

# **THE IMPACT OF THE 2003 REFORMS ON THE PUBLIC SERVICE VEHICLE INSURANCE SECTOR IN KENYA: CASE STUDY OF ‘MATATU’**

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## DECLARATION

This research project is my original work and has not been presented for examination in any other university.

Signature ..... Date .....

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This research project has been submitted for examination with my approval as the University Supervisor

Signature ..... Date .....

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## **DEDICATION**

This research project is dedicated to my husband, James, and our two sons, Martin Njoroge and Mwaura Ngugi, for their love, patience and support that enabled me to complete the project

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## **ABSTRACT**

The purpose of this study was to determine how the implementation of Legal Notice Number 161 in 2003 by the Government has influenced insurer's practices with respect to underwriting and claims in the PSV sector. The study focused on 'Matatus' where there was little enforcement of the law prior to the introduction of the legal notice. The study had two objectives, namely, to determine how the provisions of Legal Notice Number 161 have affected the underwriting and claims process of PSV insurers in Kenya and to determine challenges faced in the underwriting and claims process by PSV insurers.

The literature review explored concepts in risk and insurance, reviewed underwriting considerations in commercial motor vehicles, moral hazard and adverse selection challenges in automobile insurance, commercial motor vehicle insurance claims process, and the commuter transport sector in Kenya. The commuter transport sector analysis of the situation before and after the implementation of legal notice number 161. Finally, it reviews general challenges faced in insuring public service vehicles in Kenya. The study used an exploratory survey design. The population of study was confined to the six insurance firms which insured PSV. Data was collected by means of a questionnaire that employed open and closed ended questions. Descriptive statistics consisting of the arithmetic mean, standard deviation, and graphical methods were used to present the findings.

The study concluded that with underwriting, after implementation of the legal notice, there was a lesser emphasis on driver related issues as seen before implementation and a greater emphasis on mechanisms that would be used to implement risk. This is seen in the emphasis on co-insurance and vehicle conditions after the legal notice was implemented. Claims related factors retained fraud detection as a top priority before and after implementation. Apparently, fraud is endemic since in both cases, the insured will always be trying to break the law and this risk would need to be mitigated. This is in a way supported by the fact that sprains and strains, which are difficult to diagnose and easy to defraud with, were the challenge that bothered

insurers the most. The top underwriting challenge, that is issuance of fake motor vehicle inspection certificates increasing insurer's adverse selection hazard, also reflected this risk.



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## **1.0 INTRODUCTION**

### **1.1 Background**

Public passenger transport in Kenya and especially in urban areas is dominated by ‘Matatu’ vehicles. The term ‘Matatu’ (popular term initially used to refer to the 14-seater vehicles used to transport fare paying passengers) is thought to be derived from a local Kikuyu vernacular term “Mang’otore Matatu”, which means “thirty cents”. In the 1960s and 1970s, this was the standard charge for every trip made. In the early 1960s, the total number of Matatus operating in the country was less than 400 and did so in the form of taxis.

The origins of ‘Matatu’ sector can be traced from the type of transport system that operated in towns in the early 1960s. Initially, the Kenya Bus Service existed as the sole legal provider of public transport services but only operated in major towns such as Nairobi (Aduwo and Obudho, 1992). It was, however, not able to cope with the increase in demand for its services.

Odero, Khayesi and Heda (2003) observed that Kenya, with an average of 20 deaths per crash each day, had one of the highest road fatality rates in relation to vehicle ownership in the world. They noted that on average, the annual death rate per crash was 6.8%, which was 30 to 40 times greater than in highly motorized countries. Despite this huge burden, road safety measures in place were ineffective, characterized by sporadic crack downs on motor vehicles following a tragic road crash.

#### **1.1.1 Public Transport Service Reforms**

The high rate of crash fatalities seen earlier were occasioned by the pre-2003 Government’s neglect of the road sub-sector over the past 10 to 15 years. In October 2003, the new National Rainbow Coalition (NARC) Government took two measures to correct the situation. First, it developed the integrated national transport policy and secondly, introduced reforms in the operation of Public Service Vehicles (PSVs) by publishing Legal Notice Number 161.

Legal Notice Number 161 sought to regulate the Public Service Vehicle (PSV) sub-sector. The key objectives of the Legal Notice were to: reduce accidents caused by over speeding; enhance commuter safety; ensure responsibility, accountability and competence of drivers and conductors; eliminate illegal drivers, conductors and criminals that had infiltrated the sector; and facilitate identification of vehicles and restrict their operation to authorized routes (Government of Kenya [GoK], 2004).

The provisions Legal Notice Number 161 are: Fitting of speed governors in all PSVs and commercial vehicles whose tare weight exceeded 3,048 Kgs in order to limit speed to 80 kph; Fitting of seat belts on all vehicles (public, commercial and private); employment of drivers and conductors on permanent basis; issuing of badges and uniforms to PSV drivers and conductors; indication of route details and painting of yellow band on Matatus for purposes of easy identification; re-testing of drivers after every two years and finally, every driver to prominently display on the front windscreen, his or her photograph of postcard size, showing the head and shoulders taken full without a hat.

The photograph together with particulars of the driver's identity card was to be approved by a police officer of or above the rank of a superintendent. There was also the requirement that vehicles meeting these conditions be inspected by the Government motor vehicle inspection centres in different parts of the country for testing and certification. It indicates that any person who contravenes or fails to comply with these provisions, and owns, drives or has charge of a PSV, will be found guilty of an offence and will pay a specified fine or face imprisonment. A passenger found not wearing seat belt will also be liable to pay a specified fine.

There have been a number of criticisms of the Legal Notice Number 161. First, Gachuki (2004) observed that its provisions were not new since the Traffic Act 403 section 42(1) and (3) of 1975 specified speed limits for PSV vehicles and Act No. 10 of 1984 set out rules for drivers and conductors. Gachuki concluded that the key weakness is the lack of enforcement. Secondly, Gachuki noted that the rules were discriminatory in so far as their enforcement targeted mainly PSV. Gachuki argued that the rules should be applied to all vehicles including private ones. The reason for his argument was that whereas say, Matatus caused about 19% of the accidents on Kenyan roads, private vehicles caused 25% of the accidents.

Thirdly, the provisions were expensive to adopt as they involved installation of speed governors and reconfiguring the internal seating arrangement. However, it had been pointed out that part of this high cost would be recovered from reduced insurance premiums. Fourthly, it resulted in reduced income for the operators owing to the fact that the seating capacity of the smaller ‘Matatu’ vehicles (a standard 14-seater vehicle commonly referred by the vehicle’s model or its commercial brand name) was reduced from 18 to 14 passengers. Fifth, there were additional monetary and time costs owing to the fact that each PSV vehicle had to be inspected by the Vehicle Inspection Unit once the seating capacity was modified and the gadgets had been fitted. Finally, the enhanced regulatory requirements increased the possibility of extortion for bribery by the principal agents of the government (Gachuki, 2004).

### **1.1.2 The Public Service Transport Insurance Sector in Kenya**

In 1973, the then President Jomo Kenyatta, responding to lobbying from ‘Matatu’ operators declared that Matatus were a legal mode of transport. They could carry fare paying passengers without obtaining special licenses to do so but had to comply with existing insurance and traffic regulations (Aduwo et al., 1992). By 1990, of the 333,300 vehicles registered in the country, 17,600 were Matatus (Bhushan, 1993 cited in Muyia, 1995). By 2003, the numbers of Matatus operating in both urban and rural areas were estimated at 40,000 (Asingo, 2004). They provided employment to over 160,000 persons and generated 1.09 billion in revenue for the Government in the form of charges for licenses, duty, Value Added Tax and other taxes (Chitere et al., 2005).

Other Public Service Vehicle (PSV) passenger carrying operators also include minibuses and buses. Albeit this category was not as notorious as the 14-seaters in terms of non-compliance to Government regulations, they also did not comply with many safety features as subscribed to by insurers and the Government. On the downside, the growth of the passenger transport sector was accompanied by increasing road accidents that threatened the commuters’ safety. Between 1963 and 1989, these accidents increased from 3,578 to 10,106, an increase of approximately of 282% (Muyia, 1995). Of the casualties arising, 10.2% were fatal, 33.7% represented serious injuries and 56.1% were minor injuries.

Before the advent of Legal Notice Number 161, the work hours in the informal PSV sector were long, workers were liable to fatigue, were underpaid, would engage in drunken driving and many lacked formal driving training and licenses (Khayesi, 1999). Additionally, there was the use of young, inexperienced drivers (or squad drivers) as backups to the regular employed drivers. Many of the PSVs were unroadworthy vehicles lacking the necessary safety features such as seatbelts and driving mirrors. There was also the lack of enforcement of the law.

Laxity in law enforcement invited criminal elements such as the *Mungiki* and *Taliban* (criminal gangs who extort money from the ‘Matatu’ owners), a situation that in turn led to anarchy in the sector. Other traffic offences included PSV owners setting high daily collection targets that necessitated over speeding and overloading and the presence of fragmented cartels to whom PSV owners paid money to be allocated routes. There was also the use of fake motor insurance certificates and collusion between operators and police to defraud insurers. The insurers bore the brunt of the many ensuing accidents and insurance claims (Muiya, 1995).

Death on Kenyan roads posed a threat to the country’s economy and was causing concern within the insurance industry. In response to this state of crisis, insurers would refuse to cover routes with high accident and claim rates in order to limit their risk exposure (Mbogo, 2008). Local insurers additionally insisted on PSVs under comprehensive insurance cover using insurer approved garages for any repairs, maintenance or inspection to minimize fraud. Use of squad drivers implied that when underwriting ‘Matatu’s’, insurers had to factor in the increased risk. In order to counter the increased exposure, insurers normally charge a higher excess when the ‘Matatu’ driver is below 25 years of age. Today, after the implementation of Legal Notice Number 161, 13.6% of insurers underwrite the sector.

## **1.2 Statement of the Research Problem**

The introduction of Legal Notice Number 161 was aimed at curbing the malpractices in the ‘Matatu’ sector cited earlier. Whether its objectives have been attained remains a matter of contention as there appear to be different degrees of compliance and a lapse back to old practices. Naturally, insurance companies that underwrite policies covering

the sector will be impacted differently owing to the varying risk exposures that determine differentials in losses incurred.

A number of studies have been done in relation to the PSV sector in Kenya. Muchilwa (2004) conducted a study on 'Matatu' owner's response to the changing government regulation in Kenya. This was a study on what the owner's thought or did in relation to the introduction of Legal Notice Number 161. The study revealed that some owners were positive about the idea and expressed confidence that the sector was headed in the right direction. Others, who were looking at the short term complained about the huge costs of complying with the requirements of the notice. Also, quite a number of new investors were found to be eager to join the sector.

Mumenya (2005) investigated the perception by stakeholders of the new traffic regulations in Kenya. The study approached the issue from the perspective of both the operators and commuters. The operators complained about harassment by police enforcing the notice. Mumenya further explains that they were forced to bribe police in order to get their way around. Others, especially the older ones were positive about the rules in helping restore order in the sector. Commuters on the other hand were delighted in that they could travel in comfort and safety. However, they complained about the increased costs of travel.

Other studies done on the sector are those by Mwaura (2002) on perceived service quality 'Matatu' sector and Ndole (2006) who conducted a survey of the pricing practices of public transport bus companies in Kenya. Mwaura's study revealed that most commuters perceived service quality in the sector as very poor. Ndole's study revealed that the bus companies used discriminatory pricing, charging different prices for different routes based on the conditions of the roads and security. None of these studies has investigated the impact of Legal Notice Number 161 on the insurance industry. As such, the purpose of this study was to determine how the implementation of Legal Notice Number 161 has influenced insurer's practices with respect to underwriting and claims in the PSV sector.

### **1.3 Research Objectives**

To determine how the provisions of Legal Notice Number 161 have affected the underwriting and claims process of PSV insurers in Kenya.

To determine challenges faced in the underwriting and claims process by PSV insurers.

#### **1.4 Significance of the Research**

The study will be of use to insurers in helping them evaluate the influence of Legal Notice Number 161 on their policies regarding insurance covers targeting the PSV industry. Management in these institutions will be able to utilize the findings of this study to determine how to allocate their insurance portfolios amongst the various PSV operators to minimize losses.

Secondly, the research will benefit investors and stakeholders in the PSV industry. They will gain through being able to identify challenges involved in underwriting of PSVs in the insurance industry. They could then use this information to try and adopt business practices that mitigate the risks involved. This would in turn result in a win-win scenario whereby both insurer benefits from reduced liability and the insured gains from reduced premiums paid.

