

Socio-Demographic Factors and Risk-Taking Among Cameroonian Motorbike Taxi Drivers



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ABSTRACT : The purpose of this article is to verify the link between socio-demographic factors and risk-taking among Cameroonian motorbike taxi drivers in relation to the wearing of helmets and the prohibition of alcohol consumption while driving. These factors are age, gender, experience, level of education and religious affiliation. 300 Cameroonian motorbike taxi drivers were interviewed using a questionnaire consisting of an introductory note, items from the Goggin scale (2007) and items from Ajzen's theory of planned behaviour (1991). These were selected using a random choice sampling technique and the results were analysed using one-way ANOVA. It is a link between socio-demographic factors and risk-taking among Cameroonian motorbike taxi drivers. This article provides information on the socio-demographic factors to be taken into account in risk-taking among motorbike taxi drivers, in order to address the issue of awareness and education programmes for them.

KEYWORDS: socio-demographic factors, road risk-taking, Cameroonian motorbike taxi drivers.

INTRODUCTION

Road accidents in the world in general and in Cameroon in particular are a public health problem. And motorbike accidents are even more so, because drivers of these two-wheeled vehicles take risks to such an extent that accidents caused by them are constantly increasing. According to the General Delegation for National Security, the number of deaths in 2014 was 273, 275 in 2015, 276 in 2016, 278 in 2017, 279 in 2018, 281 in 2019 and 282 in 2020. According to the DGSN, in 2014 there were 453 injuries, 392 in 2015, 331 in 2016, 270 in 2017, 208 in 2018, 347 in 2019 and 486 in 2020. In view of the statistics on road accidents in Cameroon in general and those caused by motorbike taxis in particular, we observe that despite the preventive measures put in place by the Cameroonian government (prevention through education, prevention through training and prevention through repression) to efficiently reduce them, motorbike taxi drivers continue to adopt dangerous behaviours on the road. The general objective of this article is to show the link between socio-demographic factors and risk-taking among Cameroonian motorbike taxi drivers. This general objective is broken down into the following four specific objectives age is related to risk-taking among Cameroonian motorbike taxi drivers (OS1) ; the number of years of experience is related to risk-taking among Cameroonian motorbike taxi drivers (OS2) ; the level of education is related to risk-taking among Cameroonian motorbike taxi drivers (OS3) ; and finally religious affiliation is related to risk-taking among Cameroonian motorbike taxi drivers (OS4). Our general hypothesis is entitled : there is a significant relationship between socio-demographic factors and risk-taking among Cameroonian motorbike taxi drivers. This general hypothesis is operationalised into the following four specific hypotheses: there is a significant relationship between age and risk-taking among Cameroonian motorbike taxi drivers (HS1); there is a significant relationship between the number of years of experience and risk-taking among Cameroonian motorbike taxi drivers (HS2) there is a significant relationship between the level of education and risk-taking among Cameroonian motorbike taxi drivers (HS3) and finally there is a significant relationship between religious affiliation and risk-taking among Cameroonian motorbike taxi drivers (HS4).

Age and risk-taking

Several studies reported by Ragot and MunduteGuy (2005) have highlighted the link between age and risk-taking behaviour in the area of road safety. They mention the fact that the risk is greater for young people than for adults. Similarly, the work of Huang and Preston (2004) ; Yannis et al. (2005) ; Zambon and Hasselberg (2006a) mentioned a greater risk for young motorcyclists both in terms of crash involvement and severity. These studies also agree that young people have an attitude that values risk-taking and that they most overestimate their driving skills, especially in critical situations, and most underestimate the danger of the situation. Several recent experimental studies have found a positive and significant effect of age on risk taking (Brauw & Eonezou, 2014 ; Carpenter & Cardenas, 2013). They also found a positive, but small, effect among fishermen in South Africa. The results of

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Carpenter and Cardenas (2013) are drawn from a sample of 3109 individuals in 6 major Latin American cities. The experiment by Brauw and Eozenou (2014) concerned risk preferences among farmers in Mozambique. There is thus a certain convergence of results, all the more remarkable as it concerns very different populations and the methods used were different. Similar results were found by Raynaud and Couture (2010) for French farmers.

However, some studies have found a negative effect of age on risk-taking (Dohmen et al. 2011 ; Yesuf & Bluffstone, 2009). But the most frequently observed empirical result is the absence of a significant effect of age, a result already present in the work of Binswanger (1980). More recent studies have confirmed those obtained by Binswanger (1980), in particular Henrich and McElreath (2002), Galarza (2009), Charness and Villeval (2009) and Tanaka et al. (2010).

Gender, experience and risk taking

Gender has been identified as a key variable in understanding adolescent risk-taking. Indeed, most studies (Coppens & Gentry, 1991 ; Rosen & Peterson, 1990) show that boys engage in more risky behaviour than girls. In addition, boys compared to girls tend to identify situations as less risky (Hiller & Morrongiello, 1998).

