and Driving: Review of Research, *Traffic Injury Prevention*, 7 (2), 89-106.

- McCrae, R. R. and Costa, P. T., Jr. 1996. Toward a new generation of personality theories. Theoretical contexts for the five-factor model. In J. S. Wiggins (Ed.). *The five-factor model of personality: Theoretical perspectives*: 51–87. Guilford Press.
- McCrae R and Terracciano A. 2005. Personality Profiles of Cultures: Aggregate Personality Traits. *Journal of Personality and Social Psychology In the public domain*, 3, 407- 425.
- Mc Cartt, A.T., Hellinga L.A. and Bratiman, K.A. 2006. Cell Phones and Driving: Review of Research. *Traffic & Accident Prevention*, 7(2), 89-109.
- McCartt A, Mayhew D, Braitman K, Ferguson S.A and Simpson H. 2009. Effects of age and experience on young driver crashes: Review of recent literature. *Traffic Injury Prevention* 10.3: 20 theories theoretical 2020. Opportunities to Reduce Youth Distracted Driving. Retrieved 13th August, 2020, from <https://injury.research.chop.edu/blog/posts/opportunities-reduce-youth-distracted-driving#.XzSxKjXNvIU>.
- McEvoy, S. P., Stevenson, M. R., and Woodward, M. 2006. The impact of driver distraction on road safety: Results from a representative survey in two Australian states. *Injury Prevention*, 12, 242-247.
- McEvoy, S. P., Stevenson, M. R. and Woodward, M. 2007. The contribution of passengers versus mobile phone use to motor vehicle crashes resulting in hospital attendance by the driver. *Accident, Analysis & Prevention* 39 (6), 1170 -1176.
- McLaughlin, E.M. 2013. How Locus of Control, Need for Affiliation, and the Big Five Factors, Perceived Risk Relate to Texting while Driving. Retrieved 28th September, 2018, from https://thescholarship.ecu.edu/bitstream/handle/10342/1803/McLaughlin_ecu_0600_M_10893.pdf?sequence=1&isAllowed=y.
- Mc Nally, B. and Bradley, G.L. 2014. Re- Conceptualizing the Reckless Driving Behaviour of Young Drivers. Retrieved 16th August, 2020, from https://www.academia.edu/8094511/Re_conceptualising_the_reckless_driving_behaviour_of_young_drivers.
- Metcalf, J. 2017. Young Millennial Take the Award for 'Worst-Behaved U.S. Drivers' Retrieved 26th October, 2020, from <https://www.bloomberg.com/news/articles/2017-02-15/he-worst-drivers-in-the-u-s-are-young-millennials>.
- Mizenko, A. J., Tefft, B. C., Arnold, L. S., and Grabowski, J. G. 2015. The McNallyship between age and driving attitudes and behaviors among older Americans. *Injury Epidemiology* 2 (1), 1-10.
- Moleni, J. 2010. Executive Functions and Risk Propensity in Adolescent and Adult Male Drivers: A Comparison (Thesis, Master of Social Sciences (MSc). University of

- Waikato, Hamilton, New Zealand. Retrieved from <https://hdl.handle.net/10289/5220>. Accessed on 13th August 2020.
- Molnar, J.L, Pradhan, A.K., David W. Eb, D.W., Ryan, L.H., St. Louis, R.M., Zakrajsek, J., Ross, B., Lin, B.T., Liang, C. Zalewski, B. and Zhang, L. 2017. Age-Related Differences in Driver Behavior Associated with Automated Vehicles and the Transfer of Control between Automated andbehavioursontrol: A Simulator Evaluation. University of Michigan Transportation Research Institute. Retrieved 26th October, 2020, from <https://deepblue.lib.umich.edu/bitstream/handle/2027.42/137653/UMTRI-2017-4%20.pdf?sequence=3%26isAllowed=y>.
- Montag, I. and Comrey, A.L. 1987. Internality and externality as correlates of Involvement in fatal driving accidents. *Journal of Applied Psychology*, 72, 339- 343.
- Moore, O. 2019. Distracted driving is as dangerous a crisis today as impaired driving was decades ago. What are Canadians doing about it? Retrieved 2nd June, 2020, from <https://www.theglobeandmail.com/canada/article-distracted-driving-prevention-canada/>.
- National Highway Traffic Safety Administration, 2012. The Effect of Passengers on Teen Driver Behaviour. Retrieved 28th May, 2020, from <https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/811613.pdf>.
- National Institute for Occupational Safety and Health, 2019. Distracted Driving at Work. Retrieved 10th.September, 2020, from <https://www.cdc.gov/niosh/motorvehicle/topics/distracteddriving/default.html>.
- National Road Traffic Regulation, 2012. Retrieved 4th September, 2020. From. <https://frsc.gov.ng/NATROADTRAFFICREGS2012.pdf> .
- National Safety Council, 2015. Employer Liability and the Case for Comprehensive Cell Phone Policies.Retrieved.4th.September, 2020. From [https://www.nsc.org/Portals/0/Documents/DistractedDrivingDocuments/NSC-CorpLiability-WP-lr-\(1\).pdf](https://www.nsc.org/Portals/0/Documents/DistractedDrivingDocuments/NSC-CorpLiability-WP-lr-(1).pdf).
- Narris, A., Cavallo, A. and Harrison, W. 2014. Identifying and Intervening with potentially High-Risk Young Drivers. Australasian Road Safety Research, Policing & Education Conference, Grand Hyatt, Melbourne.
- Nasar, J., Hecht, P. and Werner, R. 2008. Mobile Telephones, distracted attention and pedestrian safety. *Accident Analysis and Prevention* 40(1), 69-75.
- Nelson, E. Atchley P. and Little, T.D. 2009. The Effects of Perception of Risk and Importance of Answering and Initiating a Cellular Phone Call while Driving. *Accident Analysis and Prevention*, 41: 233- 4.