Thirdly, The Government, through the Ministry of Transport will be able to identify gaps in compliance using insurance data and other findings. The Ministry can then formulate policies to strengthen the provisions of the Legal Notice Number 161 as well as influence the traffic law enforcers to ensure even greater compliance. Finally, the findings of the study will benefit researchers in the academic and business world and will also provide information on areas for further study.



## **2.0 LITERATURE REVIEW**

### **2.1 Introduction**

The literature review explored concepts in risk and insurance, reviewed underwriting considerations in commercial motor vehicles, moral hazard and adverse selection challenges in automobile insurance, commercial motor vehicle insurance claims process, and the commuter transport sector in Kenya. The commuter transport sector looks at the situation before and after the implementation of legal notice number 161. Finally, the review looks at general challenges faced in insuring public service vehicles in Kenya.

### **2.2 Risk and Insurance**

Risk is a concept that denotes a potential negative impact to an asset or some characteristic of value that may arise from some present process or future event (Douglas and Wildavsky, 1982). In everyday usage, risk is often used synonymously with the probability of a known loss. Kimball (2000) defines risk management as the human activity which integrates recognition of risk, risk assessment, developing strategies to manage it and mitigation of risk using managerial resources. The strategies include transferring the risk to another party, avoiding the risk, reducing the negative effect of the risk and accepting some or all of the consequences of a particular risk. The objective of risk management is to reduce different risks related to a pre-selected domain to a level accepted by society.

Insurance is a form of risk management primarily used to hedge against the risk of a contingent loss. It is a risk-reducing investment in which the buyer pays a small fixed amount (the premium) to be protected from a potentially large loss. An entity seeking to transfer risk becomes the “insured” party once risk is assumed by the “insurer”, the insuring party, by means of a contract, called an “insurance policy” (Shavell, 1979). Generally, an insurance contract includes, at a minimum, the following elements: the parties (the insurer, the insured and beneficiaries), the premium, the period of coverage, the particular loss event covered, the amount of coverage (i.e., the amount to be paid to the insured or beneficiary in the event of a loss) and exclusions (events not covered).

An insured is thus said to be “indemnified” against the loss events covered in the policy. When insured parties experience a loss for a specified peril, the coverage entitles the policyholder to make a “claim” against the insurer for the covered amount of loss as specified by the policy. The fee paid by the insured to the insurer for assuming the risk is called the “premium” (Dionne and Doherty, 1994). Insurance premiums from many insured’s are used to fund accounts reserved for later payment of claims-in theory for a relatively few claimants-and for overhead costs. So long as an insurer maintains adequate funds set aside for anticipated losses (i.e. reserves), the remaining margin is an insurer's profit.

### **2.3 Underwriting Considerations in Commercial Motor Vehicles**

When insuring commercial vehicles, consideration is given as to the type of cover required. There are four basic types of cover available. These are the Road Traffic Act Cover (RTA), Third Party Only (TPO) Cover, Third Party Fire and Theft (TPF&T) Cover and Comprehensive Cover (Kerby and Williams, 2004). The RTA cover is the least expensive level of cover provided by motor insurers. Though rare, this type of cover is provided on evidence of a poor driving or conviction record. It is also provided in case of extensive damage to a vehicle until satisfactory repairs are undertaken. The basic RTA cover provides for unlimited legal liability to third parties for death or physical injury to any person which is unlimited in amount and for damage to third party property up to a given capped amount; emergency treatment payments under the RTA; and legal costs incurred in defending action for damages among other items.

TPO insurance is that which covers against liability which the insured may incur to another person. Every driver in Kenya has to be covered for third party motor insurance. If the driver damages someone else’s car or injures someone (the third party), the third party insurance will pay for any damages due to the third party. The guilty party will only be able to claim for damage to their own car if they have comprehensive insurance (Cummins and Tennyson, 1996). TPO cover extends third party liability cover to any situation involving a motor vehicle. Whereas RTA cover applies only to ‘on the road’ incidents as defined in the Act, TPO policies cover applies to ‘off the road’ incidents as well.

TPO policy also makes provisions for meeting legal costs depending on the vehicle class. The insurer will be duty bound to defend the policyholder in court in the event of liabilities or damages that may be the subject of a claim. By representing the policyholder, the insurer can then control the case to some extent and limit their moral hazard. The insurer will then be satisfied that any third party settlement reached is the best possible resolution under the given circumstances. Passenger indemnity is also offered whereby passengers are protected against any liability incurred (The Chartered Insurers Institute, [C11], 2004).

TPF&T policy provides additional indemnity for loss or damage to the insured's vehicle caused by fire, theft or attempted theft. Theft cover is operational only in instances where there is intention to permanently deprive and also where there is loss or damage caused by unauthorized use of the insured's vehicle. 'Loss' of a commercial vehicle may also occur as a consequence of deception. Insurers normally will apply discretion as to how to treat such cases (Tennyson and Salsas-Forn, 2002). For example, an excess is normally charged to discourage small claims and unnecessary risk taking. Fire cover is also subject to interpretation. If previous fire losses on the part of the insured can be evidenced, then the insurer may want to investigate deeper. This is so especially where there is an element of financial hardship on the policyholder's part e.g. where the client is facing bankruptcy charges or is in financial distress.

Wang' (2004) observes that comprehensive insurance provides the greatest extent of cover. This is a term used to describe an insurance policy in which a wide range of risks are covered. The term comprehensive may be a bit misleading in that such a policy does not provide 100% cover no matter what the nature, extent and cause of loss. The objective is to provide cover for accidental damage to the insured's vehicle plus a range of additional benefits. These benefits could include cover on accessories that go with the vehicle e.g. spare tyres and maintenance equipment. Comprehensive insurance gives additional cover to the insured including damage to their vehicle, personal effects, overseas travel etc. Consequently, premiums payable under comprehensive cover are greater than in the case of TPO or TPF&T covers.

An accurate risk rating mechanism is vital in underwriting of insurance risk. Setting an inadvertently low rate will result in potential losses for policies underwritten while setting too high a rate, not justified by the risk level, may result in migration of business to

cheaper competitors. Selection is that process by which the market exploits inconsistencies or weaknesses in rating structures. Motor premiums are composed of two components. These are the claims ratio and the expense ratio (Wang', 2004). The claims ratio is the percentage of the premiums that is required to pay claims. The expense ratio is split into two parts, viz, the variable and fixed costs. The main variable cost is agent commission. Other expenses are classified as fixed or variable only in the long term and include the company's operating expenses that must be met regardless of the number of policies sold. The combination of the claims and expense ratios is also known as the combined operating ratio.

When insuring passenger carrying commercial motor vehicles in Kenya, insurers generally classify them in to the following categories: Omnibus, Public Hire (or Taxi), Matatus, Private Hire and Self Driven Hire (Blue Shield Insurance, 2008). The term 'Omnibus' is derived from Latin and it means 'for all'. The full name for a bus is an 'Omnibus Vehicle'-meaning a 'vehicle for all'. A bus is a large road vehicle designed to carry numerous passengers in addition to the driver and sometimes a conductor. The name is a version of the Latin Omnibus, which means 'for all'. In most cases, a bus is defined as a vehicle that carries 9 passengers or more (Wikipedia, 2008). The buses are distinguished by their axle size and number, a factor that determines their carrying capacity. These will then form the basis for insurer rating. Those buses with larger carrying capacity attract higher premiums and excess.

Public hire vehicles are Taxis licensed to 'ply for hire' and are available for use by the general public. The requirement is that such a vehicle must have less than 9 passenger seats (Kerby and Williams, 2004). In the UK, Taxis are subjected to rigorous tests and inspection procedures to ensure roadworthiness. Taxi drivers too must pass special tests, have special insurance certificates and disclose their driving history especially in relation to accidents, in order to be licensed to operate Taxis.

Taxi operators are generally classified as high risk owing to their profit orientation and insurers impose a substantial accidental damage excess. Matatus in Kenya fit into the category of commercial fare paying passenger vehicles, as they can be hailed on the street though local by-laws restrict the waiting points to certain areas such as bus stops and stations. However, most Matatus have a carrying capacity exceeding 9 passengers and

would then fall under the 'bus' category. Their greater carrying capacity implies increased risk.

Private hire vehicles are not licensed to operate as Taxis but can be hired for passenger travel through the operator's office or agency. This category of vehicles is regarded as high risk owing to the drive for maximum utilization to optimize on returns. Drivers tend to work long hours, be employed on a casual basis and suffer from prolonged periods of fatigue. However, vehicles hired from special occasions or for luxury proposes are classified as good risks by insurers. This is because the potential from accident or loss is low even though passenger liability risk may be potentially high.

Private and public hire vehicles are rated according to various factors. One factor is the location of usage. Where the vehicles are to be used in densely populated areas, the risk of accidents is high, for instance, risk of hit-and-run motorists or mere scratches on expensive paint coatings. The rating is also affected by the vehicles engine cubic capacity to weight ratio, an excess being charged where this exceeds a certain value. It is important to note that engine size alone is insufficient for rating purposes. The important point here is how fast the vehicle can accelerate and this is determined by the engine power to vehicle weight ratio. For comprehensive cover, the excess paid is substantial. The principal rating factors are type of vehicle, usage, location of use, and the level of driving proficiency (The Chartered Insurance Institute [C11], 2004).

Kerby and Williams (2004) note self drive hire vehicles include small goods-carrying vehicles and caravanettes plus normal passenger carrying vehicle of up to 12 seats. In this category, the owner makes the vehicle available to the hirer and also will have arranged insurance upfront. The hirer will be required to complete a short proposal form. This will cover the following areas: age-which will be subject to age bands (i.e. between 25 and 70 years) albeit the owner may reserve the right to quote outside such a band; occupation-there are some occupations that may fall outside the normal criteria and therefore may be ineligible for hire; driving experience and history-the owner will be obliged to check the driving license of the hirer and satisfy themselves that the information provided is correct.

Any non-disclosure or misrepresentation could render the contract null and void, which, in theory, may result in the vehicle not being covered for any damage that may result during the period of hire. If the policyholder can demonstrate that they exercised due

diligence to ensure the risk (that is, the hirer) was acceptable, then some insurers may extend the cover. Also, the risk of fraud may be incorporated into the cover, subject to an additional premium. In many instances, vehicles for hire are not treated respectfully by hirers and as a consequence, they tend to accumulate minor bumps and scrapes. In order to reduce liability, such vehicles are normally subjected to pre- and post-hire inspections. The operator will complete a form detailing all the defects which the hirer will confirm. Any additional defects noticed will then be assumed to have occurred during the period of hire and the hirer is then liable (Cummins and Tennyson, 1996).

There are three different ratings for self-drive hire vehicles. The first is charging a flat rate per vehicle. This entails computing an annual premium for each vehicle and in return, an annual certificate is issued. The insurance charge to the hirer will be determined by the frequency with which the vehicle is hired out. Insurers set a rate for self-drive hire business based on the fact that vehicle hire tends to be seasonal with the greatest period of hiring tending to be during holiday periods. Recently, in Kenya, there is an additional element of self-drive hire vehicles being hired out by car thieves and stolen altogether. This added risk has resulted in insurers revising premiums upwards (Schmit and Yeh, 2003).

Day by day rates is the second rating for self-drive vehicles. This entails paying a premium for the particular period of hire. Turnover or hiring charge basis is the third form of rating. The basis here is the number of vehicles operated by the owner, indicative of the volume of hiring expected over the period. Periodic variations on the fleet size entail flexibility in calculations. Buses and coaches have a seating capacity of more than 12 passengers. Rating is based on the number of passengers that the bus or coach can carry along with the location where the vehicle will operate. When developing the rate, there is need to take into account the fact that this type of passenger transport may operate countrywide. Aside from the substantial passenger risk, the value of the vehicle themselves represent a substantial loss or damage potential. As a consequence, a value in excess of a given amount attracts an additional premium.

Small buses are defined as those vehicles with 9 to 16 passenger seats (Kerby and Williams, 2004). Most 14-seater Matatus fall into this category. These too carry an increased passenger liability risk. The risk factor is increased for various reasons. These include the need to maximize on the vehicles use, employing young inexperienced drivers

and sub-standard maintenance to lower costs. The premium rating will take into account the type of cover on offer. This may be comprehensive, third party fire and theft and third party only. Rating will also be determined by the location of operation, the type of use (whether for hire and reward or not) and the seating capacity.

In order to reduce the risk of liability, insurers may use different methods. This may involve partnerships with specialist risk management providers. The insurer, prior to underwriting, may also assess the risk management measures put in place by prospective policy holders (Doerpinghaus, Schmit and Yeh, 2004). For commercial vehicles, these may entail assessing the vehicle condition, driver qualification and length of hours worked among other things. Other possible risk management measures could be the enforcement of rules regarding use of mobile telephones while driving, more effective vehicle maintenance and a clear policy on accident reporting.