In terms of accidents, the results of Ragot and Munduteguy's (2005) work show that a two-wheeler driver with ten years of driving experience has a 38% lower probability of accident than a two-wheeler driver of the same age but with only one year of driving experience. Other work (Tiffin & Mc Cormick, 1958) shows a lower accident rate for more experienced operators compared to less experienced operators. Bauge and Vigneron (1983) note a progressive decrease in the risk of being injured as the individual acquires seniority at the workstation (Rousseau & Monteau, 1991).

Level of education and risk-taking

Since the problem of non-application of road safety measures in the motorbike transport sector is partly due to the low level of education of motorbike drivers, we admit that road safety education must be an integral part of the education provided to children in and out of school. Although the youngest children are not yet able to adapt to complex traffic problems, and may have spontaneous dangerous behaviours, education will prepare them for the task of future road users and help them develop the necessary skills (Ndjiepmo, 2008). Although occupational choice is a risky decision, it is also closely interdependent with the level of education that improves managerial ability (Antunes & Cavalcanti, 2002 ; Hartog et al., 2003). An individual with a high level of education will be a better manager and will be more likely to move from self-employment to paid employment.

For Savolainen and Mannering (2005), the persistent increase in motorbike fatalities and injuries in recent years has raised safety awareness and drawn attention to the role that rider training and education can play in reducing crash rates. In this study, a sample of motorcyclists was selected to be used for the analysis of the impact of motorcycling on the environment and on the health of the population. In this study, a sample of Indiana motorcyclists was used to estimate statistics on the effectiveness of existing training programmes in reducing crash probability. Statistical models for motorcyclists' speed choice and helmet use behaviour were also estimated. The results showed that those who started motorcycle training courses were less likely to be involved in a crash than those who did not, and that those who took the course from start to finish and more than once were significantly less likely to be involved in a crash.

Religious affiliation and risk taking

God's perceived control over life events is studied in terms of religious beliefs in the belief literature, with reference to conventional religious doctrines. The literature on the effect of religious beliefs is extensive. There is work that shows the beneficial effects of religious beliefs in the health field. They show that patients' religious beliefs can improve their adaptation to therapy, especially in the case of serious illnesses. For example, Howsepian and Merluzzi's (2009) study shows the positive effect of adherence to religious beliefs on cancer adaptation. In their study, they collect data from 164 cancer patients undergoing treatment and find a strong correlation between religious beliefs and social support, two variables that promote patients' adaptation to their therapy. They show that perceived self-efficacy mediates the positive effect of social support on cancer adaptation.

Seirmarco et al (2012) conducted a study of 607 people more than two years after the September 11, 2001 attacks in the United States of America. They find that after the attacks, there is little variation in participants' religious beliefs. However, the participants who believe less in God after the attacks are those who present the most psychopathological disorders (post-traumatic stress, deep depression). These participants were recruited from among those who had lost relatives in the attacks. These two examples illustrate the studies that show the positive effects of religious beliefs or beliefs in the control of God on health (Carpenter et al., 2012; Rosmarin et al., 2009). Thus, religious beliefs would allow individuals to manage stress due to various ailments they may experience in their daily lives. The results appear rather scattered when it comes to studies that deal with the effect of religious beliefs on engagement in risky behaviours. A study by Poulson et al (2008) shows that adherence to

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religious beliefs does not reduce alcohol use and engagement in risky sexual behaviour among adolescents, but the authors find a significant negative correlation between religious beliefs and drug use. In other words, the stronger the adolescents' religious beliefs, the less they engage in drug use. Other studies show that religious beliefs can have an effect on health behaviours when they interact with beliefs in moral values (Desmond et al., 2009).

The disparity of results in these studies can probably be explained by the fact that these studies address religious beliefs in their entirety without emphasising the power of God's control over life events among believers. This is indeed the idea that emerges from a study by Goggin et al (2007). These authors believe that, beyond religious beliefs (particularly in a religious doctrine), belief in God's control over behaviour and life events is a factor in engaging in protective behaviour. They develop and validate a scale to measure perceived God-control over adolescent risky sexual behaviour. They find strong negative correlations between scores on this scale and scores on intention to engage in risky sexual behaviour. In particular, participants who believe that God has control over their risky sexual behaviours have lower intentions to engage in such behaviours. This new line of research seems to show that the perception of God as an entity that regulates individual behaviours seems to favour the intention to engage in protective behaviours among adolescents. Thus, it appears from the literature that the controversy surrounding the effects of religious beliefs, or rather, beliefs in divine control, remains relevant. However, there is still not enough work that has addressed this factor in the field of road risk prevention.