- Nemme, H. and White, K. 2010. Texting While Driving: Psychosocial Influences on Young People's Texting Intentions and Behaviour. *Accident, Analysis and Prevention* 2(2), 42-47.
- Neyens, D.M. and Boyle, L.N. 2008. The influence of driver distraction on the severity of Injuries sustained by teenage drivers and their passengers. *Accident Analysis & Prevention*, 40 (1), 25-49.
- Nofal, E. 2013. Utilization of social media for Raising Required Awareness of Human Factors Affecting Traffic Safety. Proceedings of the Second Forum "Traffic Safety: National Partnership and Corporate Social Responsibility". *Saudi Association of Traffic Safety*, 1,204-215.
- Obarisiagbon, E.I. 2017. A Sociological Analysis of Risk Factors for Male Teen and Young Adult Drivers in Benin Metropolis. *International Journal of Social Sciences*. 11 (2). 115-127.
- Olapeju, O. and Olasisi A. L 2016. Analysis of the Effects of Mobile Phones' Usage on Drivers' Behaviour in Abeof injuries, Nigeria International. *Journal of Innovative Research and Advanced Studies (IJIRAS)*, 3(8), 5-9.
- Olubiyi, S.K., Jibril U. N. Hauwa U.W. and Balarabe, F. 2016. Relationship between use of Mobile Phone and Road Traffic Accidents amongst Motorist in Zaria. *Journal of Health Sciences*, 4 (4), 285-295.
- Olufikayo, A. and Grace, A. 2014. Risk perception factors and their influence on Road transportation. *Journal of Transport Literature*, 8. 2:100-112. Retrieved 28th September, 2020, from <https://doi.org/10.1590/S2238-10312014000200005>.
- Olukoga, A., Anyanwu, F.C., Peters, F., Tewari, D., Oyesola, R. and Osungbade, K. 2014. Texting and driving among drivers in Trinidad and Tobago, West Indies. *African. Journal for Physical Health Education, Recreation and Dance*, 20 (21), 399-408.
- Olumami, H.O. Ojo, T.K. and Mireku, D.O. 2014. Perceived Risk of Automobile Drivers on usage of Mobile Phone While Driving in Ibadan Metropolis, Nigeria. *European Journal of Business and Management*, 6 (3), 306-313.
- Olsen, E.C.B., Lerner, N., Perel, M. and Simons-Morton, B.G. 2005. In-Car Electronic Device Use among Teen Drivers. Presentation at the 2005. *Transportation Research Board Meeting*, January 9-13, Washington, D.C.
- Oluseyi, O. F. 2006. Urban Land Use Change Analysis of a Traditional City from Remote Sensing Data: The Case of Ibadan Metropolitan Area, Nigeria. *Humanity & Social Sciences* 1.1: 42-64.
- Ortega, C.A.C., Mariscal, M.A., Boulagouas, W., Herrera, S., Espinosa, J.M., & García-Herrero, S. 2021. Effects of Mobile Phone Use on Driving Performance: An Experimental Study of Workload and Traffic Violations. *International Journal of Environmental Research and Public Health*. 18(13), 7101.

- Ortiz, C., Ortiz-Peregrina, S., Castro, J. J., Casares-López, M. and Salas, C. 2018. Driver distraction by smartphone use (WhatsApp) in different age groups. *Accident; Analysis and Prevention*, 117, 239-249
- Ortiz-Peregrina, S., Oviedo-Trespalacios, O., Ortiz, C., Casares-Lopez, M., Salas, C. and Anera, R.G. 2020. Factors determining speed management during distracted driving (WhatsApp messaging). Scientific Report 10. Retrieved 1st September, 2020 <https://doi.org/10.1038/s41598-020-70288-4>.
- Oviedo-Trespalacios, O. Haque, M. M., King, M. and Demmel, S. 2018. Driving Behaviour while self-regulating mobile phone interactions: A human-machine system approach. *Accident; Analysis and Prevention*, 118, 253-262.
- Oviedo-Trespalacios, O., King M., Haque, M. M. and Washington, S. 2017. Risk factors of mobile phone use while driving in Queensland: Prevalence, attitudes, crash risk perception, and task-management strategies. PLoS ONE, 12(9), Article e0183361. Retrieved 2nd March 2019, from <https://doi.org/10.1371/journal.pone.0183361>.
- Oviedo-Trespa, O., King, M., Truelove, V and Kelly, R. 2019. Can voluntary apps reduce mobile? Phone use while driving? Retrieved 30th April, 2020, from https://www.racv.com.au/content/dam/racv/images/publicpolicy/reports/RACV_Voluntary%20Apps%20Report_WEB.pdf Accessed 3rd October, 2020.
- Oviedo-Trespalacios, O., Truelove, V., Watson, B. and Hinton, J.A. 2019. The impact of road advertising signs on driver behaviour and implications for road safety: A critical systematic review, *Transportation Research Part A: Policy and Practice*, 122, 85-98,
- Oviedo-Trespalacios, O., Vaezipour, A., Truelove, V., Kaye and King, M. 2020. “They would call me, and I would need to know because it is like life and death”: a qualitative examination of the acceptability of smartphone applications designed to reduce mobile phone use while driving. *Transportation Research Part F: Traffic Psychology and Behaviour*, 73, 499-513.
- Oyeleke J.k., Bada, V. and Ajibewa, O.D. 2016. Socio-Demographic Factors, Personality Traits and Job Stress as Predictors of Driving Anger Behavior among Drivers in Ijebu ode, Nigeria. *International Journal of Humanities and Social Science* 6 (4), 162-169.
- Oyeyemi, B.O. 2014. Acceptance Speech on Assumption of office as Corps Marshal, 20th May.2014.
- Oyeyemi, B.O. 2003. The Federal Road Safety Corps, Productivity and road Traffic administration in Nigeria: Issues, implementation strategy, Ibadan: Clemere Media Consult.

