



## Original Research Article

# Fraud likelihood determinants in the road toll collection system in Cameroon

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The study set out to investigate fraud likelihood determinants in the road toll collection system in Cameroon. The specific objectives were to examine fraud likelihood determinants in the management of road toll ticket production, inventory of vehicles accessing tollgates, sale of road toll tickets, physical security of money collected at the tollgate, and physical security of money conveyed to the public treasury. The poor physical state of toll roads in Cameroon points to the degree to which toll collections are used in road maintenance. The roads are usually plagued with potholes and poor or no road signs leading to deadly road accidents. The researcher collected data through a questionnaire, and regressed using a summation model. The findings revealed that toll ticket production, ticket sales, and physical security of money at tollgates have crucial internal control weaknesses that create fraud opportunities. It was therefore recommended that manual tollgate systems be converted to electronic systems so as to cut down on tollgate traffic congestions and secure more road toll cash inflow for road maintenance. The second recommendation was that toll fee collections be visibly seen by tollgate actors to be used for road maintenance when they use good roads. In this way, their road ethics increases while road toll evasion reduces. The third recommendation was that government fight against corruption and fraud should move from rhetoric to action. Lastly, monitoring and impromptu audits at tollgates be instituted and activated.

**Keywords:** Road toll collection, occupational fraud, tax evasion, tax ethics, tollgate fraud, automated toll system

## INTRODUCTION

In many countries in the world, road deteriorations have been attributed to inadequate and indeterminate road budgetary allocations. The consequence being a significantly increased in transport costs. In this respect, highway professionals solicit the creation of road funds managed by independent road boards comprising user representatives. Such road boards are empowered to determine road use charges and the level of road maintenance expenditure (Ken and Zmarak, 1999).

Scarcity of financial resources to construct and maintain roads in Cameroon in the 1990s obliged the creation of road tolls on the 7<sup>th</sup> of January 1993. Misappropriation of the toll revenue by the toll system staff caused the government to

introduce in October 2005 the Road Revenue Security Programme (RRSP). The RRSP's objective was to secure road revenue from road toll, axle tax, road user fee, and road fines (Andzongo, 2020). A Prime Ministerial Decree No. 98/013 of January 28, 1998 in Cameroon sets the terms of tolls on certain bitumen axes of the national road network. The axes and toll checkpoints are determined by the Minister in charge of Transport [Article 1(3) (2)]. Pedestrians, two-wheeled vehicles, ambulances, military and police vehicles are exempted from paying toll fee (Chapter 1, Clause 5). The toll checkpoints are managed by concession granted to legal persons governed by Cameroonian law and having the approval of the Minister of

Finance [Section 17(1)]. Before granting the approval according to Chapter 3 (12) of the prime ministerial decree, the Minister of Finance consults the Inter-ministerial Committee for monitoring road toll operations to deliberate on the technical and professional knowledge, and on the financial and economic capacities of the applicant(s).

Up till now, Cameroon still operates a manual toll road system. At the tollgates, motorists are charged a toll of FCFA 500 for access or passage. The tollgate operator who collects the fee issues a dated receipt bearing the name of the toll station before physically raising the barrier to grant the toll payer access. Where a motorist deliberately and illegally escapes payment of tollgate fee and forcefully accesses the tollgate, a high penalty is levied on the motorist to dissuade other motorists from such road tax evasion at tollgates. At every tollgate, there is a noticeboard on which is written: Law no. CF L/F 1998/1999 Article 12 which obliges defaulters to pay six times the amount (that is 3,000 FCFA). Road tolls could then be described as a form of road use tax. They may vary with vehicle type and weight, and the collection methods may be manual or electronic. However, in Cameroon a flat rate of FCFA 500 is paid by all toll payers and the toll fee collection method is still manual.