Ngueutsa and kouabenan (2014) in an attempt to understand road users' behaviours in Cameroon, examine socio-instrumental control beliefs by looking at two control instances: the cultural group and God. They hypothesise a tendency to adopt less safe behaviours when road users believe in certain cultural practices or God as 'protectors'. 525 road users completed a face-to-face questionnaire measuring perceived ability to cope with dangerous situations without being worried, belief in God's control in risky situations, beliefs in the control of cultural practices supposed to protect life and safety behaviours. The results confirm the hypotheses in this case; participants feel able to face dangerous situations without being worried when they adhere to cultural practices supposed to protect life and divine protection over dangerous traffic situations; this explains their less safe behaviours. These findings suggest that the beliefs of the target population should be taken into account when designing and communicating prevention messages to drive strong adherence to prevention messages and safer behaviours on the road.

Ngah Essomba (2017) proposes to study the influence of religious beliefs on life events. To speak of the power of religious beliefs over life events is to speak of the control over events that individuals attribute to God, gods or other higher forces. Certainly, belief in a Supreme Being is surrounded by multiple beliefs in invisible lower powers and recourse to these is more frequent than prayers to the one (Masson, 1990, p. 237). Belief in God does not exclude the need to appeal to other forces that are inferior to him but just as effective. In the western regions of Cameroon, families often appeal to their ancestors through ancestor cults (Fouellefak, 2005). Speaking of religious practices, apart from the practices of traditional religions (ancestor worship, belief in reincarnation, etc.).

The Bantu worship God when they celebrate a birth, a death, a marriage, an epidemic or a disaster, that is to say at the crucial stages, when our dependence on the Supreme Living One, the Source, is most apparent. It is indeed to him that we must address ourselves in this matter, it may be the rituals that are practised in religions stemming from the old testament, we have cults, masses, prayers, meetings, etc. Not all religions have the same way of worshipping the Supreme Being. Three main beliefs about the causes of accidents were identified in the overall discourse of the participants (n =292): natural accidents, mystical accidents and accidents caused by God the creator. With regard to the results obtained, Ngah Essomba (2017) observes that the French speak of natural accidents, i.e. accidents that have a natural cause (human, mechanical and infrastructural), whereas the Cameroonians resort more to beliefs to explain accidents to which they attribute mystical, divine, supernatural causes, etc.

Nkelzok and Djebi (2018) proposed to study the influence of irrational beliefs on risk behaviour among motorbike taxi drivers in Yaoundé. Specifically, the aim was to analyse the link between magic-religious, alogical or illusory beliefs and risk behaviour in urban motorbike taxi transport. Data were collected using a questionnaire from 250 motorbike taxis (Bend-skiners) selected using accidental and snowball sampling techniques. The questionnaire was structured as a Likert-type scale to assess the level of perception of irrational beliefs and their influence on risk behaviour. The results show that irrational beliefs have an influence on the risk behaviour of Bend-skiners.

METHODS

Our study is quantitative, more precisely quasi-experimental. It was conducted in the city of Yaoundé. Indeed, the choice of Yaoundé as the site was motivated by the following five reasons: firstly, Yaoundé is a cosmopolitan city with several openings, it includes two state universities (University of Yaoundé I and University of Yaoundé II) which attract young people. Secondly, Yaoundé is our home town which limits the cost of transport for the survey. Thirdly, it is one of the cities in Cameroon where the road network linking several other cities (Douala, Bertoua, Bafoussam, etc.) is particularly dense. Fourthly, it is one of the cities in

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Cameroon with a large number of motorbike taxis (600,000) according to the Ministry of Transport's 2017 statistics and finally fifthly, it is the city in the Central Region with the highest motorbike taxi accident rate of about 14% (GN, 2010). As for the districts of Yaoundé, where we selected the participants, we chose the districts of Yaoundé IV, VI and VII because of their size, the largest district and the last of the districts in terms of creation respectively. Knowledge of the research site in any scientific investigation is an asset for the researcher. It makes it easier to monitor and understand the influences of the environment on the behaviour of the participants.

Participants

Using the purposive sampling technique, 300 motorbike taximen aged between 14 and 50 years in the city of Yaoundé were selected. They were randomly divided into three groups: the experimental group (n=100), the control group (n= 100) and the neutral group (n= 100). To get the participants, we met with the presidents of the motorbike taxi associations who introduced us to their weekly general assembly meeting and introduced us as a researcher interested in the motorbike taxi accident problem. They allowed us to select those voluntary participants who met the criteria of our study (motorbike driver, working area, age). Before filling in the forms, we gave them a pencil, an eraser and a desk pad. At the end of this stage, we realised that the participants had answered all the questions in accordance with the various instructions. However, they mentioned that the questionnaire was too long and that they felt that the questions were repetitive. To address this concern of the motorbike taximen, we told them that the theory and methodology of our study dictated this. A debriefing session was held with the participants. In this study, the questionnaire was designed to collect information from motorbike taxi drivers in order to study the effect of Christian beliefs on risk taking. The questionnaire consists of four parts : an introductory note for the participants, a priming text (for the experimental groups), items from the Goggin scale (2007), items from the Theory of Planned Behaviour dimensions of road risk taking and socio-demographic factors. Our data analysis plan is based on quantitative analysis methods with the following variables: age, years of experience, level of education and religious affiliation correlated with risk taking among Cameroonian motorbike taxi drivers. The ANOVA used in this study is the one-factor ANOVA because our study has a single independent variable or factor and the objective is to test whether variations or different levels of our independent variable have a measurable effect on our dependent variable. As this test is robust due to the calculations to be performed, we processed the data collected by the SPSS (Statistical Package for Social Sciences) version 20.0 software.