Vehicle modifications may also alter the risk rating afforded by the insurer. Local Matatus for example normally feature many enhancements aimed at increasing passenger comfort or to attract certain types of passengers. Such enhancements may include alloy rims, Digital Versatile Discs players and music systems. Whereas these do not affect the vehicles engine performance, they do increase the risk of theft or malicious damage (Schmit and Yeh, 2003). Thus, the premium charged will be higher owing to the vehicle's higher valuation. In certain cases, any mechanical changes aimed at improving engine performance will certainly lead to increased premium ratings owing to the risk of over speeding, albeit that this is not practiced in Kenya. Insurance policies cover for loss or damage to radio or audio equipment up to a given financial level. In some cases, upon payment of additional premiums, insurers may be prepared to increase the maximum level of indemnity.

Insurers also normally have a new and young driver's clause when underwriting motor insurance. Where the insured's vehicle is being driven by a young driver, the excess payable on each and every claim increases (Jonah, 1986). A new or young driver is defined as any person below the age of 25 years or any person 25 years and above, but who holds only a provisional licence, or who has not held for a period of 1 year, a driving licence other than a provisional driving licence. For instance, for young drivers, a comprehensive policy may entail an additional excess at the rate of 7.5% of the insured value of the vehicle or 2,500/=-, whichever is greater. In third party policies a flat figure

will be added over and above that charged for a motor vehicle being driven by drivers above 25 years.

One of the main reasons proposed for younger drivers being at particularly elevated risk of traffic accidents is their propensity to engage in risk-taking behaviours (Jonah, 1986). Such behaviours include driving at excessive speeds; failure to use occupant restraints; and driving under the influence of alcohol. Begg and Langley (1999) used 6 items to assess risky driving behaviours in 21 year olds. The items, and the corresponding levels of indulgence in them were: driving fast for thrills (44.7%); taking risks for fun (19.7%); driving faster than 120 Km/h (50.3%), overtaking on a yellow line (5.9%); speeding up if someone tried to pass you (4.3%); and following very close behind slower drivers (30.1%).

In addition to driver behaviours there has been considerable recent interest in the personality and characteristics of people who are likely to be involved in traffic accidents. They have been characterised as being involved in crime, drug and alcohol use, those who are socially deviant, with antisocial and oppositional behavioural tendencies (Halek and Eisenhauer, 2001). When underwriting PSVs, insurers also want to know the drivers level of experience and driving history, especially that relating to accidents. This information is then used to assess risk and determine the level of premiums and excesses payable. Additionally, illnesses and other medical conditions may be monitored by insurers very closely and in cases where this justifies, they may be incorporated into the premium or excesses paid.

There exist various underwriting and claims related incentives to encourage safer driving and lower claims liability. An example in the United Kingdom is the No Claims Discount (NCD) (Cummins and Tennyson, 1992). This system is not applicable in Kenya today. Through this policyholders were offered premium discounts for every period over which they did not make any claims. The period could be every financial year or other. NCD was a mechanism for adjusting the parameters of insurance contracts according to the past record of policyholders. For example, the premium could be adjusted based on individuals' past record of reported accidents (Brouhns et al., 2003) or on the number of demerit points accumulated (Dionne et al., 2000). By adjusting the information underlying the risk classification criteria, an *a posteriori* scheme can be used to revise the *a priori* rating.



Dionne et al. (2000) argues that the NCD makes it possible to use information disclosed on past experience to improve the insurance rating and thus render risk classes more homogeneous. With this system, it is also possible to maintain incentives encouraging cautious behaviour and to reduce the inefficiencies associated with moral hazard. Introducing the NCD could, in theory, be expected to create more incentives for safe driving, as it links individual premiums to past reported accidents.

Adverse selection is the instance where, owing to lack of full information, the insurer makes wrong choices regarding the insured. The insurer may select an insured that is high risk as adjudged by their accident history. This then results in a higher risk exposure. The NCD enables the insurer overcome this hazard through playing two roles which involve different rating structures. The first role deals with the problem of adverse selection where nothing counts but the frequency of reported accidents observed over time, since the objective is to evaluate as faithfully as possible the true distribution of reported accidents related to unchanging characteristics. High frequencies of reported accidents will lead to a higher risk rating and no NCD incentives; the converse is also true.

The second role is linked to moral hazard and implies that the distribution of reported accidents over time must be taken into account in order to maintain the incentives for cautious behaviour at an optimal level. This means that more weight must be given to recent information of erroneous driving in order to maintain such incentives. Use of a NCD is also justified by the need for equity in insurance pricing, meaning that policyholders should pay premiums corresponding to their level of risk (Dionne and Vanasse, 1989).

In the literature, several aspects of the NCD have been criticized by insurers and insurance stakeholders dealing with analyzing and advising the World Bank on global insurance trends (Vitas, 1995). Insurance experts have taken particular exception to the low premiums charged taking into account that the NCD has not achieved much in reducing the number of claims. Despite the low premiums and stringent transport regulatory framework insurance companies are thereby deprived of any power to initiate private measures promoting safe driving. And, since rates are fixed, insurers are prevented from using the rate technique (i.e., setting the basic premium on driving records). But, as suggested NCD is supposed to reduce claim volumes and thereby reduce excessive long waits for claim settlements. For their part, practising insurers complain

that the NCD applies to only one category of vehicles (vehicles for private use), representing only a fraction of those on the road Brouhns et al. (2003).

## **2.4 Moral Hazard and Adverse Selection Challenges in Automobile Insurance**

Moral hazard is the prospect that a party insulated from risk may behave differently from the way it would behave if it were fully exposed to the risk. Moral hazard arises because an individual or institution does not bear the full consequences of its actions, and therefore has a tendency to act less carefully than it otherwise would, leaving another party to bear some responsibility for the consequences of those actions. For example, an individual with insurance against automobile theft may be less vigilant about locking his or her car, because the negative consequences of automobile theft are (partially) borne by the insurance company (Baker, 1996).

Dembe and Boden (2000) observe that moral hazard is related to information asymmetry, a situation in which one party in a transaction has more information than another. The party that is insulated from risk generally has more information about its actions and intentions than the party paying for the negative consequences of the risk. More broadly, moral hazard occurs when the party with more information about its actions or intentions has a tendency or incentive to behave inappropriately from the perspective of the party with less information. A special case of moral hazard is called a principal-agent problem, where one party, called an agent, acts on behalf of another party, called the principal. The agent usually has more information about his or her actions or intentions than the principal does, because the principal usually cannot perfectly monitor the agent. The agent may have an incentive to act inappropriately (from the view of the principal) if the interests of the agent and the principal are not aligned.

In insurance markets, moral hazard occurs when the behaviour of the insured party changes in a way that raises costs for the insurer, since the insured party no longer bears the full costs of that behaviour. Two types of behaviour can change. One type is the risky behaviour itself, resulting in what is called *ex ante* moral hazard (Kimball, 2000). In this case, insured parties behave in a more risky manner, resulting in more negative consequences that the insurer must pay for. For example, after purchasing automobile insurance, some may tend to be less careful about locking the automobile or choose to

drive more, thereby increasing the risk of theft or an accident for the insurer. After purchasing fire insurance, some may tend to be less careful about preventing fires (say, by smoking in bed or neglecting to replace the batteries in fire alarms).

A second type of behaviour that may change is the reaction to the negative consequences of risk, once they have occurred and once insurance is provided to cover their costs. This may be called *ex post* moral hazard (Shavell, 1979). In this case, insured parties do not behave in a more risky manner that results in more negative consequences, but they do ask an insurer to pay for more of the negative consequences from risk as insurance coverage increases. For example, without medical insurance, some may forego medical treatment due to its costs and simply deal with sub-standard health. But after medical insurance becomes available, some may ask an insurance provider to pay for the cost of medical treatment that would not have occurred otherwise.

The insurance industry can also face problems of signalling and screening. People who buy insurance often have a better idea of the risks they face than do the sellers of insurance. People who know that they face large risks are more likely to buy insurance than people who face small risks. Insurance companies try to minimize the problem that only the people with big risks will buy their product, which is the problem of adverse selection (Baker, 1996), by trying to measure risk and to adjust prices they charge for this risk. Thus, life insurance companies require medical examinations and will refuse policies to people who have terminal illnesses, and automobile insurance companies charge extra to people with a conviction for drunk driving.

Asymmetric information has been one of the major topics in insurance research since Rothschild and Stiglitz (1976) and Shavell (1979) pioneered the development of the theoretical framework of moral hazard and adverse selection for insurance. Their work inspired a number of other researchers in the area of insurance theory over the past two decades. The theoretical literature has identified many insightful concepts (such as incomplete coverage, commitment, renegotiation and self-selection mechanisms) for understanding asymmetric information in the insurance market and which can be used to avoid the moral hazard and adverse selection consequences.

On the other hand, adverse selection and moral hazard problems are also well recognized by insurers in real practice. In addition, insurance companies have developed many

provisions, such as deductibles (commonly known as excess), co-payment, co-insurance and experience ratings, to reduce possible losses caused by adverse selection and moral hazard. For example, they may design different types of insurance coverage and deductible amounts with different costs to sort out the varying risk levels of the insured. Insurers have also used experience ratings in automobile insurance and workers compensation to control potential problems of asymmetric information (Dionne and Doherty, 1994).

Wang (2004) identifies three possible major types of automobile insurance, namely, compulsory liability, supplementary liability and comprehensive coverage for damage. These three are designed to lower the insurer's exposure through offering different rating and compensation mechanisms. For instance, compulsory automobile liability insurance covers only liability for bodily injuries, including death and medical expenditures. There is no coverage for uninsured motorists. In some cases, the insurance policies may entail that hit-and-run victims be compensated through a special fund. In other words, any person injured by an uninsured or hit-and-run driver is compensated through a special fund financed through a tax on the premium paid for compulsory liability insurance. Since liability for bodily injuries is covered as a strict liability under the compulsory liability insurance, there is no first-party no-fault coverage in the market, i.e. contracts under which insured are indemnified for losses by their own insurance company, regardless of fault in the incident generating losses.

On the other hand, supplementary liability insurance provides liability coverage for both property damage and bodily injury. The levels of liability for property damage and bodily injuries above the limit for compulsory automobile liability insurance are on an at-fault basis. Comprehensive cover provides coverage for property damage for a driver's automobile. Automobile drivers can choose from three types of generic comprehensive coverage. These are indicated as Types A, B, or C and are the generic precursors from which the coverage types being used in practice are developed. In Kenya, for instance, there is comprehensive coverage whose rating and structure will reflect variants of these generic types espoused by Wang' (2004). For the mass market, most of the comprehensive covers in place tend to reflect Type B and Type C structure, owing to their high risk nature.

Type A covers all kinds of collision and non-collision losses, which may be caused by missiles or falling objects, fire, explosion, windstorm, intentional body damage, malicious mischief and any unidentified reasons other than the exclusions in the policy (Mookerjee and Png, 1989). Type B covers selected risks. These include collision and non-collision losses. However, the non-collision losses caused by intentional body damage, malicious mischief and the unidentified reasons covered under Type A are specifically excluded from Type B; and Type C covers only damage in a collision involving two or more vehicles. Given the moral hazard problems posed by exclusive focus on Type A coverage, Type B coverage is designed to reduce the insurers risk exposure; therefore, it excludes some losses where it is hard to verify the cause or source. Finally, Type C coverage can be used to counter any continuous escalation in the loss ratio for both Type A and Type B (Wang, 2004).

Puelz, Robert and Snow (1994) note that two types of asymmetric information, the insured's moral hazard and the supplier's moral hazard, are both observed in the market for comprehensive insurance coverage, especially for Type A. Since Type A covers all risks, the insured has a strong incentive to file as many claims as possible, whether or not his/her car actually sustained damage. In this case, the insured usually asks the repair shop or garage to provide more services than necessary in order to claim greater compensation.

The arguments may not be restricted only to non-deductible policies. The possibility for this kind of insured's moral hazard is greater for the Type A policy than the Type B policy because the Type A policy covers damages from unidentified reasons. Thus, the insured can use this rationale to file more claims as long as the compensation is higher than the deductible amount or excess (Wang, 2004). For example, the insured may ask to have the entire car re-polished for only a small scratch. On the other hand, the repair shop (i.e., the supplier) also has an incentive to augment the work to increase its revenue and profit.