Globally, tollgate fees or charges have existed for many years and transport policy makers consider them an excellent tool for the attainment of better road transport management (Albert and Mahalel, 2006). Tollgate fee collection ensures quicker funds for road maintenance than other government revenues alone (Odeck and Kjerkreit, 2010). In addition, there have been an increased number of vehicles on highways resulting in environmental deterioration. In order to curb this, tollgate fees are introduced as a good means to reduce traffic and improve on the environmental hygiene (Jou and Huang, 2014).

Despite the interest demonstrated by many countries to effectively manage their road toll systems, there have been enormous challenges operating an efficient and sustainable road policy at the lowest cost possible. In 1921 for example the United Kingdom Road Fund was set up and later abandoned in 1937 because it was ineffective as a method of road financing and maintenance (Davis and Georgina, 1999). However, many other African countries including Zimbabwe, South Africa, Mozambique, and Lesotho still successfully run tollgates amidst challenges. A successful operation of a toll system requires an effective and efficient management. Mismanagement of toll collections usually leads to very poor road infrastructure. On August 22nd 2015 John Fru Ndi, chairman of the leading opposition political party in Cameroon (Social Democratic Front, SDF) caused the closure of the Matazem tollgate on the Bafoussam-Bamenda highway in Cameroon. The SDF political party chairman condemned the unwarranted negligence by the Cameroon government to build or maintain the Bafoussam-Bamenda road despite the huge toll fee collections at Matazem. He said the Matazem tollgate on the Bamenda Mbouda highway was closed until when the Bamenda-Mbouda highway was tarred (Mbunwe and Niyang, 2015).

Interestingly, seven years counting the tollgate still remained closed as the Bafoussam-Bamenda road remains horrendous.

Tollgate fraud in Cameroon has become increasingly alarming. A Supreme State Audit report disclosed that over 5 billion FCFA collections from several tollgates in Cameroon were lost in fraud between the years 2007 and 2011. The Chiefs of tollgates were according to the report identified to have been involved in the sale of parallel tickets (Yerimah, 2015). Parallel tickets may be described as illegal road toll tickets sold at toll gates. Road toll ticket fraud according to the report begins at the National Printing Press in Yaounde where the tickets are printed. For instance instance, in 2011 the Programme for the Safety of Road Revenue requested for 13,687,000 tickets, but production by the National Printing Press was 14,885,000. The excess of 1,198,000 tickets were parallel tickets fraudulently sold at the Cameroon tollgates and money entered into personal pockets. In 2009 a government control mission exposed a wide toll system misappropriation scam of FCFA 7,539,553,000. The Minister of Finance (Alamine Ousmane Mey) dismissed all the corrupt officials that were involved in the fraud. The consequence was that the tollgate revenue had an increase of FCFA 200 million in 2014. Total toll revenue of FCFA 6.132 billion was realised compared to FCFA 4.696 billion collected in 2012.

Recurrent problems concerning toll revenue generation in Cameroon led to the launching of the first 14 automatic toll booths in Cameroon on the 10<sup>th</sup> of December 2020 in Mbankomo by the Minister of Public Works, Emmanuel Nganou Djoumessi. The 14 tollgates<sup>1</sup> envisaged for automation produce 75% of toll collections in Cameroon. Razel BEC and Egis Project S.A. won the contracts worth FCFA 34,752 billion to do the construction (Mbodiam, 2020). It should be noted that the project for automation of the Cameroon toll system was written in 2009 and was only launched 11 years later. Since the launching it is close to 2 years yet work on the automation has not started. According to the Minister, the Cameroon road toll system has not yet attained its full potentials due to high rate of fraud and questionable management of the manual system. He described the Cameroon toll infrastructure as being obsolete, and the toll contractors as being frauds who carry out illegal dealings with motorists for personal gains. Consequently, only 50% of toll collections are paid to the government treasury. The government therefore in 25 years (1995-2020) lost some 100 billion FCFA to fraud (Andzongo, 2020).