- Özkan, T. and Lajunen, T. 2005. Multidimensional Traffic Locus of Control Scale (T-LOC): factor structure and relationship to risky driving. *Personality and Individual Differences*, 38, 533-545.
- Palamara, P., Molnar, L., Eby, D., Kopinanthan, C., Langford, J., Gorman, J. and Broughton, M. 2012. Review of young driver risk taking and its association with other risk-taking behaviours. Retrieved 12th. August, 2020, from <https://deepblue.lib.umich.edu/bitstream/handle/2027.42/94210/102889.pdf?sequence=1>.
- Papantoniou, P., Antoniou C., Pavlou, D., Papadimitriou, E. Yannis, G. and Golias, J. 2017. Exploratory Analysis of the Effect of Distraction on Driving Behaviour through a Driving Simulation risk-taking. *International Journal of Risk-taking*, 5 (1), 35-46.
- Parr, M.N., Ross, L.A., McManus, B. Bishop, H.J., Witting, S.M.O and Stavrinou, D. 2016. Differential Impact of Personality Traits on Distracted Driving Behaviors in Teens and Older Adults. *Accident Analysis Prevention*, 92, 107-112.
- Phillips, J.G. Sailing, L. and Blaszczyński, A. 2008. 'Psychology of Mobile phone Use and Misuse' In *Mobile Telephones: Networks, Applications and Performance* 1. 191-210, Nova Science Publishers Inc.
- Plante, T.G. 2011. *Contemporary Clinical Psychology* (3rd edition.) John Wiley & Sons Inc.
- Prat, F., Gras, M. E., Planes, M., González-Iglesias, B., & Sullman, M. J. M. 2015. Psychological predictors of texting while driving among university students. *Transportation Research Part F: Traffic Psychology and Behaviour*, 34, 76-85.
- Prato CG, Toledo T, Lotan T, Taubman-Ben-Ari O. 2009. Modeling the behavior of novice Young drivers during the first year after licensure. *Accident, Analysis and Prevention*, 42 (2), 480-486.
- Pourshams, M. and JanFada, H. 2017. Investigation of the Effects of Religious Beliefs on Compliance with Traffic Laws and Regulations on Yazd Province Drivers (Structural Equation Modeling Approach). *Journal of Community Health Research*, 6, 4.
- Poysti, L.S., Rajalin and Summala H. 2005. Factors affecting the use of cellular (mobile) Phone during driving and hazards while using it. *Accident. Analysis and Prevention*, 37, 47-51.
- Qu, W., Ge, Y., Xiong, Y. Carciofo, R., Zhao, W. and Zhang, K. 2015. The relationship between mind wandering and dangerous driving behavior among Chinese drivers. *Safety Science*, 78, 10- 16.

- Rammstedt B. and John O.P. 2007. Measuring Personality in one minute or less: A 10-Item short version of the Big Five Inventory in English and German. *Journal of Research in Personality*, 41, 203-212.
- Ramisetty- Mikler, S. and Almakadma, A. 2016. Attitudes and behaviours towards risky driving among adolescents in Saudi Arabia. *International Journal of Pediatric and Adolescent Medicine*, 3 (2), 55-63.
- Regan, M.A., Lee, J.D. and Young, K.L. 2009. Driver Distraction: Theory, Effects and Mitigation. CRC Press, Taylor& Francis Group.
- Regan, M. A., Halletta, and Gordon, C.P. 2011. Driver distraction and driver inattention: Definition, relationship and taxonomy. *Accident Analysis and Prevention*, 43, 1771-1781.
- Regan M.A and Strayer D.L. 2014. Towards and Understanding of Driver Inattention: Taxonomy and Theory. *Journal of Advanced Automobile research*, 58, 7-15.
- Riquelme, H. E., Al-Sammak, F. S. and Rios, R. E. 2010. Social influences among young Drivers on talking on the mobile phone while driving. *Traffic Injury Prevention*, 11, 127-132.
- Roberts, B.W., Lejuez, C. Krueger, R.F., Richards, J.M and Hill, P.L. 2012. What is Conscientiousness and how can it be assessed? *Developmental Psychology*. Advance online publication. Retrieved 2nd March, 2019, from DOI: [http:// doi: 10.1037/a0031109](http://doi:10.1037/a0031109).
- Romer. R., Lee Y., McDonald C. & Winston F. 2014. Adolescence, Attention Allocation, and Driving Safety. *Journal of Adolescent Health*, 54, 6-15.
- Ron. L, Renfrow, R. & O'Leary, B. 2010. Social marketing and distracted driving behaviors among young adults: The effectiveness of fear Appeal. *Academy of Marketing Studies Journal*, 14, 95-113.
- Rose, B. 2019. Unfocused drivers put themselves and others at risk. Retrieved 19th September, 2020, from <https://www.ishn.com/articles/104092-unfocused-drivers-put-themselves-and-others-at-risk>.
- Rotter, J. B. 1966. Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80, 1-28.
- Rowe, R., Andrews, E., Harris, P. R., Armitage, C. J., McKenna, F. P. and Norman, P. 2016. Identifying beliefs underlying pre-drivers 'intentions to take risks: An application of Theory of Planned Behaviour. *Accident Analysis & Prevention*, 89, 49-56.
- Rupp, M.A., Gentzler, M.A. and Smither, J.A. 2016. Driving under the influence of distraction: Examining dissociations between risk perception and engagement in distracted driving. *Accident Analysis & Prevention*, 97, 220-230.