Ironically, insurance companies usually have to tolerate this type of corruption between the insured and the supplier simply to avoid losing business, since repair shops owned by car dealerships are themselves major distribution channels for automobile insurance. In addition, car dealers have the incentive to promote more expensive coverage since they are rewarded by a commission that is a fixed percentage of the insurance premium. Thus,

both the loss frequency and loss ratio under the comprehensive coverage have been extremely high and continue to increase, as does the insurance premium.

The difficulty inherent in diagnosing the severity of the types of injuries typically suffered in automobile accidents, soft-tissue injuries or “sprains and strains”, makes automobile insurance fraud relatively inexpensive to perpetrate and costly to deter. This aspect of fraud is a moral hazard to the extent that it is difficult to objectively ascertain whether or not the injury actually exists and the extent of its seriousness. The ‘victim’ could be feigning injury. By one estimate, 36% of all bodily injury claims are thought to be fraudulent or exaggerated, inflating the cost of auto insurance by between 17% and 20%, or \$5.2–\$6.3 billion in 1996 (Insurance Research Council, 1996).

Insurers have two basic strategies at their disposal for addressing fraud. One strategy is to detect fraud by conducting detailed audits of suspicious claims and challenge those for which they find sufficient evidence of fraud. The expected value of this strategy, however, may be low since audits are expensive to conduct, many injuries are inherently difficult to objectively diagnose, and the cost of challenging a claim in court is high (David and Loughran, 2005).

A second strategy available to insurers is to deter fraud by designing an indemnity schedule that diminishes the incentive to commit fraud. In the case of first-party insurance, it has been shown that an optimal insurance contract in the presence of asymmetric information and costly state falsification, entails an indemnification schedule that is less responsive to damages claimed than would be the case were fraud not possible (Crocker and Morgan, 1998). That is, in a setting in which, at a cost, claimants can fraudulently inflate the value of their claim, and insurers have no ability to observe the true value of the claim, insurers may under-indemnify large claims in order to create a disincentive to engage in fraud.

Crocker and Tennyson (2002) further demonstrate that third-party insurers also have an incentive to “flatten” the indemnification schedule. While third-party insurers cannot offer an insurance contract that explicitly offers less than full reimbursement for documented medical costs, lost wages and other specific economic damages, they may, during negotiations, successfully challenge special damage claims that they suspect are exaggerated or otherwise fraudulent.

In support of this, Crocker and Tennyson (2002) find that special damages paid are less responsive to special damages claimed when the injury could be easily falsified. As just noted, though, challenging special damage claims can be costly for insurers. Therefore, it may be argued that general damages, which are inherently difficult to monetize and, consequently, highly negotiable, provide insurers an alternative means of flattening the total indemnification schedule when systematically under-indemnifying special damages in a third-party setting is infeasible.

## **2.5 Commercial Motor Vehicle Insurance Claims Process**

The claims process can be viewed as a set of activities starting with claim reporting, receipting, claim examination, filing, operational detection, fraud prevention measures, claim assessment and processing, expeditious claim settlement, complaints and dispute settlement and claim declinamator (or declining a claim). Insurers need to be notified about a possible claim early so that they can mitigate the consequences. The claim processing system can be enhanced by technology.

The goal is not to replace adjusters and investigative personnel but to support their function by sharpening the information delivery system using more appropriate data (expanded claim features) and better technology to manipulate and deliver the data. When the first notice of a claim arrives, a triage (pre-data mining) should sort arising claims into those that can be paid immediately, or express claims and those that need to be further evaluated, or target claims (Weisberg and Derrig, 1995). The remaining claims (tagged “dud” claims) are those that never materialize into payments.

The reasons for claim sorting are twofold. First, it is easy to do. Second, the presence of a large amount of the express and dud claims, which need no additional information to resolve the claim, will necessarily skew data mining fitting parameters as they “stretch” to accommodate the simple claims. The establishment of minimum criteria for investigation also comports with costly state verification theory (Bond and Crocker, 1997). It is better to reserve the more sophisticated techniques for the more difficult sorting problems.

Artís, Ayuso and Guillén (1999) also note that at the point of accident, the date must fall within the policy period. Weather conditions are documented to try and point out the cause of accident. A sketch plan of the accident may be required to assess liability. Safe

driving practice may need to be evidenced e.g. proper signalling etc. Details of other parties involved in the accident will be provided to assist in the subsequent investigation and enable the insurer to provision effectively for any potential losses. Details of any passenger injuries and independent witnesses present should be availed.

The policyholder is also required to co-operate with the insurer in handling documentation and assisting in any civil proceedings. The policyholder or their agent is not required by policy to admit liability unless it is a case in which the policyholder is admittedly liable e.g. hitting a pedestrian. Any dispute over the amount of the claim (or quantum) may be referred to an arbitrator. To attain the benefits of early notification insurers insist on notification via telephone as the main channel. Once all relevant details are collated, the insurer will encourage the policyholder to use their approved or recommended repairers which enables them to control costs and avoid fraudulent repairs.

Other than verify the policy and policyholders details, the accident report form may request information about the driver. For commercial purposes, where the driver is not the policy holder, the intention may be to establish if the driver is permitted by the policyholder to drive (Clarke, 1990). Lack of permission may indicate no cover or may lead to enquiries relating to theft or unlawful taking. It may also point out instances of misstatement e.g. a young 'Matatu' owner trying to get cheaper insurance through a parent. It is also vital to update information on any non-disclosures e.g. accident history.

Information about the vehicle serves to verify that this is the actual vehicle under cover. If not then it is possible that the private car policy holder is driving someone else's vehicle in which case they may be relying on the driving other cars extension, under which arrangement, cover is TPO. The usage of the vehicle at the time of the accident is important to ensure conformity with the policy cover. In the event of an accident, the vehicles condition, damage suffered, whether driveable and where it can be inspected needs to be provided. Damage description needs to be consistent with the accident context. If the vehicle is out of action it needs to be transported to a suitable repairer for inspection, quotation and repair authority.

Regarding the handling of fraud and abusive claims, data mining enhancements to the processing system are primarily valuable in delivering sorting information at the routine adjusting stage. The information can range from simple routine information (prior claims)



to complicated claim type profiles (Major and Riedinger, 1992). Once the information is in hand and the claims are sorted, those needing investigation (spend money) are identified. Ideally, investigation results in claims being paid, built-up claims being negotiated (down), and suspected fraud claims referred for specialized investigation. Civil and/or criminal proceedings result when the situation warrants, if the appropriate institutional systems (such as fraud bureaus) are effective.

As a consequence of the implied risk above, the claims department of an insurance firm plays various roles. These include provision of a fast and efficient claims service; indemnifying the policyholder in accordance with cover purchased; ensuring that only valid claims are paid (Artís, Ayuso and Guillén, 1999); dealing with third party claims while protecting policyholder's interest; and protecting the fund of premiums paid against overpayments, fraud and expenses incurred due to inefficient claims handling processes.

Many definitions of claim fraud are in common use. Derrig and Krauss (1994) propose that fraud be reserved for criminal acts, provable beyond reasonable doubt, that violate statutes making the wilful act of obtaining money or value from an insurer under false pretences or material misrepresentations a crime. Fraud has been classified into criminal or hard fraud, suspected criminal fraud, soft fraud or systematic abuse and suspected soft fraud or systematic abuse. When discussing fraud issues, one must often remember that insurance contracts between the company and the insured are agreements to pay for accidental damages when they occur.

Derrig (2002) observes that the business of insurance is to pay claims in a timely and efficient manner. Companies are well aware that claimants and providers may have opportunities and incentives to take advantage of accidents, even fabricate or cause them to happen, to obtain payments they might otherwise not deserve. The claim adjusting process is in theory a narrowing of the information asymmetry (the claimant knows exactly what happened; the company knows some of what happened) to the point that an appropriate payment is made or the claim is denied. Adjusters routinely investigate claims and negotiate settlements.

Companies have the discretion to spend as little as possible (overhead and routine reports only) on a claim or invest in acquiring information (independent medical examinations, accident reconstruction, depositions) to resolve the asymmetry partially (negotiation) or

fully (jury trial). It is however difficult to sort incoming claims efficiently into categories that require the acquisition of additional information at a cost, a process known as costly state verification (Bond and Crocker, 1997).

Brockett, Xia, and Derrig (1998) observe that in the claims repayment process, the principle of indemnity (that is, compensating the policyholder back to their pre-accident position) brings about several issues. Firstly, there is the issue of contribution. One way in which this arises is where two or more covers contribute to the same potential liability. The combined effects of having such clauses in any two policies will invariably lead to any loss being shared out equally.

Subrogation, another consequence of indemnity, gives the insurer the right to act in place of the policyholder in pursuing recovery from a negligent party (Clarke, 1990). Motor policies do have such a clause that confers this right upon the insurer. A motor insurance policyholder is also required take all reasonable steps to protect the vehicle from loss or damage and to keep it in a roadworthy condition. However, the law may require an insurer to evidence high levels of ‘reckless disregard’ for the safety of a property before invoking this clause to reject a claim. There should also be a proven connection between a breach and the actual loss or damage suffered.

Butler, Durbin and Helvacian (1996) observe that any claim tainted with fraud is treated as void under common law. As such, it is treated as non-existent and no party has rights or remedies under it. Under these circumstances, the insurer can recall any claims paid and the policyholder will not be reimbursed any premiums they may have paid. In claims handling, it is imperative for earliest notification of any liability that may result in a claim. This enables the insurer to immediately take action that may reduce the claims. Also, in civil proceedings, the defendant’s insurers may be required to give a substantive view on liability in a short time frame.

## **2.6 The Commuter Transport Sector in Kenya**

### **2.6.1 Situation before Introduction of Legal Notice Number 161**

Unlike the formal employment sector where the employees largely work for a regulated number of hours, this was not the case for the majority of the PSV drivers, especially the

‘Matatu’s’. Only 39% of the drivers worked for 8 hours and below. The other 61% worked for a period of 10 hours and above on any given day (Khayesi, 1999). Insurers would regard such a work environment as being high risk owing to the increased risk of accidents caused by fatigue. They thus required a declaration in the motor vehicle proposal form on the driver’s fitness of mind, accuracy of vision and general wellbeing and health. This observation is consistent with information inferred from the Standard Assurance proposal form.

Despite the high profits generated by the drivers for PSV owners, on the average most of the drivers were underpaid. For instance only a mere 2% of the drivers earned above KSh. 10,000. For the drivers to supplement their low incomes they engaged in other income-generating activities such as farming, sale of milk, sale of vegetables, sale of second hand clothes, kiosk operation and retail shops. This in effect, implies that it was difficult to keep one driver employee as they would keep rotating in order to manage their various interests (Khayesi, 1999).

In particular, ‘Matatu’ drivers would delegate to temporary (squad) drivers who, in essence, were more of learners, inexperienced and prone to cause accidents. Most of these were also young drivers. As seen before, these are categorized by insurers as high risk and their effect on underwriting was that the excess paid on PSV claims was correspondingly higher. This is so as the insurer needed to indemnify themselves against large claims (Asingo, 2004).

By 1994, the insurance industry was overburdened with the high number of accident related claims that were being made. In fact, very few insurance companies were willing to provide insurance covers for PSVs owing to adverse selection problems. In 1994, a major insurer, Access Insurance Company had to be liquidated by the government since it could not cope with the accident related claims (Kimani, et al., 2004).

Insurers that did insure the PSV sector placed stringent requirements like insisting on limiting the routes on which the PSVs could operate in. The rationale for route restriction is that the insurer selects those routes with good roads and lower levels of industry anarchy, such as the affluent areas. The refusal to cover some PSV categories (e.g. Matatus) was informed by a bid to contain soaring exposures. PSVs travelling to Western Kenya, Nyanza and Coast provinces were also among those finding the going tough in

securing insurance services since the exposure on these routes was just too high (Mbogo, 2008).

To further lower moral hazard problems, local insurers insisted on PSVs using insurer approved garages for any repairs, maintenance or inspection, and they limited these to those vehicles under comprehensive insurance. As Wang (2004) indicates, this group exposes insurers to the highest risk as they are covered for most (or all) types of risks. Most PSVs owners tend to prefer third party cover owing to the lesser premiums demanded. For the insurer, this also reduces problems arising from moral hazard and adverse selection. However, it also virtually means that maintenance is always done in garages not approved by insurers. It is then difficult to ensure quality of maintenance, resulting in unroadworthy PSVs. Again, this results in many accidents or potentially risky situations, with ensuing increases in third party insurance claims and compensation.