RESULTS

In this article, we have the results obtained from the different statistical treatments carried out as follows:

Age and risk-taking among motorbike taxi drivers

Table 1 .Variation of risk-taking dimensions according to age

	Age					
	[14-24 years]		[25- 35 years]		[36-50 years]	
	M	SD	M	SD	M	SD
Attitudes	4.44	0.633	4.36	0.696	4.36	0.920
Injunctive norms	4.35	0.454	4.20	0.604	4.26	0.769
Descriptive norms	4.29.	0.477	4.22	0.609	4.05	1.063
Perceived behavioural control	4.24	0.930	4.01	1.473	3.63	1.322
Intention	4.47	1.469	4.29	0.899	4.06	0.969
Overall averages	4.35	0.796	4.21	0.856	4.07	1.00

Note : M= Mean ; SD= Standard Deviation

Table 1 presents the means on the five dimensions (measuring risk-taking among motorbike taxi drivers). In general, participants as a whole tend to comply with road safety measures (M> 2.5) that suggest wearing a helmet and not drinking alcohol while driving. However, this tendency varies according to age. Specifically, participants aged 14-24 (M=4.35 ; SD=0.796) and those aged 25-35 (M=4.21 ; SD=0.856) were less likely to do so than participants aged 36-50 (M=4.07 ; SD=1.00). Indeed, in terms of attitudes towards helmet use and not drinking and driving, participants aged 36-50 (M=4.36 ; SD=0.920) and those aged 25-35 (M=4.36 ;

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SD=0.693) appear to have less favourable attitudes towards helmet use and not drinking and driving compared to participants aged 14-24 (M=4.44 ; SD=0.633). In terms of injunctive norms, it appears that participants aged 25-35 (M=4.20 ; SD=0.604) and those aged 36-50 (M=4.26 ; SD=0.769) appear to have lower levels of approval of helmet use and not drinking compared to participants aged 14-24 (M=4.35 ; SD=0.454).

Indeed, in terms of attitudes towards helmet use and not drinking and driving, participants aged 36-50 (M=4.36 ; SD=0.920) and those aged 25-35 (M=4.36 ; SD=0.693) appear to have less favourable attitudes towards helmet use and not drinking and driving compared to participants aged 14-24 (M=4.44 ; SD=0.633). In terms of injunctive norms, it appears that participants aged 25-35 (M=4.20 ; SD=0.604) and those aged 36-50 (M=4.26 ; SD=0.769) appear to have lower levels of approval of helmet use and not drinking compared to participants aged 14-24 (M=4.35 ; SD=0.454). In terms of descriptive norms, participants aged 25-35 (M=4.22 ; SD=0.609) and those aged 36-50 (M=4.05 ; SD=1.063) appear to feel that their significant others (colleagues, friends and relatives) do not always respect helmet use and the ban on drinking and driving, whereas participants aged 14-24 (M=4.29 ; SD=0.477) do. The results on perceived control related to wearing a helmet and not drinking and driving show that participants aged 24-35 (M=4.01 ; SD=1.473) and those aged 36-50 (M=3.63 ; SD=1.422) appear to perceive that it is difficult for them to wear a helmet and not drink and drive compared to participants aged 14-24 (M=4.24 ; SD=0.930). At the level of intention, participants aged 25-35 (M= 4.29; SD= 0.899) and those aged 36-50 (M= 4.06; SD=0.969) appear to be less willing to wear helmets and not drink alcohol while driving compared to participants aged 14-24 (M= 4.47; SD= 1.469). These results show that the means between the age categories are different, but they do not show whether these differences are statistically real.