- Saba, J. and Rahimi-Movaghar V. 2014. Determinants of risky driving behaviour: a Narrative Review. *Medical Journal of the Islamic Republic of Iran*, 28 (1), 142.
- Sabaté-Tomas, M., Arnau-Sabatés, L. and Sala-Roca, J. 2014. Factors influencing a risky Driving profile among a cohort of young university students: Bases for adopting evidence-based prevention interventions. *Journal of Psychology* 44 (3), 295-310.
- Sabaté-Tomas, M., Sabatés, L. and Sala-Roca, J. 2014. Factors influencing a risky driving Profile among a cohort of young university students: Bases for adopting evidence-based prevention interventions. *Journal of Psychology*, 44, 295-310.
- Sachs, C. 2013. Distracted Driving and Young People. Retrieved 18th May, 2020, from <https://rn-journal.com/journal-of-nursing/distracted-driving-and-young-people>.
- Saei A, Rahmani A, Ebadi A. and Khankeh H R. 2017. Driver's Effective Factors in Traffic Accident: A Sequential Explanatory Mixed Methods. *Health in Emergencies, Disaster and Quarterly* 3.1:31-38. Retrieved 20th May, 2020, from <http://hdq.uswr.ac.ir/article-1-149-en.html>.
- Safe Driving Report 2020. Safe Road Report. Retrieved 20th June, 2020, from <https://www.finder.com/road-safety-statistics>.
- Safe Road, 2015. Youth Safety: The Imperativeness of Road Safety Clubs in School. A Quarterly Publication of Zone RS2/NVIS Lagos, 3: 32-37.
- Safety Science, 2003. Personality, attitudes and risk perception as predictors of risky driving behaviour among young drivers. *Journal of Safety*, 41 (5), 427-443.
- Sahara Reporter, 2012. Atheism in Nigeria. Retrieved 10th September, 2018, from, <http://saharareporters.com/2012/09/13/atheism-nigeria-leo-igwe>.
- Salkind, N. J. 2010. *Encyclopedia of research design* Thousand Oaks, CA: SAGE Publications Ltd.
- Sanbonmatsu, D. M., Strayer, D. L., Biondi, F., Behrends, A. A. and Moore, S. M. 2015. Cell-phone use diminishes self-awareness of impaired driving. *Psychonomic Bulletin & Review* 10th September, A. and Haden, S. C. 2006. Community violence victimization and aggressive behaviour: The moderating effects of coping and social support. *Aggressive Behaviour*, 32, 502–515.
- Scott-Parker, B., Watson, B. and King, M. 2009. Understanding the psychosocial factors influencing the risky behaviours of young drivers. *Transportation Research Part F: Traffic Psychology and Behaviour*, 12.(6), 470-482.
- Shaaban, K., Gaweesh, S. and Ahmed, M. M. 2018. Characteristics and mitigation strategies for cell phone use while driving among young drivers in Qatar. *Journal of Transport and Health*, 8, 6-14.

- Shen B, Qu, W., Ge, Y., Sun, X. and Zhang, K. 2018. The relationship between personalities and Self-report positive driving behavior in a Chinese sample. Retrieved 1st May, 2020, from https://www.researchgate.net/publication/322411902_The_relationship_between_personalities_and_self-report_positive_driving_behavior_in_a_Chinese_sample.
- Sheridan, T. B. 2004. Driver Distraction from a Control Theory Perspective. *Human Factors*, 46, 587-599.
- Shi Y. and Zhou R. 2017. Driving Under Voluntary and Involuntary Distraction: An Empirical Study of Compensatory Behaviors. In: Nah FH, Tan CH. (edition) HCI in Business, Government and Organizations. Interacting with Information Systems. HCIBGO 2017. Lecture Notes in Computer Science, Vol. 10293. Springer, Cham. Retrieved 3rd October, 2020, from https://doi.org/10.1007/978-3-319-58481-2_29.
- Shinar, D. 2007. Traffic Safety and Human Behaviour (ed.) Elsevier.
- Shope J.T. and Bingham C.R. 2008. Teen driving: Motor-vehicle crashes and factors that contribute. *American Journal Prevention Medicine*, 35 (3), 261-721.
- Sinha, J. W., Cnaan, R. A. and Gelles. A 2007. Adolescent risk behaviors and religion: Findings from a national study. *Journal of Adolescence*, 30, 231–249.
- Sinha, C. 2016. Sick or Slick? The Impact of Technology on Human Behaviour Retrieved 1st June, 2020, from <https://www.business2community.com/tech-gadgets/sick-slick-impact-technology-human-behavior-01637239>.
- Sitkin, S. and Pablo, A. 1992. Reconceptualizing the Determinant of Risk Behaviour. *The Academy of Management Review*, 17(1), 9-38.
- Simons-Morton, B. G., Ouimet, M. C., Zhang, Z., Klauer, S. E., Lee, S. E., Wang, J., Chen, R., Albert, P. and Dingus, T. A. 2011. The effect of passengers and risk-taking friends on risky driving and crashes/near crashes among novice teenagers. *The Journal of adolescent health: official publication of the Society for Adolescent Medicine* 49.6: 587–593. Retrieved 11th May, 2020, from <https://doi.org/10.1016/j.jadohealth.2011.02.009>.
- Smith, L. 2017. Man caught watching Champions League final on his phone while driving. Retrieved 4th September, 2020, from <https://www.mirror.co.uk/news/man-caught-watching-champions-league-10776004>.
- Society for Risk Analysis, 2018. Majority of drivers don't believe texting while driving is dangerous. Science Daily. Retrieved 14th August, 2020, from www.sciencedaily.com/releases/2018/07/180709120143.htm.
- Sorum, N. and Pal, D. 2022 Effect of Distracting Factors on Driving Performance: A Review. *Civil Engineering Journal*. 8(2), 382- 405.