Providing cover for PSVs had destroyed the whole essence of insurance, where individuals contribute money to a common pool to assist in case of a problem, since the claims exceeded the money contributed in the pool (Kimani et al., 2004). This made a number of insurance companies in Kenya unwilling to provide cover for PSVs. Vehicle owners also lost faith in insurance companies, and if it were not mandatory to insure vehicles, many would have preferred to function without.

Whenever road accidents occurred, the general public always blamed the 'Matatu' drivers. But according to the 'Matatu' drivers, factors responsible for road traffic accidents in the country were: driving unroadworthy vehicles, poor conditions of the roads, harassment from passengers and employers, obstruction, pedestrian/bicycle riders and animal crossings. The drivers complained that employers put pressure on them by setting high revenue targets, long hours of work and many return journeys at late hours. The passengers interfered with the drivers' work by insisting on reaching their destinations fast, therefore, urging drivers to move at a very high speed, demanding to alight abruptly, picking quarrels with drivers or the conductors and engaging drivers in lively talks. The drivers also cited cases of drunk and/or ignorant passengers jumping or alighting from moving vehicles (Khayesi, 1999)

As a way of solving the traffic road accidents, the drivers had suggested the following practical and urgent steps to be taken: less working hours and a union or umbrella body

for all PSV drivers to bargain for their terms of employment. They considered themselves forgotten by the Government, passengers and even their own employers. The need to improve Kenyan roads, the establishment of a police unit whose work should be to remove obstructing vehicles, the need for public education for all road users, removal of the many police checks that served very little purpose besides collecting money from drivers and re-training of 'Matatu' drivers (Khayesi, 1999).

The vehicle owners identified five factors responsible for road traffic accidents, careless driving, poorly maintained roads, drunken driving, police harassment and poor maintenance of vehicles (Kimani, et al., 2004). The vehicle owners had practical steps to address the problem of road traffic accidents in the country. These included, retaining of drivers not only in driving skills but courses in public relations and road safety, confiscating of driving licences belonging to drivers who caused road accidents, improving the state of the roads, provision of public education for all road users and giving awards on a yearly basis to drivers who did not cause road accidents.

On the regulatory side, the Government's efforts to control road traffic accidents were neither emphatic nor systematic. In 1987, the government wanted speed controllers to be fitted into all public service vehicles. The PSV operators lobbied and the plan was shelved. The government also came up with a requirement that all vehicles must be fitted with safety belts in 1988. This did not also materialise because motorists felt that it was very expensive. In March 1996, the government recommended that all public service vehicles be fitted with speed recording devices (SRD) which was also rejected.

All these happenings only augmented the risk to insurers venturing into this industry and thus, most of them opted to shy away. Those that did underwrite charged high premiums and excesses on claims to deter fraud and small value claims. They would frequently conduct motor vehicle audits to assess roadworthiness in order to establish and limit their exposure. PSV operators who had a large pool of licensed drivers would be viewed as having a lower exposure than those who did not. This is so since such drivers were less likely to be overworked and consequently, suffered less from fatigue.

### **2.6.2 Gazettement of Legal Notice Number 161**

The year 2003 witnessed a new Government committed to the rule of law in place. Thus, Legal Notice Number 161 was promulgated and implemented. The fitting of speed governors on all PSVs and commercial vehicles whose tare weight exceeded 3,048 Kgs in order to limit speed to 80 kph was expected to reduce, first and foremost, the high numbers of accidents caused by over speeding. This was to be complemented by the fitting of safety belts (Asingo, 2004).

Subsequently, this was also expected to reduce drastically the high rate of passenger related deaths and expensive destruction of property. To the insurer, this would reduce the liability occasioned by the same. In particular, claims arising from human related casualties would reduce as well as liabilities borne out of accident related repairs and write-offs. Consequently, the cost to the insurance industry was expected to decrease.

Bonyo (2008) also observes that the provision of Legal Notice Number 161 that required drivers and conductors to be employed on a permanent basis and for every driver to prominently display on the front windscreen, his or her photograph of postcard size, showing the head and shoulders taken full without a hat, were in combination expected to reduce crime rate in the sector. Permanent employment was expected to reduce the insurers' moral hazard by eliminating the possibility of unqualified, younger and riskier personnel taking charge of the vehicle.

It would be easier for the insurer to access the drivers past history and in particular, accident history especially aided by the requirement to obtain certificates of good conduct from the police. Based on this, the insurer could even recommend to the 'Matatu' owners on the best calibre of personnel to hire. This provision was largely expected to aid in eliminating squad (temporary) drivers from the scene. Driver competence was to be appraised through retesting after every 2 years. Such records, if obtained from qualified assessors, would ensure that ratings reflected the risk exposure arising from this aspect of insurance underwriting, such as drivers age and accident history.

Again, there was an expectation that there would be a restoration of sanity and order in the industry. The requirement that vehicles be clearly marked, and that their destination and passenger carrying capacity indicated, was expected help implement order and sanity

in the sector. The requirement that all vehicles pass an annual inspection would help remove most of the defective vehicles from the roads. Indeed, many unroadworthy vehicles that did not comply were removed from the roads. The government further directed all local authorities to take over the management of public bus stops within their areas to help remove cartels from the routes. Consequently, cartel activity was minimized and PSV owners largely took control of the running of their vehicles. Overall, all this was expected to reduce the cost of doing business in the sector (Chitere et al., 2005).

Due to the decreased risk levels, insurers would naturally lower the insurance premiums in the PSV sector. Additionally, PSV operators would be able to access comprehensive insurance cover, considered too expensive for the sector to adopt. Access to comprehensive insurance was expected to enable PSV owners to indemnify themselves against property losses since this type of cover insured both the passengers and the vehicles. Restrictions on the number of passengers carried by each PSV would further reduce the insured's and insurer's costs.

Since the total premium payable increases with the vehicles passenger carrying capacity, by rationalizing the number of passengers each type of vehicle could carry, Legal Notice Number 161 was additionally expected to reduce the large numbers of extra passengers not covered by the insurance policy (Asingo, 2004). Use of seat belts would also reduce minor injuries that are also easy to falsify and exaggerate. From the insurer's perspective, the moral hazard problems that go with such injuries would be greatly reduced.

Owing to the conducive work environment that would be created, it was expected that new investors would flock the sector. These would be drawn from both the wider public and the formal business sector. The expectation was that, with the greatly reduced risk of doing business, more insurance firms would venture into underwriting of the PSV sector. Implementation of Legal Notice Number 161 was expected to also have an impact on motor insurance in other segments such as private and public hire vehicle categories.

In support of this, Non-Governmental Organizations (NGOs) and private sector players such as insurance firms also showed interest in the sector through sponsoring seminars and workshops on safe driving for owners and workers. The Transport Licensing Board (TLB) had by August, 2004 suspended licenses of 42 vehicles that had flouted the safety regulations (Gachuki, 2004). It had also ordered vehicles belonging to the government,

tour firms, schools and colleges to be fitted with the speed governors. The number of PSV underwriters also increased, from two in 2003 to six in 2008 as a result of the implementation of Legal Notice Number 161.

After the implementation of Legal Notice Number 161, the Government proposed the formation of a PSV motor insurance pool with the intention of encouraging more insurers to enter the PSV underwriting business. A motor insurance pool is generally operated in two ways. In the first alternative, underwriters can be required to pay a certain percentage of the premium into a central pool. The kitty is then used to pay out compensation on behalf of underwriters who may be in financial distress. In the other option, underwriters pay PSV premiums into a pool and take a specified commission. All claims are then paid for from the pool with the contributors sharing the surplus, if any, which can be reinvested (Onditi, 1995).

Kenya has previously made two attempts to have a motor pool: in the 1980s through the Kenya Motor Insurance Pool. Both of them collapsed because of mismanagement. The previous pools were meant to spread losses from the public service vehicle (PSV) line estimated at 75%, but fell through because of alleged irregularities in distributing the losses among participating firms (Republic of Kenya, 1995). The Insurance Regulatory Authority (IRA) had suggested a motor insurance pool as a way forward to help 'Matatu' insurers reduce exposure to regular and fraudulent claims. Instead of the pool, the public service vehicle underwriters want the Government to enforce traffic rules more stringently like in 2004 when road accidents dropped by over 50% and reduced incidences of insurance claims.

The insurers felt that a PSV motor insurance pool would encourage complacency and lack of innovation. It would increase the incidents of ambulance chasers, who will see a big opportunity in the pooled funds, one of the biggest problems the industry faces. The insurers have proposed the concept of structured compensation, whereby a specific injury is compensated for with a specific amount of money to eliminate the risk of ambulance chasers and fraudulent claims. Also, the industry should also come up with laws that discourage price undercutting which also contributes to the general fraud and mismanagement in the PSV underwriting sector (Mbogo, 2008).



Perhaps, Kenya could borrow this concept from the Indian experience that is working. In 2007, The India Motor Insurance Pool (IMIP) was formed by 12 public and private sector non-life insurers. The India Motor Insurance Pool (IMIP) was formed to take over third party motor risks where the loss ratio was 70% (Mbogo, 2008). The share of each insurer in the pool is based on gross direct insurance premium collected. Insurers underwriting on behalf of the pool are entitled to an administrative commission of 10% of the premium. General Insurance Corporation of India provides reinsurance support of up to 15%.

## **2.7 General Challenges in Insuring Public Service Vehicles**

In spite of these achievements, The Ministry of Transport and Communications (MoTC) Report (2004) lists the limitations of implementation of the Legal Notice as below. Tampering with speed governors by some dishonest operators has been done and may still be in practice. This is meant to enable them drive the vehicles beyond the authorized speed of 80 km/h. Seat belts fitted by some PSVs are substandard and do not guarantee safety in the event of accidents. In some vehicles, they are not cared for and some commuters decline wearing them owing to their being dirty. Often the crew does not emphasize their importance until they are about to encounter the police. Since all aspects form the basis of insurance ratings in underwriting, it follows that non-compliance will increase the insurers liability with a consequent increase in 'Matatu' premiums.

Other limitations include the hiking of fares which has been done by all operators and has compelled commuters to appeal to the government to control them although this has not been possible owing to the liberalized market economy. The fares were, however, higher in the first few months of enforcement of the legal notice but have since then stabilized at the slightly higher levels on many routes owing to reduced seating capacity. Inadequate public transport has been a problem owing to elimination of unroadworthy vehicles and standing passengers in buses and mini-buses. It is estimated that demand would be met by an additional 10,000 vehicles although there is an emerging trend of increasing investment in higher occupancy vehicles with 25 or more seats (Asingo, 2004). Increased vehicle capacity increases the insurance rating, raising insurance premiums correspondingly.

Laxity in law enforcement is also a problem. Many police officers are still reluctant to enforce the laws. Whereas the government has been fighting corruption, many police

officers are still extorting bribes from PSVs. Again, re-mergence of cartels has been reported on some routes. Corruption has also been reported by the media among key government officials in relation to issuance of PSV licenses and inspection certificates. Since positive police action is vital in assessing whether or not to pay a fine, insurers tend to be suspicious when assessing a claim in view of the reputation of the Kenya Police. It is not unusual for the police to conspire together with 'Matatu' owners to defraud the insurer (Gachuki, 2004).

The issue of valid driving licenses is another area of concern to the insurer. In accident situations, for a claim to be dispensed, the vehicle must be driven by a driver possessing a valid driving license. Fake driving licenses are very easy to obtain in Kenya. These poor quality driving licenses that do not meet the required security test and that can easily be produced by local dealers have been uncovered by the Kenya Revenue Authority. This implies that in some cases, the employed drivers may not have undergone rigorous driving testing as required by the Legal Notice Number 161 and may therefore not possess competent driving skills (Chitere et al, 2005).

Ochieng (2008) observes that further flouting of Legal Notice Number 161 is evident in overloading that has been reported in towns outside the capital where some 14-seater Matatus still carry 18 instead of the required 14 passengers. If an accident occurred, the insurer may decline a claim if it can be proven that the vehicle carried excess passengers. In routes where this is rampant, insurers can actually decline to underwrite PSVs along such routes.

Non-compliance is also manifest by some drivers and conductors to who fail to wear their badges or to display their photos. Additionally, during the 2007 presidential elections, there were extra-legal pronouncements by the incumbent presidential candidate overruling the requirements of legal notice number 161. This exhorted the 'Matatu' crews to cease wearing uniforms as a way of attracting votes in his favour. Such pronouncements tended to expose insurers to political risk that would eventually impact on their businesses.