Table 2. Comparison of means of risk-taking dimensions among participants according to age

Source	Dependent variable	Sum of Type III squares	Ddl	Mean of squares	F	Significance
Age	Attitudes	12,746	3	5,698	8,424	,057
	Injunctive norms	10,900	3	3,633	12,871	,010
	Descriptive norms	21,26	3	7,087	12,087	,014
	Intention	28,621	3	9,540	6,918	,007
	Perceived behavioural control	51,23	3	12,754	12,754	,000

Note : Ddl= Degree of freedom

Table 2 presents the results of the comparisons of the means obtained by the participants belonging to the three age groups. These results show a significant difference in injunctive norms ($F(3,96) = 12.871; p=010$), descriptive norms ($F(3,96) = 12.087; p=014$), perceived behavioural control ($F(3,96) = 12.754; p=000$) and intention ($F(3,96) = 6.918; p=007$). This means that firstly, participants aged 25-35 and 36-50 felt that their colleagues, friends and relatives were less supportive of wearing helmets and not drinking and driving than participants aged 14-24. Secondly, participants aged 25-35 and 36-50 felt that their colleagues, friends and relatives did not respect wearing helmets and not drinking and driving compared to participants aged 14-24. Thirdly, participants aged 25-35 and 36-50 are less likely to intend to wear a helmet and not drink and drive on their next trip compared to participants aged 14-24.

Educational level and risk-taking among motorbike taxi drivers

Table 3. Variation in risk-taking dimensions according to educational level

	Educational level							
	Primary		Secondary		Higher		No schooling	
	M	SD	M	SD	M	SD	M	SD
Attitudes	4,46	0,399	4,40	0,700	4,12	0,781	4,50	0,754
Injunctives norms	4,18	0,368	4,38	0,720	4,24	0,553	4,20	0,797
Descriptives norms	4,15	0,357	4,40	0,699	3,81	0,938	4,38	0,863
Perceived behavioural Control	4,73	0,432	4,04	1,078	3,72	1,335	4,30	1,026

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Intention	4,43	0,568	4,50	1,631	3,68	0,846	4,16	0,846
Overall averages	4,39	0,424	4,34	0,965	3,91	0,890	4,30	0,857

Note : M= Mean ; SD=Standard Deviation

Table 3 presents the means on the five dimensions (measuring risk-taking among motorbike taxi drivers). In general, participants as a whole tend to comply with road safety measures ($M > 2.5$) that suggest wearing a helmet and not drinking and driving. Specifically, participants with higher education ($M=3.91$, $SD=0.890$) and those with no education ($M=4.30$, $SD=0.857$) tend to be less likely to comply with them compared to those with primary education ($M=4.39$; $SD=0.424$) and those with secondary education ($M=4.34$; $SD=0.965$). Indeed, with regard to the injunctive norms of wearing a helmet and not drinking and driving, participants with a primary level ($M=4.18$; $SD=0.368$) seem to feel that the people important to them (colleagues, friends and relatives) approve less of wearing a helmet and not drinking and driving.

In terms of descriptive norms, participants with a high school education ($M=4.38$; $SD=.720$), those with a higher education ($M=4.24$; $SD=.553$) and those with no education ($M=4.20$; $SD=.797$) appear to feel that important people (colleagues, friends and relatives) do not always do the same. Similarly, in terms of descriptive norms, participants with higher education ($M=3.81$; $SD=0.938$) seem to feel that people important to them (colleagues, friends and relatives) do not always use helmets and drink alcohol while driving, in contrast to participants with secondary education ($M=4.40$; $SD=0.699$), those with no education ($M=4.38$; $SD=0.863$) and those with primary education ($M=4.15$; $SD=0.357$). However, in terms of attitudes towards helmet use, participants with higher education ($M=4.12$; $SD=0.781$), those with secondary education ($M=4.40$; $SD=0.700$) and those with primary education ($M=4.46$; $SD=0.399$) seem to find it less important to wear a helmet and not drink alcohol while driving compared to participants with no education ($M= 4.50$; $SD=0.754$) who find it essential to wear a helmet and not drink alcohol while driving. On the perceived behavioural control dimension, participants with higher education ($M=3.72$; $SD=1.335$) ; those with secondary education ($M=4.04$; $SD=0.699$) and those with no education ($M=4.30$; $SD=1.026$) appear to perceive that it is difficult to wear a helmet and not drink while driving compared to those with primary education ($M=4.73$; $SD=0.432$). Participants with secondary education ($M=4.50$; $SD=1.631$), those with primary education ($M=4.43$; $SD=0.568$) and those with no education ($M=4.16$; $SD=0.846$) appear to have a greater intention to wear a helmet and not to drink on future trips compared to those with higher education ($M=3.68$; $SD=0.846$). These results show that the averages obtained by the participants according to their level of education are different, but they do not show whether these differences are real in statistical terms.

Table 4. Comparison of means of risk-taking dimensions among participants according to educational level

Source	Dependent variable	Sum of squares	Ddl	Mean squares	off	Significance
Education level	Attitudes	26,015	3	8,672	14,841	,096
	Injonctives norms	17,719	3	5,906	19,795	,079
	Descriptives norms	39,046	3	13,405	24,030	,087
	Intention	78,472	3	26,157	30,292	,159
	Perceived behavioural control	259,733	3	86,577	91,287	,000

Note : Ddl= Degree of freedom

Table 4 presents the results of the comparisons of the means obtained by the participants on the dimensions measuring risk-taking among motorbike taxi drivers. These results suggest that there is a significant difference only in intention ($F(3,96) = 30.292$; $p = 0.159$). This means that participants with a higher level of education do not intend to wear a helmet and respect the ban on drinking and driving compared to participants with a high school education; those with a primary education and those with no education.