- Stavrinos, D., Jones, J. L., Garner, A. A., Griffin, R., Frankln, C.A., Ball, D., Welburn, S.C., Ball, K.K., Sisiopiku, V.P. and Fine, P.R. 2013. Impact of distracted driving on safety and the majority flow. *Accident Analysis Prevention*, 61: 63-70.
- Stead, M., Tagg, S., MacKintosh, A. M., and Eadie, D. 2004. Development and Evaluation of a Mass Media Theory of Planned Behaviour Intervention to Reduce Speeding. *Health Education Research*, 20 (1), 36-50.
- Steinberg L. 2001. We know some things: Adolescent-parent relationships in retrospect and prospect. *Journal of Research on Adolescence*, 11, 1-20.
- Steinberg, L. 2004. Top of Form A Social Neuroscience Perspective on Adolescent Risk-Taking Development. *The Revelation*, 28(1), 78-106.
- Steinberg L. 2004. Risk-taking in adolescence: What changes, and why? Annals of the New York Academy of Sciences. *Journal of Public Medicine*, 10 (21), 51–58.
- Stenquist, P. 2019. Distracted by Tech While Driving? The Answer May Be More Tech. Retrieved 10th May, 2020, from <https://www.nytimes.com/2019/05/02/business/distracted-driving-technology.html>.
- Storch, E.A., Roberti, J.W., Heidgerken, A.D., Lewin, A.B., Killiany, E.M., Baumeister, A.L., Bravata E. A and Geffken, G.R. 2004. The Duke Religion Index: A Psychometric Investigation. *Pastoral Psychology* 53, 175-181.
- Strayer, D. L. and Drews, F. A. 2004. Profiles in driver distraction: effects of cell Phone conversations on younger and older drivers. *Human Factors*, 46 (4), 640-649.
- Strayer, D.L. & Drews, F.A. 2006. Multi -tasking in the Automobile. In *Attention: Theory Practice*, Oxford, England.
- Strayer, D. L 2015. Is the Technology in Your Car Driving You to Distraction? *Policy Insights from the Behavioral and Brain Sciences*, 2(1), 157-165.
- Stutts, J.C., Feaganes, J., Reinfurt, D., Rodgman, E., Hamlett, C., Gish, K., and Staplin, L. 2005. Driver's exposure to distractions in their natural driving environment. *Accident Analysis and Prevention*, 37 (6), 1093-1101.
- Sutton, S. 1994. The Past Predicts the Future: Interpreting behaviour- Behaviour relationship in Social- Psychological models of health behaviours in D.R. Rutter & Quine (Eds.). *Psychology and Health: European Perspectives* 71-88. All Dort, England: Avesbury.
- Sween, M., Ceschi, A, Tommasi, F., Sartori, R. and Weller, J. 2017. Who is a distracted driver? Associations between Mobile Phone Use while Driving, Domain-Specific Risk Taking, and Personality. Retrieved 22nd October, 2020, from <https://onlinelibrary.wiley.com/doi/10.1111/risa.12773>.

- Tabrizi, R. Akbari, M. Lankarani, K.B. Heydari, S.T Masoudi, A., Shams, A.H. Akbarzadeh, A. Moalemi, S. Mehr, M.M. Sadati, A. K. and Peymani, P. 2017. Relationship between religion and school students' road behaviour in southern Iran, *Chinese Journal of Traumatology* 20.5: 264-269.
- Terry, C. P. and Terry, D. L. 2016. Distracted Driving Among College Students: Perceived Risk versus Reality. *Current Psychology*, 35 (1), 115-120.
- Tiliopoulos, N., Bikker, A., Coxon, A. and Hawkin, P.K. 2007. The Means and Ends of Religiosity: A Fresh Look at Gordon Allports Religious Orbehaviour Dimensions. *Personality and Individual Differences*, 42, 1609-1620.
- The Marshal, 1999. The “Baby Drivers” Should not drive. A newsletter of the Federal Road Safety Commission, Abuja 1.1: 5-8.
- The Social Issues Research Centre, 2004. Sex differences in driving and insurance risk. An analysis of the social and psychological differences between men and women that are relevant to their driving behaviour. Retrieved 30th June, 2020 <http://www.sirc.org/publik/driving.pdf>.
- The Voice of Safety, 2009. The Opening of a Chapter. A Quarterly Publication of RS8, FRSC ZONAL HQ.1: 1-12.
- Think, 2017. THINK! Put your phone away while driving. Retrieved 1st June, 2020, from <https://movingon.blog.gov.uk/2017/06/14/think-put-your-phone-away-while-driving-2/>
- This Day, 2016. New Rules for Fresh Driver’s License Applicants Standard Operating Procedures for Driving School Operations in Nigeria. Retrieved 10th September, 2018, from <http://frsc.gov.ng/fids.pdf>.
- Tison, J., Chaudhary, N. and Cosgrove, L. 2011. National phone survey on distracted driving attitudes and behaviours. Retrieved 5th January, 2019 <https://www.nhtsa.gov/document/national-phone-survey-distracted-driving-attitudes-and-behaviors>.
- Trivedi, N., Haynie, D., Bible, J., Liu, D. and Simons-Morton, B. 2017. Cell phone use while driving: Prospective association with emerging adult use. *Accident Analysis and Prevention*, 106, (450-455).
- Truelove, V., Freeman, J. and Davey, J. 2019. “I Snap chat and Drive!” A mixed method Approach examining snapchat use while driving and deterrent perceptions among young adults. *Accident Analysis & Prevention*, 131, 146-156.
- Trucking info, 2012. Origo Device Keeps Drivers from Using Handheld Phones While Driving. Retrieved 1st June, 2020, from <https://www.truckinginfo.com/152330/origo-device-keeps-drivers-from-using-handheld-phones-while-driving>.

- Turiano, N.A, Snapchat S.D., Hampson, S.E., Roberts, B.W. and Mroczek, D.K. 2012. Personality and Substance Use in Midlife: Conscientiousness as a Moderator and the Effects of Trait Change. *Journal of Research in Personality* 46 (3), 295-305.
- Ugwuegbu, D.C.E. 1977. The Stop Sign is for the other Guy: A Naturalistic Observation of Driving Behaviour of Nigerians. *Journal of Applied Psychology*, 5 (62). 574-577
- University of Alabama at Birmingham, 2016. Personality may dictate how distracted you are while driving. Science Daily. Retrieved 21st November, 2018, from www.sciencedaily.com/releases/2016/04/160412094102.htm.
- Uzundu, C. 2020. The influence of road safety culture on driver behaviour: a study of Nigerian drivers. Retrieved 28th. August, 2020. From https://www.researchgate.net/publication/338449789_The_influence_of_road_safety_culture_on_driver_behaviour_a_study_of_Nigerian_drivers.
- Vanguard Online, 2018. Majority of drivers don't perceive texting dangerous while driving – Study. Retrieved 10th September, 2018. From <https://www.vanguardngr.com/2018/07/majority-of-drivers-dont-perceive-texting-dangerous-while-driving-study/>.
- Vassallo, S., Smart, D., Sanson, A., Harrison, W., Harris, A., Cockfield, S. and McIntyre, A. 2007. Risky Driving among Young Australian Drivers: Trends, Precursors and Correlates. *Accident Analysis and Prevention*, 39, 444-458. <http://dx.doi.org/10.1016/j.aap.2006.04.011>
- Violanti, J.M and Marshall, J.R. 1996. Cellular phones and traffic accidents: An epidemiological approach. *Accident Analysis and Prevention* 28.2: 265-270. Retrieved 11th July, 2019, from [https://doi.org/10.1016/0001-4575\(95\)00070-4](https://doi.org/10.1016/0001-4575(95)00070-4).
- Vij, A. 2019. Young workers are most likely to use their phones while driving – here's how we can change that. Retrieved 4th August, 2020, from <https://theconversation.com/young-workers-are-most-likely-to-use-their-phones-while-driving-heres-how-we-can-change-that-88563>.
- Voogt, A., Day, A. and Bakshev, G. 2014. Risky driving in young adults: A review of the literature. *Road & Transport Research: A Journal of Australian and New Zealand Research and Practice*, 23 (2), 50-59.
- Wai, P.S. 2008. Religious Orientation, Locus of Control And learned Helplessness. Thesis in the Department of General and Applied Psychology, Faculty of Social Sciences Submitted to the School of Post Graduate Studies, University of Jos. Retrieved 1st March 2021, from [https://irepos.unijos.edu.ng/jspui/bitstream/123456789/223/1/Religious%20Orientati on.pdf](https://irepos.unijos.edu.ng/jspui/bitstream/123456789/223/1/Religious%20Orientati%20on.pdf).
- Wallace, K. 2016. Driving While Distracted: Can technology stop the problem it caused? Retrieved from 1st June, 2020, from