Over speeding, careless overtaking, overloading and paying of bribes to the police are still commonly practiced by 'Matatu' crews. There are also a number of vehicles that have been certified but which are not in good mechanical conditions. For example, in a

recent week-long traffic police inspection on the Nairobi-Mombasa road, 480 PSV vehicles including buses owned by leading transport companies were found violating various rules. The offences committed were speeding, lack of first aid kits, faulty speed governors and flouting set timetables and 200 drivers and conductors were booked and forced to pay cash bail on the spot. In another police inspection in Embu and Kisii areas, speed governors of 300 PSV vehicles were found to have been tampered with. As a consequence, risk to the insurer becomes unquantifiable and may exceed what the insurer underwrites, presenting a moral hazard issue (Bonyo, 2008).

### **3.0 RESEARCH METHODOLOGY**

#### **3.1 Research Design**

The study used an exploratory survey design, a design that Kotler and Armstrong (2001) observe is best suited for gathering descriptive information; where the researcher wants to know about people's attitudes or preferences concerning one or more variables through direct query. Since this study was aimed at obtaining the insurers experience regarding the before and after effects of Legal Notice Number 161, it was felt that a survey would best elucidate their views. This was because the different insurers would have different perspectives on the subject.

#### **3.2 Population and Sample**

The population of study was confined only to those insurance firms which insured PSV. These were 6 insurance firms, namely, African Merchant Company (AMACO) Insurance Company Limited, Gateway Insurance Company Limited, Directline Assurance Limited, Blue Shield Insurance Company Limited, Lion of Kenya Insurance Company Limited and Standard Assurance Company Limited respectively (now under receivership). Since the population was small, a census was done.

#### **3.3 Data Collection Method**

Data was collected by means of a questionnaire that employed five point Likert type scales. These were administered to the respondents using a mail survey. There were two separate questionnaires. One collected underwriting related information from the insurer while the other collected claims related information. These questionnaires were delivered to the respondents by hand and collected later after they had been filled. It was necessary in order to obtain information as to when the questionnaires were fully completed and ready for collection. There were two respondents in each firm, drawn from the underwriting and claims departments respectively. Respondents were senior managers in charge of PSV underwriting and claims processing. These were the people in a position to give the required information.

### **3.4 Data Analysis Method**

Descriptive statistics consisting of the arithmetic mean, standard deviation, frequencies and percentages were used to present the findings. According to Mugenda and Mugenda (1999) descriptive statistics enable meaningful description of a distribution of scores or measurements using a few indices. Analysis was executed using Statistical Package for the Social Sciences (SPSS) software (version 11.5). Mean values gave the expected score from a group of scores in a study. Standard deviations informed the analyst about the distribution of scores around the mean of the distribution. Frequency distribution showed a record of the number of times a score or record appeared.

## **CHAPTER FOUR**

### **FINDINGS AND DISCUSSIONS**

#### **4.1 Introduction**

This chapter discusses the findings of the research in relation to determining how the provisions of Legal Notice Number 161 have affected the underwriting and claims process of PSV insurers in Kenya and the challenges faced in the underwriting and claims process by PSV insurers. In order to attain these objectives, an exploratory survey study was conducted.

The research instrument used was a questionnaire administered by the researcher. The questionnaires were mostly well completed albeit some had blanks left. There were 6 claims managers and 5 underwriting managers who responded. The response rate for underwriting managers was 100 while that for claims managers was 83.3%. The overall response rate was 91.7%. This was considered satisfactory in line with Mugenda and Mugenda's (1999) observation that a response rate of 50% or more is sufficient for purposes of statistical analysis. Two claims managers did not respond.

#### **4.2 Effect of Legal Notice Number 161 on Public Service Vehicle Insurers**

This section discusses the findings in relation to the two objectives of the research. To assess these objectives, the study employed five point Likert type scales with the rankings '1 = not important to 5 = most important' and "1 = no extent at all to 5 = greatest extent" to rank the various rating and claims variables according to their level of importance or the various challenges according to the extent to which they affected the underwriting or claim assessment processes respectively. N refers to the number of respondents that answered each particular questionnaire item.

For each response category, the mean values and standard deviations were computed using Statistical Package for the Social Sciences (SPSS) software (version 11.5). Mean values are an indicator of the level of importance of a given rating or claim payment factor or an assessment of the extent to which a given challenge affected the underwriting

or claims assessment process. High mean values for a given aspect indicate that that aspect of underwriting or claims process was of high importance or was a big challenge while the converse is also true.

The observed mean values were rounded off to 2 decimal places and assigned a meaning derived from the nearest corresponding point on the Likert scale, e.g. 1 = no extent, 2 = small extent and so on. The standard deviation values are an indicator of the extent to which respondents were in agreement over the level of importance of the different rating or claims payment factors or the in agreement about the extent to which the challenges enumerated affected the insurers.

For clarity of analysis, only those findings that were significant were analyzed. These are those findings that lay at the outer fringes of the findings e.g. the highest and the lowest values for the means in each response category. Since a mean of 3.00 is the median ranking, mean values above 3.00 were considered to be in the former category while those less than 3.00 were considered in the latter category. For purposes of this study, standard deviations greater than 1.00 indicated a high dispersion about the mean while those below 1.00 indicated a relatively high clustering about the mean. The former implies that the respondents differed widely in their opinions on how they rated the given variables on the Likert-type rating scale while the latter implies that they gave largely similar ratings.

#### **4.2.1 To determine how the Provisions of Legal Notice Number 161 have affected the Underwriting Process**

From Table 1, before implementation of Legal Notice Number 161, the most important factors in ascending order of importance were drivers age, risk of fraud in the PSV sector, drivers driving history, engine cubic capacity to weight ratio, incidence of intoxication while driving, drivers level of driving proficiency, vehicle maintenance and condition, number of hours worked by drivers, passenger carrying capacity, tendency to over speed, drivers medical history, the claims ratio for the sector and use of co-insurance (“ceeding”) to spread the risk. All these observations had mean values above 3.00.

**Table 1 Relative Importance of Parameters When Rating before Implementation of LNN 161**

Rating Parameters	N	Mean	Std. Dev.
Drivers age	4	4.25	.957
Risk of fraud in the PSV sector	4	4.25	1.500
Drivers driving history	4	4.00	1.155
Engine cubic capacity to weight ratio	3	4.00	1.732
Incidence of intoxication while driving	4	4.00	1.155
Drivers level of driving proficiency	4	3.75	.957
Vehicle maintenance and condition	4	3.75	1.258
Number of hours worked by drivers	3	3.67	1.155
Passenger carrying capacity	4	3.50	1.732
Tendency to over speed	4	3.50	1.732
Drivers medical history	3	3.33	1.155
The claims ratio for the sector	4	3.25	2.062
Use of co-insurance (“seeding”) to spread	4	3.25	1.258
High claims frequency/value	4	3.00	1.414
Market value of insured vehicle	4	3.00	.000
Modification and enhancements to the PSV	4	3.00	1.414
Need to maximize on use to optimize profits	4	3.00	1.414
The expense ratio in the PSV sector	4	3.00	1.414
Route plied by the PSV	4	2.75	1.258
Type of cover required	4	2.00	1.414
Valid N (list wise)	3		

The pattern of importance of these findings confirm observations in the literature review to the effect that drivers driving history, level of intoxication and age are all linked to a drivers driving proficiency and that driver qualification and length of hours worked are important risk mitigating measures put in place by insurers to reduce risk. Also confirmed from the literature was the observation that driver’s age was seen to be important owing to the propensity of young drivers in particular, to engage in high risk behaviours.

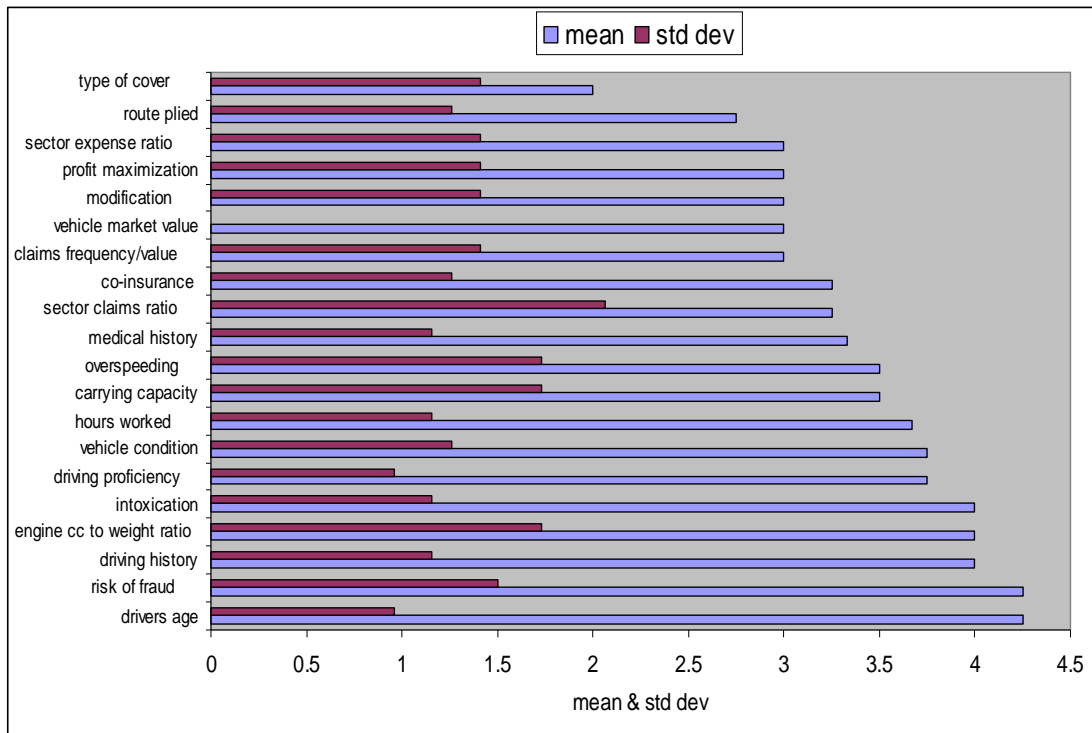
Such behaviours as documented include driving fast for thrills; taking risks for fun; reckless overtaking; and following very close behind slower drivers. Documented characteristics of persons likely to be involved in accidents are those likely to be involved in among other things, drug and alcohol abuse. In this study, it is such aspects of driver characteristics that emerged as top concerns for the local insurance industry as they are immediate determinants of the level of risk that the insurers will face.

Given the risk level posed by ‘Matatu’ drivers in Kenya as pointed out in the review, the study findings reflect the insurers concerns in this area. Market value of insured vehicle



had a zero standard deviation implying that all four respondents who answered this question rated it equally. Driver's age and proficiency had standard deviation values below 1.00 indicating close agreement among the respondents as to their level of importance when rating PSV. The rest of the observations had standard deviation values above 1.00 indicating wide differences in opinions as to their level of importance. This could be due to the fact that all these factors, other than driver's age and proficiency impacted the insurers' bottom lines differently, and hence received different ratings.

**Figure 1      Relative Importance of Parameters When Rating before Implementation of LNN 161**



The least important rating factors were the route plied by the PSV and type of cover required with mean values of less than 3.00 and in that order. Type of cover may have been the lowest rated parameter owing to the fact that 'Matatu' owners almost always prefer third party cover only since it is the least expensive. Also, route restriction seemed not to feature highly in the rating requirements. This is contrary to observations in the literature review where route restriction was used to minimize risk but its low mean value may imply that it was not yielding the expected results. All these findings are further visually illustrated in the bar chart in Figure 1.