Given all these concerns expressed by the Ministers of Finance and Public Works with regards to road toll collection fraud in Cameroon, and given the poor road infrastructure and maintenance all over the country that

<sup>1</sup>*Nsimalen (Yaoundé-Mbalmayo); Mbankomo (Yaoundé-Mbankomo); Tiko (Douala-Mutenguene); Edea (Douala-Edea); Boumnyebel (Edea-Boumnyebel); Nkometou (Yaoundé-Obala); Bayangam (Bangangte-Bafoussam); Bafia (Obala-Bafia); Mbanga (Douala-Mbanga); Manjo (Mbanga-Manjo); Banja (Bafang-Bafoussam); Matazem (Bafoussam-Bamenda); Foubot (Bafoussam-Foubot) and Dschang (Dschang-Bamougoum) Journal du Cameroun (2020).*

lead to deadly road accidents every year, the researcher sought to investigate the fraud likelihood determinants in the road toll collection system in Cameroon. The specific objectives were to examine fraud likelihood determinants in the management of road toll ticket production, inventory of vehicles accessing tollgates, ticket sales, physical security of money collected at the tollgate, and physical security of money conveyed to the public treasury. The other sections of this study reviewed the related literature, presented the methodology adopted, and gave an analysis and discussion of the results, policy implications and a conclusion.

## Review of Related Literature

### Conceptual literature

The first concepts to be reviewed are those related to road tolls. The Collins English Dictionary defines a toll or toll charge as an amount of money levied for the use of certain roads, bridges, etc., to cover the cost of maintenance. In the context of Cameroon this charge is 500 FCFA or \$1. Meanwhile Merriam Webster Dictionary defines a tollgate as a point where the driver of a vehicle must pay a toll charge (before being granted access). Toll roads are therefore roads or highways where toll charges are incurred by motorists. A tollgate system may be manual or automatic. On manual toll roads a toll worker collects toll charges from drivers and issues a receipt before manually raising the barrier to allow passage. On the other hand, automated toll road systems permit drivers to insert payment into a toll machine. On receipt of the required payment, a receipt is issued and the barrier lifted automatically to grant the driver access (Maria, 2015). Some electronic or computerised tollgate systems do not have physical barriers. They have wireless transponders where drivers have prepaid accounts, or toll charges are billed and collected. On such automated toll road systems cameras are installed to capture images of vehicles and information on their license plates when they access toll areas. Toll bills are sent automatically to drivers based on the address data provided when the vehicle was being licensed or registered.

The next concept is occupational fraud. This is the use of one's occupation for personal enrichment when a worker consciously misuses or misapplies the assets of the employing organisation (Association of Certified Fraud Examiners - ACFE, 2018). It is therefore a fraud carried out from within an organisation against the organisation by the very people who are assigned the responsibility to protect and manage the assets of the organisation. Complicity among workers in the organisation or among workers in the entity with third parties usually expedites the occupational fraud occurrence as corruption increases. According to Transparency International (2019) corruption is the abuse of entrusted power for private gain. This clearly relates to how workers in the Cameroon toll system devise various illicit means to enrich themselves at the expense of the State of Cameroon and its people. Kelly

(2015) asserts that Cameroon's effort to fight corruption is not yet sincere and void of government political will. This intimates that most Cameroon government officials tend to profit a lot from corruption and fraud. Fraud costs some organisations 1.5 billion dollar per annum with far reaching consequences on the welfare of citizens (Dzomira, 2014).

Tax evasion is a relevant concept too in this research. It occurs when the taxpayer consciously and unlawfully escapes payment of a tax or taxes through fraudulent practices (Kalpana, 2016; Drogalas et al., 2018). Tax evasion is any unlawful arrangement that allows a tax obligation to be hidden or overlooked causing the tax payer (in this case the tollgate fee payer) to pay less tax than lawfully obliged to pay (OECD, 2017). With the high level of corruption in the Cameroonian tollgates, sometimes such defaulters still pay something less and are not receipted. Meanwhile, where public services are effectively provided to the citizens of a country, tax evasion reduces and the 'social norm' of compliance increases (Martinez-Vazquez and McNab, 2003). This is because toll payers (motorists) see themselves riding on good roads and can easily attribute the good road infrastructure to effective use of toll fee collections.