<https://www.cnn.com/2016/08/04/health/distracted-driving-technology-solution/index.html>.

- Walsh, S. P., White, K. M., Hyde, M. K. and Watson, B. C. 2008. Dialing and driving: Factors influencing intentions to use a mobile phone while driving. *Accident Analysis and Prevention*, 40, 1893-1900.
- Walsh, S. P., White, K. M., Watson, B. H. and Melissa, K. 2010. Psychosocial factors influencing mobile phone use while driving. Queensland. University of Technology. Beams Road Carseldine, Brisbane.
- Walter, L. 2012. Multi-tasking Employees Emerge as Growing Distracted Driving Demographic. Retrieved 7th September, 2020, from <https://www.ehstoday.com/safety/article/21915336/multitasking-employees-emerge-as-growing-distracted-driving-demographic>.
- Watson, B., Fresta, J., Whan, H., McDonald, J., Bauermann, C. and Churchwood, R. 2007. Enhancing driver management in Queensland. Brisbane: Land Transport and Safety Division, Queensland Transport.
- Weller, J. A., Shackelford, C., Dieckmann, N. and Slovic, P. 2013. Possession attachment predicts cell phone use while driving. *Health Psychology*, 32 (4) 379-387.
- Wells, P., Tong, S., Sexton, B., Grayson, G. & Jones, E. 2008. Cohort II: a study of learners and new drivers. London: Department of Transport. *Road Safety Research Report*, 81.1.
- Weller, J.A. Shackelford, C., Deckman, N. and Slovic P. 2013. Possession attachment Predicts cell phone use while driving. *Health Psychology*, 32(4), 379-387.
- Weston, L. 2015. Exploring the Factors which under-pin Young Drivers' Over-Representation in Road Traffic Collisions. A thesis submitted to the University of Plymouth in partial fulfilment of the requirements for the degree of Doctor of Philosophy. Retrieved 12th August, 2018. from <https://pearl.plymouth.ac.uk/bitstream/handle/10026.1/5153/2015Weston10365974p hd.pdf?sequence=1>.
- White, K. M., Hyde, M. K., Walsh, S. P. and Watson, B. 2010. Mobile phone use while driving: An investigation of the beliefs influencing drivers' hands-free and hand-held mobile phone use. *Transportation Research Part F: Traffic Psychology and Behaviour*, 13.1: 9-20. Retrieved 26th May, 2018, from <https://doi.org/10.1016/j.trf.2009.09.004>.
- WHO, 2011. Mobile Phone Use: a growing problem of driver distraction. Retrieved 10th September, 2018, from http://www.who.int/violence_injury_prevention/publications/road_traffic/distracted_driving_summary.pdf.

- Wijers, P. J. 2018. Phone Using Drivers: A Major Source of Distraction and a Massive Assault on Road Safety. Retrieved 10th June, 2020 from <https://making-traffic-safer.com/phone-using-drivers-a-major-source-of-distraction-and-a-massive-assault-on-road-safety/>.
- Winkle, A.V. 2020. Distracted Drivers: An In-Depth Look at This Danger on Our Roadways. Retrieved 2nd June, 2020, from <https://www.allenandallen.com/distracted-drivers-an-in-depth-look-at-this-danger-on-our-roadways/>.
- Wundersitz, L. 2019. Driver distraction and inattention in fatal and injury crashes: Findings from in-depth road crash data. *Traffic Injury Prevention*, 20 (7), 696-701.
- Yamane, T. 1967. *Statistics: An Introductory Analysis*. 2nd edition. New York: Harper and Row.
- Yang, J., Du, F., Qu, W., Gong, Z. and Sun, X. 2013. Effects of Personality on Risky Driving Behaviour and Accident Involvement for Chinese Drivers. *Traffic Injury Prevention*, 14, 565-71.
- Yanko, M. R. and Spalek, T. M. 2013. Driving with the wandering mind: The effect that mind-wandering has on driving performance. *Human Factors*, 56 (2), 260-269.
- Yannis, G., Laiou, A., Papantoniou, P. and Christoforou, C. 2014. Impact of texting on Young drivers' behavior and safety on urban and rural roads through a simulation experiment. *Journal of Safety Research*, 49: 25-31.
- Yellman, M.A., Bryan, L., Sauber-Schatz, E.K. and Brener, N. 2019. Transportation Risk Behaviors among High School Students - Youth Risk Behavior Survey, United States. *Morbidity & Mortality Weekly Report*, 69 (1), 77-83.
- Young Driver Fact base, 2009. Risky Driving Behaviour. Retrieved 25th July 2020, from <https://www.youngdriverfactbase.com/the-issues/behaviour1/>.
- Young, M.E., Denny, G., Penhollow, T.M. and Donnelly, J. 2004. Religiosity and Unsafe and Distracted Driving Behaviors. *Health Behaviour and Policy Review*, 1(14), 58-71.
- Zhang, D. C., High-house, S., and Nye, C. D. 2018. Development and validation of the General Risk-taking Propensity Scale (GRiPS). *Journal of Behavioral and Decision Making*. Retrieved 7th January, 2019, from <https://doi.org/10.1002/bdm.2102>.
- Zhang, R. & Qu, X. 2017. The role of personality traits and driving experience in self-reported risky driving behaviors and accident risk among Chinese drivers. *Accident Analysis & Prevention*, 99, 228.