**Table 2      Relative Importance of Parameters When Rating After Implementation of LNN 161**

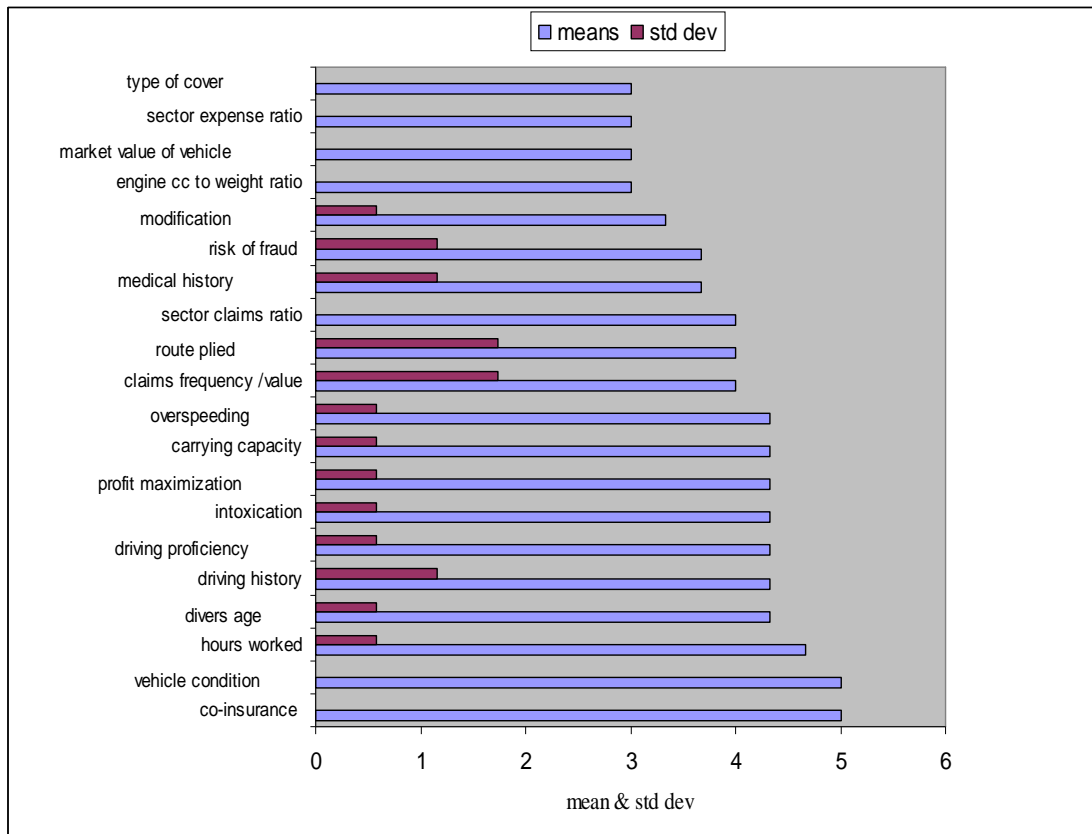
Rating Parameters	N	Mean	Std. Dev.
Use of co-insurance (“ceeding”) to spread	2	5.00	.000
Vehicle maintenance and condition	3	5.00	.000
Number of hours worked by drivers	3	4.67	.577
Drivers age	3	4.33	.577
Drivers driving history	3	4.33	1.155
Drivers level of driving proficiency	3	4.33	.577
Incidence of intoxication while driving	3	4.33	.577
Need to maximize on use to optimize profits	3	4.33	.577
Passenger carrying capacity	3	4.33	.577
Tendency to over speed	3	4.33	.577
High claims frequency /value	3	4.00	1.732
Route plied by the PSV	3	4.00	1.732
The claims ratio for the sector	3	4.00	.000
Drivers medical history	3	3.67	1.155
Risk of fraud in the PSV sector	3	3.67	1.155
Modification and enhancements to the PSV	3	3.33	.577
Engine cubic capacity to weight ratio	3	3.00	.000
Market value of insured vehicle	3	3.00	.000
The expense ratio in the PSV sector	3	3.00	.000
Type of cover required	3	3.00	.000
Valid N (list wise)	2		

From Table 2, after implementation of Legal Notice Number 161, the rating parameters that were most important, in order of importance from highest to lowest were the use of co-insurance (“ceeding”) to spread risk, vehicle maintenance and condition, number of hours worked by drivers, drivers age, driving history, drivers level of driving proficiency, incidence of intoxication while driving, need to maximize on use to optimize profits, passenger carrying capacity, tendency to over speed, high claims frequency/value, route plied by the PSV, the claims ratio for the sector, drivers medical history and risk of fraud in the PSV sector.

Driver’s characteristics and work ethics took on lesser importance and were replaced by insurance mechanisms and vehicle related factors. These may have been due to the

emphasis placed by provisions of the legal notice on discipline in the sector. At the top of the table, use of co-insurance and vehicle maintenance and condition replaced drivers age and risk of fraud in the PSV sector as the most important rating factors after the implementation of the Legal Notice. Their zero standard deviations indicated total agreement among the respondent's opinions as to their importance.

**Figure 2      Relative Importance of Parameters When Rating After Implementation of LNN 161**



The least important were engine cubic capacity to weight ratio, market value of insured vehicle, the expense ratio in the PSV sector and type of cover required with a mean value 3.00 (important) for all. All these factors had standard deviations of zero implying no dispersion about the mean, implying that all the respondents who answered these questions rated these factors in the same way. Market value of the insured vehicle and expense ratio did not show much significant change before and after implementation of the law.

Market value of the vehicles is unaffected by implementation of the legal notice as this is determined by forces of demand and supply. Expense ratio covers expenses that must be met irrespective of the number of policies sold. This factor witnessed a drop in rating attributed to an expected drop in operating expenses due safer driving practices. Figure 2 further illustrates this perspective for the significant parameters relative to the rest.

#### **4.2.2 To determine how the Provisions of Legal Notice Number 161 have affected the Claims Process**

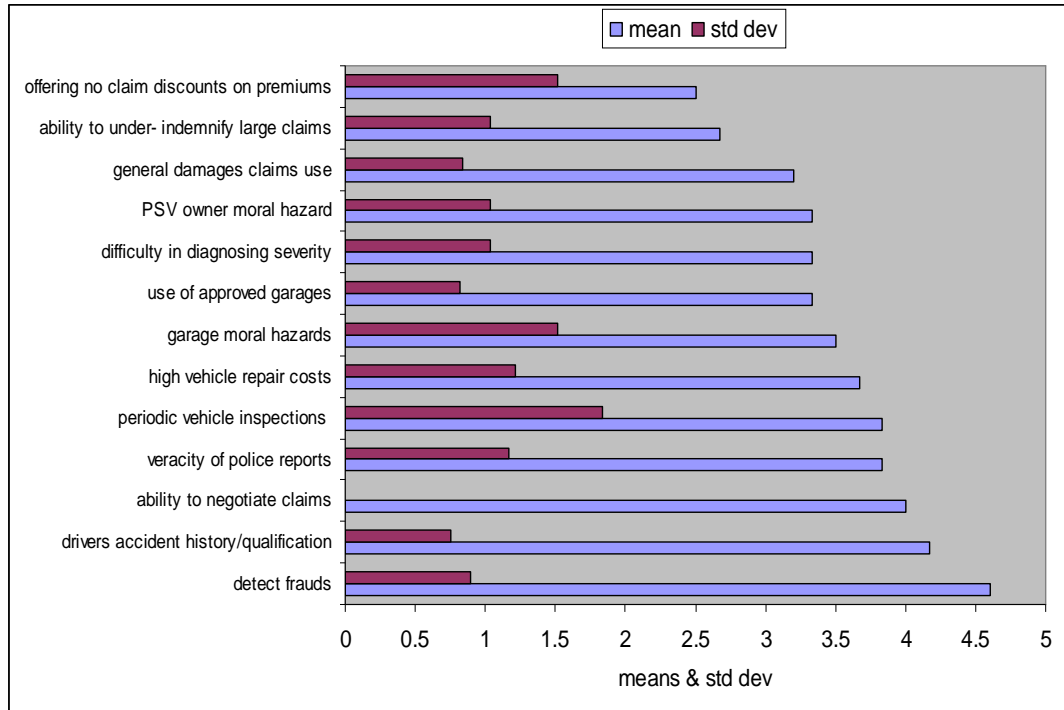
**Table 3      Relative Importance of Claims Payment Factors before Implementation of LNN 161**

Claim Payment Factors	N	Mean	Std. Dev.
Ability to insurer to detect fraud by conducting audits	5	4.60	.894
Records of drivers accident history/qualification	6	4.17	.753
Insurers ability to negotiate claims	3	4.00	.000
Veracity of police reports regarding the accident situation	6	3.83	1.169
Periodic vehicle inspections to ensure roadworthiness	6	3.83	1.835
High cost of vehicle repairs	6	3.67	1.211
Moral hazards arising from the garage owners	6	3.50	1.517
Use of approved garages only by PSV operators	6	3.33	.816
Difficulty inherent in diagnosing severity	6	3.33	1.033
Moral hazard arising from PSV owners	6	3.33	1.033
Increased use of general damages claims	5	3.20	.837
Insurers ability to under- indemnify large claims	6	2.67	1.033
Offering no claim discounts on premiums payable for PSV with low claim frequencies	6	2.50	1.517
Valid N (List Wise)	3		

From Table 3, before implementation of Legal Notice Number 161, ability of insurer to detect fraud by conducting audits, records of drivers accident history/qualification, insurers ability to negotiate claims, veracity of police reports regarding the accident situation, periodic vehicle inspections to ensure roadworthiness, high cost of vehicle repairs, moral hazard arising from the garage owners, use of approved garages only by

PSV operators, difficulty inherent in diagnosing severity, moral hazard arising from PSV owners and increased use of general damages claims had the most important rating parameters in descending order.

**Figure 3      Relative Importance of Claims Payment Factors before Implementation of LNN 161**



Insurer's ability to negotiate claims had a standard deviation of zero implying total agreement among the respondents. The top two factors also had standard deviations below 1.00 implying close agreement among the respondents. Insurer's ability to conduct audits may have been the most important owing to the rampant indiscipline in the sector before implementation of the legal notice, making follow up of issues critical. There was the existence of collusion between operators and police to defraud insurers before implementation of the legal notice. This may have prompted the elevation of the ability of insurers to detect fraud by conducting audits as a most important finding since it would inherently be difficult for insurers to deal with such a situation.

This process would have been backed up by driver's accident history, a key ingredient in determining safe driving practices. Claims negotiation would then help in lowering the

quantum paid. Insurer's ability to under-indemnify large claims and offering no claim discounts on premiums payable for PSV with low claim frequencies were the lowest rated factors. No claims discounts are not used in Kenya, hence their lowest rating position. Figure 3 visually illustrates these relationships.

Again, claim investigation needs to evidence instances of safe driving in order for a claim to be valid. This will implicate the driver's accident history/qualifications. In event of a claim, the driver's history will undoubtedly be of particular importance. Police records regarding accident situations were also suspect owing to collusion with operators to defraud, hence the level of importance of the veracity of police records in the findings. General damages are used to lower the liability exposure caused by high risk exposure to specials damages. It would appear that these were not widely used before implementation of the legal notice.

**Table 4      Relative Importance of Claims Payment Factors after Implementation of LNN 161**

Claim Payment Factors	N	Mean	Std. Dev.
Ability of insurer to detect fraud by conducting audits	3	4.33	.577
Use of approved garages only by PSV sector operators	5	4.00	.707
Veracity of police reports regarding the accident situation	5	4.00	1.000
Records of drivers accident history/qualification	5	3.80	.447
Moral hazard arising from PSV owners	4	3.75	.957
Increased use of general damages claims	3	3.67	.577
High cost of vehicle repairs	5	3.60	.548
Periodic vehicle inspections to ensure roadworthiness	5	3.60	1.517
Insurers ability to negotiate claims	2	3.50	2.121
Moral hazards arising from the garage owners	5	3.40	.548
Difficulty inherent in diagnosing severity	5	3.20	1.304
Insurers ability to under- indemnify large claims	5	3.00	1.225
Offering no claim discounts on premiums payable for PSV with low claim frequencies	5	1.60	.894
Valid N (List Wise)	2		

From Table 4, after implementation of legal notice number 161, ability of insurer to detect fraud by conducting audits, use of approved garages only by PSV sector operators,

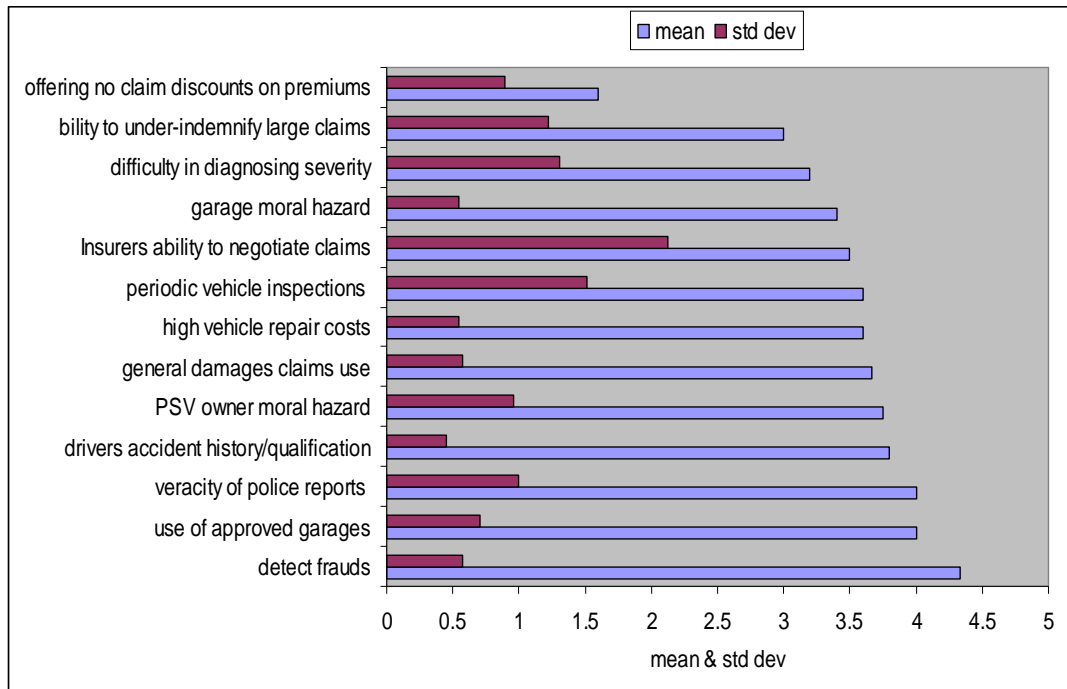
veracity of police reports regarding the accident situation, records of drivers accident history/qualification, moral hazard arising from PSV owners, increased use of general damages claims, high cost of vehicle repairs, periodic vehicle inspections to ensure roadworthiness, insurers ability to negotiate claims, moral hazards arising from the garage owners and difficulty inherent in diagnosing severity were the most highly rated factors in descending order of importance.