Tax ethics, another concept may be easily confused with tax evasion when in fact it is different and should not be used interchangeably. Tax ethics is the moral responsibility of a taxpayer to pay his taxes. It depends on the relationship prevailing amongst the government and the citizen/taxpayer (Drogala et al., 2018). Where tax ethics is truncated, possibly because of a deteriorated rapport between the government and the taxpayers, tax evasion upswings (Torgler and Schneider, 2009). This could arise where the toll payer perceives that the government is not using the toll collections effectively and efficiently in constructing and/or maintaining the road infrastructure. Tax ethics is influenced by non-monetary incentives offered by the government to its citizenry, thus persuading them to willfully comply with their tax obligations (Olsen and Kirchler, 2012).

### Theoretical literature

One of the theories closely allied with tollgate fraud is the benefit theory. As it concerns taxation, the benefit theory requires that taxes be seen as payment for services provided by the government to the taxpayers. Such services should be proportionate to the taxes paid. This infers that the more road services a motorist gets from the government in the form of good road infrastructure, regular road maintenance, and visible road signs, the more he pays the tollgate fee. In the same vein Adam (1950), requires citizens to contribute to support the government by paying their taxes proportionately to their individual abilities. However, the benefit theory is criticised for the argument that if the benefit theory of taxation was indeed realistic, then the underprivileged will pay a higher tax compared to the well-off since they benefit from public services provided by the state more than the affluent. If interpreted

this way it means the benefit theory of taxation will contradict the principle of justice and equity which requires a tax payer to pay tax as a percentage of his/her income (Jhingan, 2004). Tax should be paid according to the payer's ability, for it to be rated as equitable and just (Anyanfo, 1996). Unfortunately, with the Cameroon toll fee collection system, irrespective of the type of car, a flat rate of 500 FCFA is charged.

Another related theory is Donald Cressey's 1953 fraud triangle theory. It avows that all what people do is driven by something (Abdullahi et al., 2015). Cressey's study on fraud found out fraud is committed as a result of pressure, rationalisation, and opportunity. Pressure comes from unquenchable greed, bad habits, and psychosis by management and staff. Rationalisation comes when the fraudsters try to justify why the crime is committed. Weak internal controls create fraud opportunities. Opportunities and motivation interact. Consequently, the higher the internal control weaknesses are known the more the motivation to carry out a fraud increases.

Wolfe and Hermanson (2004)'s fraud diamond theory is an extension of the Cressey's 1953 fraud triangle theory. In addition to pressure, opportunity, and rationalisation, Wolfe and Hermanson (2004) brought in capability. They argue that without the competence to recognise the crack in the internal control system as an opportunity to take advantage of, even with the existence of pressure, rationalisation, and opportunity (as in the fraud triangle), fraud will not likely occur (Sorunke, 2016; Tugas, 2012). This implies that road toll workers must be able to recognise the control weaknesses in the system as an opportunity before they engage in the fraud.

In addition to the diamond theory, the pentagon theory was introduced by adding one element termed arrogance. Crowe (2011) stresses that senior management staffs have a huge ego, an intimidation attitude, and a monocratic management style that empower them to challenge the internal control system by perpetuating fraud and concealing it at every cost (Marsellisa, 2018). This may be the case with the senior staff involved in managing the production and sell of parallel toll tickets.

Another theory related to toll fraud is the agency theory which establishes the affiliation amid two parties (principal and agent). The two parties do not have similar interests and equal access to the entity's data base. The affiliation usually leads to an agency dilemma, where the agent does not act in the best interest of the principal (Guangdi and Fulwood, 2013). In this case, the road toll staff acting as agents to the state of Cameroon or the principal strives hard to attain its personal interest at the expense of that of the state.

### **Empirical literature**

Vythelingum et al. (2017) in a study to evaluate tax morale among Mauritian taxpayers disclosed that, tax compliance rises once the tax payer believes that the tax and legal systems are trustworthy. Drogalas et al. (2018) in a related

study assert that tax circumvention rises when taxpayers feel discontented because of the way public expenditures or resources are misplaced. This is described as money laundry from the government treasury and needs severe actions against it (FATF, 2015). The tollgate frauds may escalate when there is no hope in the tax and legal systems.