Year of experience and risk-taking among motorbike taxi drivers

Table 5. Variation in risk-taking dimensions according to years of experience

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	Years of experience					
	[0-5 years]		[6- 10 years]		[11-15 years]	
	M	SD	M	SD	M	SD
Attitudes	4,36	0,695	4,44	0,713	4,30	0,669
Injonctives norms	4,37	0,540	4,34	0,527	4,08	0,889
Descriptives norms	4,37	0,619	4,26	0,699	4,04	1,023
Perceived behavioural control	4,00	1,321	4,08	1,248	3,79	1,468
Intention	4,27	0,840	4,37	0,861	4,15	1,967
Overall averages	4,27	0,803	4,29	0,809	4,06	1,203

Note : M= Mean ; SD= Standard Deviation

Table 5 presents the means on the five dimensions (measuring risk-taking among motorbike taxi drivers). In general, participants as a whole tend to respect road safety measures ($M > 2.5$) that suggest wearing a helmet and not drinking and driving. This tendency varies according to the participants' years of experience. Specifically, participants with 11 to 15 years of experience ($M=4.06$; $SD=1.203$) tend to be less likely to comply with them than those with 0 to 5 years of experience ($M=4.27$; $SD=0.803$) and those with 6 to 10 years of experience ($M=4.29$, $SD=0.809$). In terms of injunctive and descriptive norms, participants with 11 to 15 years of experience ($M=4.08$; $SD=0.889$) not only seem to feel that their significant others (colleagues, friends and relatives) are less supportive of wearing helmets and complying with the drinking ban while driving, but also drive without always wearing helmets and complying with the drinking ban ($M=4.04$; $SD=1.023$). ($M=4.04$; $SD=1.023$) compared to those with 6-10 years experience ($M=4.34$; $SD=0.527$) and those with 0-5 years experience ($M=4.37$; $SD=0.540$), who not only seem to feel that their colleagues approve of wearing helmets and respecting the ban on drinking and driving more, but also very often use helmets and do not drink and drive ($M=4.26$; $SD=0.699$; $M=4.37$; $SD=0.619$). On the intention dimension, participants with 11 to 15 years of experience ($M=4.15$; $SD=1.967$) appear to have less intention to wear a helmet and to respect the prohibition of drinking and driving compared to participants with 0 to 5 years of experience ($M=4.27$; $SD=0.840$) and those with 6 to 10 years of experience ($M=4.37$; $SD=0.861$)

However, participants with 11-15 years of experience ($M=4.30$; $SD=0.669$) and those with 0-5 years of experience ($M=4.36$; $SD=0.695$) seem to find it less essential to wear a helmet and to respect the ban on drinking and driving compared to participants with 6-10 years of experience ($M=4.44$; $SD=0.713$). On the perceived behavioural control dimension, the results show instead that participants with 11 to 15 years of experience ($M=3.79$; $SD=1.468$) appear to perceive that it is difficult to wear a helmet and obey the alcohol ban while driving compared to participants with 0 to 5 years of experience ($M=4.00$; $SD=1.321$) and those with 6 to 10 years of experience ($M=4.08$; $SD=1.248$). These results show that the averages obtained by participants according to their years of experience are different, but they do not show whether these differences are statistically real.

Table 6. Comparison of means of risk-taking dimensions among participants according to years of experience

Source	Dependent variable	Sum of squares	Type III Df	Mean squares	off	Significance
Years of experience	Attitudes	2,272	2	1,136	3,063	,368
	Injonctives norms	3,791	2	1,895	4,459	,089
	Descriptives norms	2,470	2	1,235	2,437	,404
	Intention	9,496	2	4,748	3,576	,180
	Perceived behavioural control	7,279	2	3,64	1,684	,651

Note : Ddf= Degree of freedom

Table 6 presents the results of the comparisons of the means obtained by the participants on the dimensions measuring risk-taking among motorbike taxi drivers. These results show that the differences are significant only at the level of injunctive norms ($F(2,97) = 4.459$; $p=.089$). This means that participants with 11-15 years of experience seem to feel that people important to them

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(colleagues, friends and relatives) are less supportive of wearing helmets and not drinking and driving than participants with 6-10 years of experience and those with 0-5 years of experience.