- Zhao, N., Reimer, B. Mehler, B., D'Ambrosio, L.A. and Coughlin, J.F. 2012. "Self-reported and observed risky driving behaviors among frequent and infrequent cell phone users." *Accident Analysis and Prevention*. Retrieved 24th December, 2018, from <https://www.ncbi.nlm.nih.gov/pubmed/22878144>.
- Zhu, M.B.C., Shen, S. B., Redelmeier, D. A., Li, L. C. Wei, L.& Foss, R.F. 2021. Bans on Cellphone Use While Driving and Traffic Fatalities in the United States. *Epidemiology*, 32 (5), 731-739. 1.
- Zuckman, J. and Beck, D. 2012 AT&T Teen Driver Survey. Retrieved 12th June, 2020, from https://www.att.com/Common/about_us/txtting_driving/att_teen_survey_executive.pdf

APPENDIX I

QUESTIONNAIRE

Department of Psychology

University of Ibadan, Ibadan, Oyo State, Nigeria

We humbly request you to complete the questionnaire below by ticking the most suitable option. Please be informed that all information obtained through this questionnaire is to expand the frontier of knowledge and will be kept confidential

SECTION A

1. Gender: Male () Female ()
2. Age: ()
3. Religion: Christianity () Muslim () Others ()
4. Educational: Qualification Primary () O 'Level () NCE/OND ()
HND/BSC () MSc ()
5. Occupation:
6. Years of Driving Experience: ()

INSTRUCTION: Please respond to each of the items in this questionnaire based on your driving experience (s)

SECTION B- BFI- 10

How well do the following statements describe your personality?

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I see myself as someone who is reserved					
2	I see myself as someone who is generally trusting					
3	I see myself as someone who tends to be lazy					

4	I see myself as someone who is relaxed, handles stress well					
5	I see myself as someone who has few artistic interests					
6	I see myself as someone who is outgoing, sociable					
7	I see myself as someone who tends to find fault with others					
8	I see myself as someone who does a thorough job					
9	I see myself as someone who gets nervous easily					
10	I see myself as someone who has an active imagination					

SECTION C- RELIGIOSITY

	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	In my life, I experience the presence of the Divine (<i>i.e.</i> , God)					
2	My religious beliefs are what really lie behind my whole approach to life					
3	I try hard to carry my religion over into all other dealings in life					

SECTION D- TRAFFIC LOCUS OF CONTROL

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Whether or not I get into car accident depends mostly on shortcomings in my driving skills					
2	Whether or not I get into car accident depends mostly on my own risk-taking while driving					
3	Whether or not I get into car accident depends mostly on shortcomings in other drivers' driving skills					
4	Whether or not I get into car accident depends mostly on other drivers' risk-taking while driving					
5	Whether or not I get into car accident depends mostly on bad luck					
6	Whether or not I get into car accident depends mostly on dangerous roads					
7	Whether or not I get into car accident depends mostly on if I drive often with too high speed					
8	Whether or not I get into car accident depends mostly on if other drivers drive often with too high speed.					
9	Whether or not I get into car accident depends mostly on if I drive too close to the car in front					
10	Whether or not I get into car accident depends mostly on if other drivers					

	drive too close to my car					
11	Whether or not I get into car accident depends mostly on fate					
12	Whether or not I get into car accident depends mostly on bad weather or lighting conditions					
13	Whether or not I get into car accident depends mostly on a mechanical failure in the car					
14	Whether or not I get into car accident depends mostly on other drivers driving under influence of alcohol					
15	Whether or not I get into car accident depends mostly on other drivers' dangerous overtaking					
16	Whether or not I get into car accident depends mostly on my own dangerous overtaking					
17	Whether or not I get into car accident depends mostly on coincidence					

SECTION E – RISK PROPENSITY

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Taking risks makes life more fun					
2	My friends would say that I'm a risk taker					
3	I enjoy taking risks in most aspects of my life					
4	I would take a risk even if it meant I might get hurt					
5	Taking risks is an important part of my life					
6	I commonly make risky decisions					
7	I am a believer of taking chances					
8	I am attracted, rather than scared, by risk					

SECTION F – SUSCEPTIBILITY TO DISTRACTED DRIVING BEHAVIOUR

(i) Engagement in distraction while driving

No	Items	Never	Rarely	Sometimes	Often	Always
1	When driving, I hold phone conversations					
2	When driving, I manually interact with a phone (e.g., sending text messages).					

3	When driving, I adjust the settings of in-vehicle technology (e.g., radio channel or song selection).					
4	When driving, I read roadside advertisements.					
5	When driving, I continually check roadside accident scenes if there are any.					
6	When driving, I chat with passengers if they are with me.					
7	When driving, I daydream.					

(ii) Attitudes about voluntary distraction

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I think I can drive well even when I hold phone conversations					
2	I think I can drive well even when I manually interact with a phone (e.g., sending text messages).					
3	I think I can drive well even when I adjust the settings of in-vehicle technology (e.g., radio channel or song selection).					
4	I think I can drive well even when I read roadside advertisements.					
5	I think I can drive well even when I continually check roadside accident scenes if there are any.					