Arora and Vanita, (2010) studied tax evasion and corruption in India. Their findings among other things revealed that social acceptance of tax evasion, low tax ethics, and corruption, make up the principal explanations why tax evasion flourishes in India. Furthermore, Furthermore, the tax authorities were morally bankrupt and exercised unwarranted discretionary powers that hearten corruption.

Aksoy and Kahyaoglu, (2012) observed that amongst other determinants of fraud, corporate governance has a lot of influence on the occurrence of fraud. They noted that extensive corporate misconduct and misreporting reveal a failure of auditing and corporate governance in the global economy. Similarly, Aghghaleh and Mohamed (2014) found that leverage and scale to account receivables positively relate to fraud. This implies that having access to financial resources without proper check and balance system exposes individuals to fraud, with far reaching consequences on institutions and the global economy. There was further evidence of a ticket used multiple times, especially with public transporters who are well known to the toll gate collectors. According to the Organisation for Economic Cooperation and Development (2012), there are international drivers to fraud and corruption, citing the case of legitimisation of corrupt leadership in foreign institutions.

Tolling systems are generally used as alternative means to mobilise domestic revenue to develop and maintain a country's road infrastructure. In a study to examine the effectiveness of tollgate systems as an alternative domestic revenue mobilisation opportunity in Zimbabwe, Zhou and Chilunjika (2013) assert that tolling systems provide a self-financing model for the upkeep of road infrastructure in Zimbabwe inasmuch as they are well managed. Their investigation proved that since the enforcement of tollgates in 2009 in Zimbabwe, revenues from tollgates have surpassed revenues from traditionally prominent sources such as transit fees and fuel levy. However, they did not see a proportionate match of toll revenue inflows with enhanced road development and maintenance. The government of Zimbabwe is therefore expected to make this match more visible by using the toll collections proportionately on road maintenance. They also advocated for a shift from manual toll systems to electronic or automated tolling systems so as to improve the efficiency in revenue collection and also lessen burdens with tollgate congestions.

### **METHODOLOGY**

This research was conducted using a summation model as

the determinants of fraud accounting are cumulative, acting together and creating both micro and macro effects on the revenue generation capacity of tollgates and consequent transfer to the public treasury. Primary data was collected in the month of January 2022 with the help of a questionnaire administered to 201 actors in the tollgate production and commercialisation chain. An empirical and generalised model was formulated based on both theoretical and empirical underpinnings as follows:

$$FLRTCS = a_1TP + a_2IVAT + a_3TS + a_4PSMT + a_5PSMPT + \alpha \dots\dots\dots (1)$$

Where:

FLRTCS = Fraud likelihood in road toll collection system  
 TP = Ticket production  
 IVAT = Inventory of vehicles accessing tollgates,  
 TS = Ticket sales,  
 PSMT = Physical security of money at tollgates,  
 PSMPT = Physical security of money to the public treasury,  
 $\alpha$  = Error term, and  
 $a_1 - a_5$  = Parameters to be estimated and interpreted based on elasticity.

A justification for the log transformation was as follows:

$$FLRTCS = a_1\ln TP + a_2\ln IVAT + a_3\ln TS + a_4\ln PSMT + a_5\ln PSMPT + \alpha \dots\dots\dots (2)$$

Equation (2) is a log linear transformation of equation (1). Though Shacham, Wisniak and Brauner (1993) argue that linearisation leads to error and misleading parameter estimates, Asghari et al. (2022) are of the view that linearisation reduces operational complexities and allow for easy decision making. This is the view adopted in this study. They note that some mathematical operations may not be efficiently conducted on non-linear functions. Non-linear equations according to Morgan (2015) can be difficult and complex to solve explicitly. The test for reliability was conducted using Cronbach's alpha.