Religious affiliation and risk-taking among motorbike taxi drivers

Table 7. Variation in risk-taking dimensions according to religious affiliation

	Religious affiliation							
	Catholic		Protestant		Muslim		Traditional	
	M	ET	M	ET	M	ET	M	ET
Attitudes	4,44	0,662	4,49	0,500	4,24	0,856	4,35	0,522
Injonctives norms	4,42	0,459	4,31	0,523	4,11	0,740	4,13	0,441
Descriptives norms	4,41	0,501	4,20	0,559	4,22	0,665	4,18	0,696
Perceived behavioural control	4,28	0,998	4,35	0,602	3,23	1,814	4,72	0,820
Intention	4,41	1,472	4,22	0,732	4,13	0,946	4,49	0,696
Overall averages	4,39	0,818	4,31	0,599	3,98	1,004	4,37	0,857

Note : M= Mean ; SD= Standard Deviation

Table 7 presents the means on the five dimensions (measuring risk-taking among motorbike taxi drivers). In general, participants as a whole tend to follow road safety measures ($M > 2.5$) that suggest wearing a helmet and not drinking and driving. This tendency varies according to the religious affiliation of the participants. Specifically, participants of Muslim religious affiliation ($M=3.98$; $SD=1.004$) tend to respect them less than those of Protestant religious affiliation ($M=4.31$; $SD=0.599$) ; those of traditional religious affiliation ($M=4.37$; $SD=0.857$) and those of Catholic religious affiliation. In terms of injunctive norms, participants of Muslim faith ($M=4.11$; $SD=0.740$) appear to feel that people important to them (colleagues, friends and relatives) are less supportive of wearing helmets and respecting the ban on drinking and driving than those of traditional faith ($M=4.13$; $SD=0.441$) ; those of Catholic faith ($M=4.31$; $SD=0.857$) and those of Catholic faith ($M=4.37$; $SD=0.857$) ; $SD=0.441$) ; those of Protestant faith ($M=4.20$; $SD=0.559$) and those of Catholic faith ($M=4.42$; $SD=0.459$). In terms of descriptive norms, participants of traditional religious affiliation ($M=4.18$; $SD=0.696$) appear to feel that people important to them (colleagues, friends and relatives) drive without wearing helmets and drink alcohol while driving compared to those of Protestant religious affiliation ($M=4.20$. ($M=4.20$; $SD=0.559$) ; those of Muslim faith ($M=4.22$; $SD=0.665$) and those of Catholic faith ($M=4.41$; $SD=0.501$). On the perceived behavioural control dimension, participants of Muslim faith ($M=3.23$. $SD=1.814$) appeared to perceive that 2856tw as difficult to wear a helmet and to respect the ban on alcohol while driving compared to those of Catholic faith ($M=4.28$; $SD=0.998$) ; those of Protestant faith ($M=4.35$; $SD=0.602$) and those of traditional faith ($M=4.75$; $SD=0.820$). On the intention dimension, participants of Muslim faith ($M=4.13$; $SD=0.946$) appear to have less intention to wear a helmet and to respect the ban on drinking and driving compared to participants of Protestant faith ($M=4.22$; $SD=0.732$) ; those of Catholic faith ($M=4.41$; $SD=1.472$) and those of traditional faith ($M=4.49$; $SD=0.696$). These results show that the averages obtained by the participants according to their religious affiliation are different, but they do not show whether these differences are real from a statistical point of view.

Table 8. Comparison of means of risk-taking dimensions among participants according to religious affiliation

Source	Dependant variable	Sum of squares	Type III Df	Mean squares	F	Significance
Religious affiliation	Attitudes	16,717	3	4,179	8,287	,181
	Injonctives norms	15,338	3	3,834	11,10	,049
	Descriptives norms	41,451	3	10,352	18,90	,079
	Intention	44,589	3	11,147	8,45	,083
	Perceived behavioural control	131,993	3	33,003	47,22	,000

Note : Ddf= Degree of freedom

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Table 8 presents the results of the comparisons of the means obtained by the participants on the dimensions measuring risk-taking among motorbike taxi drivers. These results show that the differences are only significant at the level of attitudes ($F(2,97) = 8.287$; $p=.181$). This means that participants of Muslim religious affiliation do not respect the wearing of helmets and the prohibition of alcohol consumption while driving.

DISCUSSION

Four secondary factors were analysed in this study. These factors include: age, education, years of experience and religious affiliation. This first section of our work is devoted to discussing and explaining the results obtained between these factors and risk-taking among motorbike taxi drivers (non-use of helmets and alcohol consumption while driving).