6	I think I can drive well even when I chat with passengers if they are with me.					
---	--	--	--	--	--	--

(iii)

Potential facilitators of voluntary distraction

No	Items	Never	Rarely	Sometimes	Often	Always
1	Generally, most drivers around me drive and hold phone conversations					
2	Generally, most drivers around me drive and manually interact with a phone (e.g., sending text messages).					
3	Generally, most drivers around me drive and adjust the settings of in-vehicle technology (e.g., radio channel or song selection).					
4	Generally, most drivers around me drive and read roadside advertisements.					
5	Generally, most drivers around me drive and continually check roadside accident scenes if there are any					
6	Generally, most drivers					

	around me drive and chat with passengers if they have them.					
--	---	--	--	--	--	--

(iv.) Involuntary Distraction

No	Items	Never	Rarely	Sometimes	Often	Always
1	While driving, I find it distracting when my phone is ringing					
2	While driving, I find it distracting when I receive an alert from my phone (e.g., incoming text message).					
3	While driving, I find it distracting when I am listening to music.					
4	While driving, I find it distracting when I am listening to radio.					
5	While driving, I find it distracting when there are roadside advertisements.					
6	While driving, I find it distracting when there are roadside accident scenes.					
7	While driving, I find it distracting when a passenger speaks to me.					
8	While driving, I find it					

	distracting when day dreaming.					
--	-----------------------------------	--	--	--	--	--

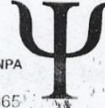
(v) Voluntary Distraction

No	Items	Never	Rarely	Sometimes	Often	Always
1	While driving, I only hold phone conversations with people who are important to me.					
2	While driving, I only interact with a phone (e.g., sending text messages) with people who are important to me.					
3	While driving, I have never held phone conversations with people who are unimportant to me.					
4	While driving, I have never interacted with a phone (e.g., sending text messages) with people who are unimportant to me.					
5	While driving, I only pick urgent calls					



UNIVERSITY OF IBADAN, IBADAN, NIGERIA
DEPARTMENT OF PSYCHOLOGY
FACULTY OF THE SOCIAL SCIENCES

Head of Department
Professor S. K. Balogun, FNPA
Bsc; Msc, Ph.d (Ibadan)
Tel: 08033322474 & 08055060865
E-mail: slyngle61@yahoo.com
sk.balogun@gmail.com



29 January, 2020

The Secretary
Oyo State Ethical Review Committee
Ministry of Health
Secretariat
Ibadan.

Dear Sir,

REQUEST FOR ETHICAL CLEARANCE – DAIRO ADEMOLA SAMSON

This is to certify that the above named with matriculation number 101050 of the Department of Psychology, University of Ibadan, who is currently carrying out his Ph.D thesis on: **PSYCHO-SOCIAL FACTORS AND THE MODERATING ROLE OF RISK PROPENSITY AS PREDICTORS OF PRONENESS TO DISTRACTED DRIVING BEHAVIOUR AMONG YOUNG DRIVERS WITHIN IBADAN METROPOLIS.** The research does not involve any invasive procedure.

Kindly grant him the ethical Clearance to conduct this research among the targetted population in Ibadan, Oyo State.

Attached to this letter is a copy of the proposal.

Thank you in anticipation of a favourable response.

Professor S.K. Balogun
Head of Department, Psychology

TELEGRAMS.....

TELEPHONE.....



MINISTRY OF HEALTH
DEPARTMENT OF PLANNING, RESEARCH & STATISTICS DIVISION
PRIVATE MAIL BAG NO. 5027, OYO STATE OF NIGERIA

Your Ref. No.

All communications should be addressed to

the Honorable Commissioner quoting B

Our Ref. No. AD 13/479/ 1683

st
31 January, 2020

The Principal Investigator,
Department of Psychology,
Faculty of Social Sciences,
University of Ibadan.
Ibadan, Nigeria.

Attention: Dairo Ademola

**ETHICS APPROVAL FOR THE IMPLEMENTATION
OF YOUR RESEARCH PROPOSAL IN OYO STATE**

This is to acknowledge that your Research Proposal titled: "Psycho-Social Factors and the Moderating Role of Risk Propensity as Predictors of Proneness to Distracted Driving Behaviour among Young Drivers within Ibadan Metropolis." has been reviewed by the Oyo State Ethics Review Committee.

2. The committee has noted your compliance. In the light of this, I am pleased to convey to you the full approval by the committee for the implementation of the Research Proposal in Oyo State, Nigeria.
3. Please note that the National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations, in line with this, the Committee will monitor closely and follow up the implementation of the research study. However, the Ministry of Health would like to have a copy of the results and conclusions of findings as this will help in policy making in the health sector.

4. Wishing you all the best.



D^r Abbas Gbolahan
Director, Planning, Research & Statistics
Secretary, Oyo State, Research Ethics Review Committee



SOCIAL SCIENCES AND HUMANITIES RESEARCH ETHICS COMMITTEE
(SSHEC)
University of Ibadan

Chair: Prof. Jegede A. S.
Tel: +234-8055282418
Email: savjegede@gmail.com
savjegede@yahoo.com
as.jegede@mail.ui.edu.ng

1 December, 2020.

RE - PSYCHO-SOCIAL FACTORS AND THE MODERATING ROLE OF RISK PROPENSITY AS PREDICTORS OF PRONENESS TO DISTRACTED DRIVING BEHAVIOUR AMONG YOUNG DRIVERS WITHIN IBADAN METROPOLIS.

UI/Social Sciences Ethics Committee assigned number: UI/SSHEC/2020/0027

Name of Principal Investigator: Mr. Dairo Ademola Samson,
Address of Principal Investigator: Department of Psychology,
Faculty of the Social Sciences,
University of Ibadan.

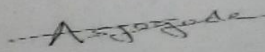
Date of receipt of valid application: **8 November, 2020.**

Date of meeting when final determination on ethical approval was made:

This is to inform you that the research described in the submitted protocol, the consent forms, and other participant information materials have been reviewed and given full approval by the SSHE Committee.

This approval dates from **1/11/2020 to 30/11/2021**. If there is delay in starting the research, please inform the SSHE Committee so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. All informed consent forms used in this study must carry the SSHE Committee assigned number and duration of SSHE Committee approval of the study. It is expected that you submit your annual report as well as an annual request for the project renewal to the SSHE Committee early in order to obtain renewal of your approval to avoid disruption of your research.

Note: the National code for health research ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to the SSHEC. No changes are permitted in the research without prior approval by the SSHEC except in circumstances outlined in the Code. The SSHEC reserves the right to conduct compliance visit to your research site without previous notification.


Prof. A. S. Jegede