## Presentation and discussion of regression Results

The research tested for reliability using the Cronbach's alpha criteria. The results indicated that the research instrument was efficient. This is because as a measure of internal consistency, there was evidence that the question items measuring each of the constructs were very closely related, with a coefficient of  $\alpha = 0.92$ . A regression of the model using the Taylor Approach to Ordinary Least Square Estimation Technique led to the following results with t-values in parenthesis, and \* and \*\* indicating 1% and 5% levels of significance respectively:

$$FLRTCS = 2.71 + 0.21TP + 0.12 IVAT + 0.08TS + 0.22PSMT + 0.14PSMPT (1.15) * (-2.39) ** (1.15) * (-2.97) ** (-2.08) ** (1.37) *$$

Generally, the results suggest that tollgate fraud remains one of the crucial problems the State of Cameroon needs to seriously handle in order to ensure meaningful growth of the economy. A lot of road toll collections fraudulently leak out of the road toll cash flow system. The constant term is

positive, precisely +2.71. This implies that there are many more determinants of road toll fraud than portrayed by the model used in this study. Though insignificant at 1% level, no amount of fraud is too insignificant not to cause damage to a developing economy like Cameroon.

Specifically, the result reveals potentials of high level fraud during ticket production (TP). It contributes to some 21% of fraud in the tollgate fraud system. This finding is consistent with the report of Yerimah (2015) in which toll gate top management was involved in the sale of parallel tickets usually produced by the same Cameroon National Printing Press. This is a technical fraud that requires a special mission to uncover, as traditional road users will hardly distinguish between original and fake tickets since most of them are printed from the same system but not registered. It is significant at 5% test level (with t-values = -2.39), it is therefore important to strictly supervise toll ticket production and distribution by people of high moral standing. (Dzomira, 2014) reports that fraud is costing some institutions 1.5 billion dollar annually, with far reaching consequences on national abilities to care for the citizens.

Inventory of vehicles accessing the tollgates (IVAT) positively contributes to the occurrence of fraud at the toll gates in Cameroon. The internal control involved is so weak. There exists no manual or electronic system that accounts accurately for the number of vehicles that access the tollgate. Because of this, motorists who just give tips to ticket vendors in order to evade the tollgate charge, or who pay but do not collect tickets cannot be detected. PIVAT accounts for some 12% of tollgate fraud. Although insignificant at 1% test level and a statistical value of 1.15 it must not be taken lightly. Empirically, for every 100 cars driving pass the toll gate there is evidence of at least 12 that will not be accounted for and corrupt while passing. It actually reflects the reality on the highways. State vehicles which are not military or police vehicles access the toll gates without payment of the toll fee. Some ministers, senators, and parliamentarians were also seen accessing the tollgates yet evading the toll tax.

Meanwhile, decree No. 98/013 of January 28, 1998 (Chapter 3 Clause 5) excludes pedestrians, two-wheeled vehicles, ambulances, and vehicles contributing to the maintenance of order with specific license plates. The high level government officials and/or politicians who access tollgates without paying toll fee provoke ordinary motorists to develop the audacity to negotiate their access at tollgates. However, we also found this result to be statistically insignificant (though not useless). Consequently, there is need to reinforce vigilance in this respect as no amount of financial crime is too small to be neglected (Peel, 2006). Security cameras may be installed to assist in proper stock taking of vehicle inventory.

The coefficient of ticket sales (TS) is positive, precisely 0.08. This means that the sale of tickets at tollgates contributes to some 8% of the overall fraud that occurs at the tollgates in Cameroon. Apart from ticket production, this is another avenue in which a good amount of leakages

occur in the state treasury. Evidence suggest that some road users pay without collecting toll receipts, while others simply exchange recent receipt for access to access the tollgate. Such tickets are immediately resold by the toll fee collector but not accounted for. Some of the toll fee payers believe that toll collections are not properly used on road maintenance so see no rationale why it is collected. This is in line with the findings of Vythelingum, Soondram, and Jugurnath, (2017) and Drogalas et al. (2018). Interestingly, the statistical value shows that it is significant at 5% level, calling for significant policy issues if the government must reduce fraud at toll stations in Cameroon. This is liken to what FATF (2015) described as money laundry from the state treasury. In situations like this, stringent approaches such as monitoring and surprise audits at tollgates are carried out to have a timely detection and control of the recurrent occupational fraud.