Age and risk-taking among motorbike taxi drivers in relation to helmet use and drinking and driving

Age had an effect on risk-taking among motorbike taxi drivers ($F(3,96) = 11.158$; $p=.007$). These results show that the older motorbike taxi drivers are, the more likely they are to take risks on the road, i.e. to wear helmets less and to respect the prohibition on drinking and driving less. This trend was observed in injunctive norms ($F(3,96) = 12.871$; $p=.010$), descriptive norms ($F(3,96) = 12.087$; $p=.014$), perceived behavioural control ($F(3,96) = 12.754$; $p=.000$) and intention ($F(3,96) = 6.918$; $p=.007$). These results are different from the results of the work mentioned in the theoretical reflection, which rather suggest that young people overestimate their skills (in all areas), particularly in the face of critical situations, and underestimate the dangerousness of these situations. This tendency (over-evaluation of their skills and under-evaluation of the dangerousness of situations) leads them to adopt behaviours whose purpose is the accident (Ragot & Munduteguy, 2005). Another explanation for risk-taking among young people seems to lie in the involvement of dopamine, a hormone involved in motivation and emotions. It seems to be secreted more in young people than in adults, reflecting an increase in risk-taking at this time (Mvessomba et al., 2017). The results of this work are different from ours because the oldest motorbike drivers are the most experienced, they master the roads and driving in dangerous situations (Delhomme, 1991), The feeling of self-superiority of these drivers is related to the perceived acquisition of knowledge and motor skills and because, in the final analysis, the oldest motorbike taxi drivers in our research are relatively young, being between 25 and 50 years old.

Educational level and risk-taking among motorbike taxi drivers in relation to helmet use and alcohol prohibition while driving

Education level has an effect on risk-taking among motorbike drivers. Our results suggest that there is a significant difference only in intention ($F(3,96) = 30.292$; $p= 0.159$). These results show that the higher the level of education of motorbike taxi drivers, the more likely they are to take road risks, i.e. wear helmets less and respect the prohibition of drinking and driving less. These results are contrary to research that has shown that the lower the level of education, the more risk-taking motorbike drivers are, and the higher their level of education, the less risk-taking they are (Antunes & Cavalcanti, 2002 ; Ndjiepmo, 2008 ; Plug et al., 2003). This difference in results could be due to the fact that the high level mototaxi drivers in our research claim to be more experienced due to their level of education because they know the traffic rules and can therefore easily go against them, in addition to the fact that they master dangerous driving situations (Delhomme, 1991).

Years of experience and risk-taking among motorbike taxi drivers in relation to helmet use and alcohol prohibition while driving

Years of experience had an effect on risk-taking among motorbike taxi drivers, but our results show that the differences are significant only at the level of injunctive norms ($F(2,97) = 4.459$; $p=.089$). This means that participants with 11-15 years of experience seem to feel that people important to them (colleagues, friends and relatives) are less supportive of wearing helmets and respecting the prohibition of drinking and driving than participants with 6-10 years of experience and those with 0-5 years of experience. These results indicate that the more experienced motorbike taxi drivers are, the more they take risks on the road, i.e. they wear helmets less and respect the prohibition of alcohol consumption while driving less. These results can be justified by the fact that the most experienced motorbike taxi drivers have a greater mastery of dangerous driving situations and are therefore more inclined to take risks (Delhomme, 1991). This self-superiority refers to a feeling of mastery of the road environment and their feeling of self-superiority is related to the perception of acquiring knowledge and motor skills. It is also worth noting that experienced motorbike drivers have either been involved in an accident or witnessed an accident. This leads them to have a lower probability of an accident than less experienced drivers. Several studies have shown this (Ragot & Munduteguy, 2005 ; Rousseau & Monteau, 1991).

Religious affiliation and risk-taking among motorbike taxi drivers in relation to helmet use and alcohol-free driving

Religious affiliation has an effect on risk-taking among motorbike taxi drivers, the results of our research show that the differences are only significant at the attitudinal level ($F(2,97) = 8.287$; $p=.181$). This means that participants with a Muslim religious background do not respect the wearing of helmets and the prohibition of drinking and driving. These results are in line with those

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of Ngah essomba, 2017 ; Nguetsa, 2012 ; Nkelzok and Djebi, 2018. However, this research has some limitations. The first is the use of both the priming texts (activating Christian beliefs and not activating them) and Goggin's (2007) belief scale. This joint use of the priming texts and the belief scale may have led to the effect of the priming texts being attenuated among motorbike taxi drivers. Another limitation is that we activated Christian beliefs and non-Christian beliefs in a global way. To overcome all these difficulties, in future investigations we will be able to examine the effect of priming texts on the one hand, and the joint effect of Christian beliefs and other contextual factors in explaining the behaviour of motorbike taxi drivers on the other. Nonetheless, the results of this work can be used to design prevention and education programmes that take into account the effect of perceptual biases in general and Christian beliefs in particular on the behaviour of Cameroonian motorbike taxi drivers.

In this paper, which focused on risk-taking among Cameroonian motorbike taxi drivers, we applied a quantitative data analysis method through the one-factor ANOVA test and presented our results and discussed the results of the analysis of the four socio-demographic factors (age, level of education, years of experience and religious affiliation) and risk-taking in relation to helmet use and the prohibition of alcohol consumption while driving. These results showed that these four factors influence the behaviour of Cameroonian motorbike taxi drivers in their workplace. For future research we will combine other psychological factors related to risk taking.

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