The variable physical security of money at tollgates (PSMT) was design to capture the level of security put in place by the government to avoid leakage of fee collected and still in the hands of collectors at tollgates. The result reveals that the security measures were not strong enough as they rather contributed more to fraud occurrence than stopping it. It takes integrity to avoid corruption at the tollgates because the liquidity temptation is relatively high due to the high level of poverty that most state workers are exposed to in the country. Most of the security forces stationed at toll gate collection points ought to check that recalcitrant commuters do not go without paying the toll charge, and also ensure that the tollgate staff do not collect money without giving tickets, or do not allow some motorist to access the tollgate without making payments. Unfortunately, some of the security men appear to be more corrupt than the ordinary toll collectors. They appear to collaborate with the tollgate ticket vendors in perpetuating toll charge evasion so as to get kickbacks. This is a justification of why despite their presence, corruption continues to rise unabated at the various road tollgates in Cameroon. There is every reason to worry about the security measures at tollgates especially as the t-statistic is significant at 5% level.

Another fraud scheme in the road toll collection system occurs during the movement of money to the public treasury. The physical security of money to the public treasury (PSMPT) is weak since there are no checks to ensure that all the collections get to the treasury. In the process of conveying collected funds to the treasury, cash collected at the tollgate leaks out of the state pocket. Result shows that about 14% of the assembled fund leaks out in this process. Though it is statistically insignificant at 1% it must not be taken lightly for no fraud is too small to ruin a nation.

### **Policy implications and conclusion**

The research probed into fraud likelihood determinants in the road toll collection system in Cameroon. It used a summation model after gathering primary data through the

use of a questionnaire administered to actors in the tollgate ticket production and commercialisation chain. The main findings reveal that ticket production, ticket sales, and physical security of money at tollgates nurse serious internal control weaknesses that create opportunities for occupational fraud to escalate in the road toll system in Cameroon.

The first recommendations to significantly minimise the tollgate fraud is that all the manual tollgate systems be replaced with electronic or computerised systems. In this way drivers deal but with toll machines which on receipt of the required payment on its own issues a receipt and the tollgate barrier is lifted automatically to grant the driver access. An electronic toll system may not necessarily have physical barriers but have wireless transponders. In this case, drivers operate prepaid accounts like they do with mobile communication network pay-as-you-go services. Otherwise, the toll bill is charged automatically to a driver's specified bank account. Automated tollgates get rid of traffic jams usually associated with manual toll systems. However, the rampant electricity and internet interruptions experienced on daily basis in Cameroon may greatly thwart the success of any electronic toll system. Besides, its realisation requires a very strong political the conception of an electronic road toll system was in 2009, the launching in 2020, and up till 2022 no construction work has begun.

The second recommendation is that since the government is not yet willing (and perhaps not yet able) to replace the manual system, it is paramount to introduce regular tollgate monitoring and surprised audits at ticket production centers and at tollgates. To facilitate this, surveillance cameras with solar power supply be installed at the tollgates to keep a record of the number of vehicles that access the tollgates.

Thirdly, the government should improve its relationship with road toll payers by maintaining toll roads properly and regularly. In this way, motorist will have faith in the government that it uses toll collections effectively and efficiently in maintaining roads. This will greatly reduce road toll evasion and increases road toll ethics.

Finally, the Cameroon government should carry out morality tests before employing managers in the road toll system. When staffs with unquestionable honesty and integrity manage the production, distribution, and sale of toll tickets, the production and sell of parallel tickets will be repressed.

This research serves as an eye opener to the government to make sure that it meets its own side of the social contract by maintaining good roads so that the motorists will see the rationale paying their toll charges willingly and joyfully.

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