Ability of insurer to detect fraud by conducting audits retained its top ranking both before and after implementation of the legal notice. Use of approved garages gained in importance greatly after the implementation of the notice compared to before. Both these had standard deviations of below 1.00 implying close agreement among the respondents. These findings can be attributed to the fact that in a regulated environment, the insurers became more rigorous as shown by the prominence of the top five features. Records of driver's accident history/qualification, moral hazard arising from PSV owners, increased use of general damages claims, high cost of vehicle repairs and moral hazard arising from the garage owners all had standard deviations below 1.00. This was an indicator of the close similarity in rating by the respondents.

Naturally, in order to secure payment, the insured parties would try to outwit the insurers, thus raising the moral hazard. Insurer's ability to negotiate claims also registered a marked fall, but it may not have been relevant on a regulated environment. Insurer's ability to negotiate claims that they suspect are exaggerated or fraudulent is a way of forcing down build-up claims. Its high standard deviation of 2.121 reflected lack on consensus among the respondents as to its relative importance.

Insurer's ability to under-indemnify large claims to deter fraud and offering no claim discounts on premiums payable for PSV with low claim frequencies were ranked at the bottom of the scale both before and after implementation of the legal notice. After implementation of the legal notice, offering no claim discounts on premiums payable for PSV a low standard deviation of .894, implying close agreement among the respondents. Figure 4 is a graphical illustration of these findings.

**Figure 4      Relative Importance of Claims Payment Factors after Implementation of LNN 161**



Other response by the respondents as to the impact of the introduction of legal notice 161 on claims was a tremendous reduction of injury related claims. The insurer could also project the number of expected claimants since the number of passengers in the vehicle was known. Other respondents noted that there was reduced road carnage but owing to non-compliance, the accident situation was worsening. Other respondents noted an increase in investors in the sector, discipline among the 'Matatu' crew and the ease of contacting them.



### 4.3 To Determine Challenges Faced in the Underwriting and Claims Process

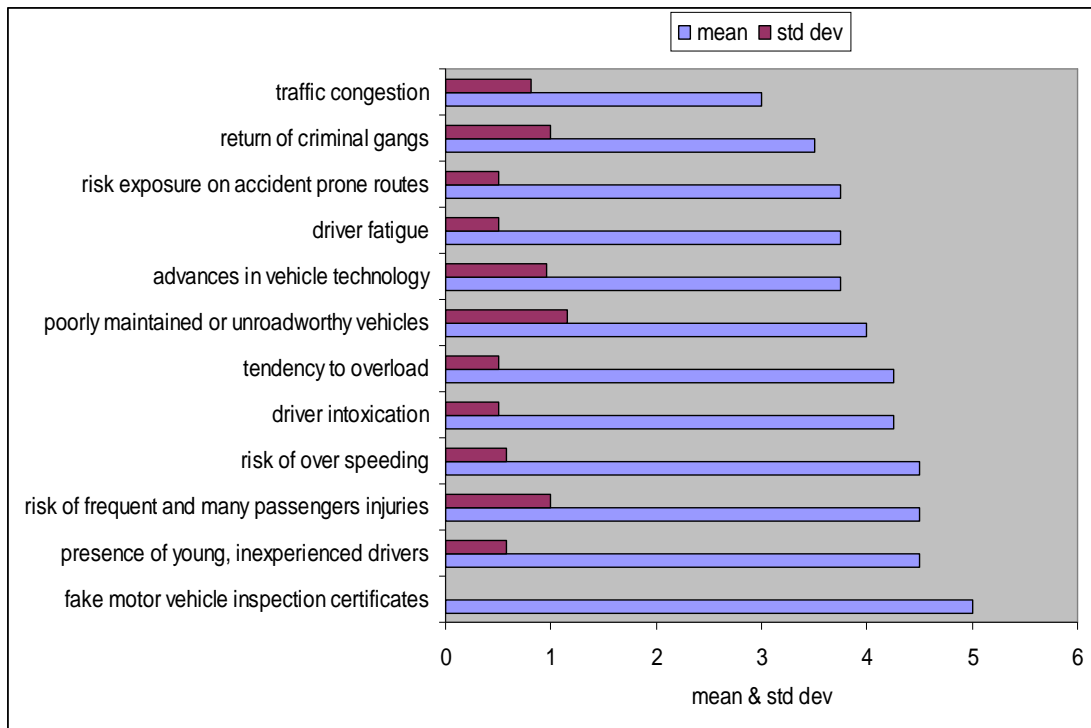
#### 4.3.1 Underwriting Challenges

**Table 5 Challenges facing Underwriters**

Challenges	N	Mean	Std. Dev.
Issuance of fake motor vehicle inspection certificates increasing insurers adverse selection hazard	4	5.00	.000
Increasing presence of young, inexperienced drivers	4	4.50	.577
Risk of frequent and many passengers injuries owing to failure to use occupant restraints	4	4.50	1.000
Risk of over speeding due to tampering with speed governors	4	4.50	.577
Tendency for drivers to be intoxicated	4	4.25	.500
Tendency to overload vehicles	4	4.25	.500
Poorly maintained or unroadworthy vehicles present on the roads	4	4.00	1.155
Advances in vehicle technology pushing costs of repair up thus increasing premiums	4	3.75	.957
Driver fatigue due to long working hours	4	3.75	.500
High risk exposure along certain accident prone routes	4	3.75	.500
Return of criminal gangs along given routes that may cause mayhem and malicious damage to PSVs	4	3.50	1.000
Traffic congestion along routes causing minor accidents	4	3.00	.816
Valid N (listwise)	4		

As shown in Table 5, the most significant underwriting challenges were issuance of fake motor vehicle inspection certificates increasing insurers adverse selection hazard, increasing presence of young, inexperienced drivers, risk of frequent and many passengers injuries owing to failure to use occupant restraints, risk of over speeding due to tampering with speed governors, tendency for drivers to be intoxicated, tendency to overload vehicles, poorly maintained or unroadworthy vehicles present on the roads, advances in vehicle technology pushing costs of repair up thus increasing premiums, driver fatigue due to long working hours, high risk exposure along certain accident prone routes and return of criminal gangs along given routes that may cause mayhem and malicious damage to PSV(s) in descending order of importance. All the rating factors indicated above show different levels of significance.

**Figure 5 Challenges facing Underwriters**



The findings confirm what was noted in the literature review where it is observed that fraud using fake driving licenses was rampant in the industry; this had a zero standard deviation, implying total agreement among the respondents. They also confirmed that over speeding was a priority for the owners who sought to maximize returns and also passengers who would harass drivers to speed so that they could get to their destinations quickly and the increasing use of squad (young, inexperienced) drivers who posed a risk owing to poor qualifications and driving history. Despite their negative impact on the industry, criminal gangs did not seem to pose a serious challenge to the insurer compared to the other factors. Other than the issue of unroadworthy vehicles, all the other challenges had standard deviations of 1.000 or less, indicating close agreement among the respondents as to their importance. This can be attributed to their focus which is mainly the 'Matatu' owners and operators. Figure 5 illustrates these challenges.

Other responses intimated that the impact of the introduction of the legal notice on underwriting led to reduced volumes due to non-compliant clients who were turned away, with a corresponding rapid increase in volumes owing to increased investor confidence in this kind of business. Again, implementation of the notice introduced discipline and

sanity in the sector, making it viable and attracting interest with new and serious players investing.

Risk mitigating measures in place to alleviate underwriting issues included asking for documents, certification of the existence of motor vehicle copies of log books, installation of speed governor certificates, crew certificates of good conduct, minimizing vehicles carrying capacity, restricting routes for ease of declarations, proper investigation of accidents immediately they occur, proper partnership between the insurers, traffic police and government, and licensing requirements for 'Matatu' operation. On a negative note, one respondent observed that although the 'Michuki' rules such as installation of speed governors and seat belts were all good risk management measures, the implementing authorities seem to have lost out. This led to a resurgence of severe accidents and subsequent expensive claims, causing many underwriters to avoid insuring the sector.

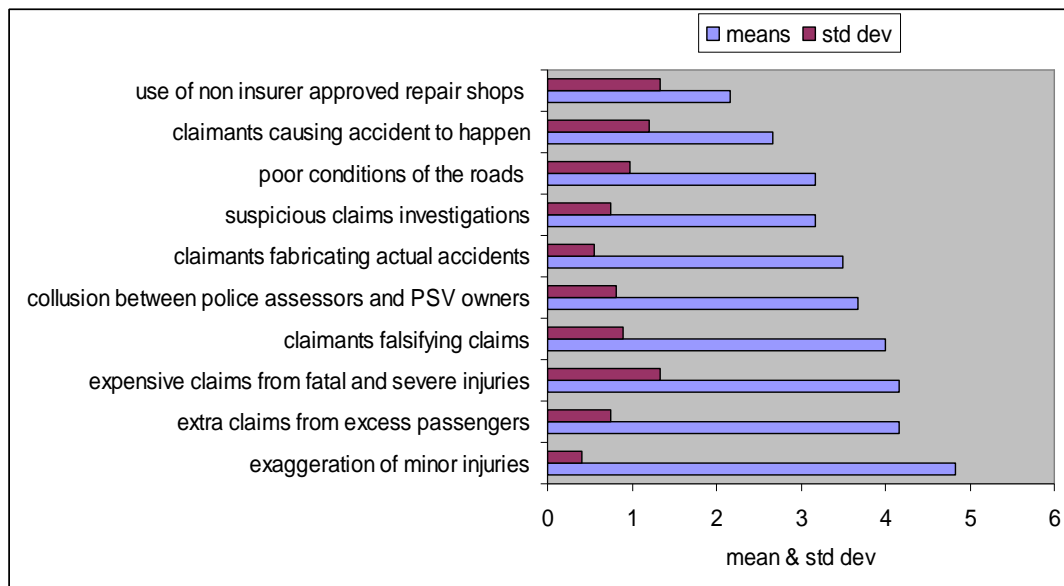
#### **4.3.2 Claims Challenges**

From Table 6, the significant claims challenges were exaggeration of minor injuries such as sprains and strains to raise compensation, cost of extra claims brought in by excess passengers, expensive claims from fatal and severe injuries to passengers, claimants taking advantage of accidents to falsify claims, collusion between police assessors and PSV owners in defrauding the insurer, claimants fabricating actual accidents to qualify for compensation, high cost incurred in suspicious claims investigations and poor conditions of the roads increasing claims from accident and repair.

As seen in the literature review, sprains and strains which fall under soft tissue injury categories are normally difficult to diagnose and expensive and this study's findings confirms their importance. Again, it was noted that flouting of the law is rampant in some routes where 'Matatu's' carry excess passengers as this exposes insurers to expensive litigation from these passengers. These two top rated challenges had standard deviations less than 1.00 implying close agreement among the respondents as to the extent of their challenges these factors posed. Claimants causing accident to happen in order to be compensated and use of non insurer approved repair shops resulting in poor quality workmanship were the lowest ranked claims challenges. Figure 6 illustrates these relationships. High standard deviations greater than 1.00 indicated a lack of close agreement among the respondents as to the extent of their impact.

**Table 6**      **Claims Challenges**

Claims Challengers	N	Mean	Std. Deviation
Exaggeration of minor injuries such as sprains and strains to raise compensation	6	4.83	.408
Cost of extra claims brought in by excess passengers	6	4.17	.753
Expensive claims from fatal and severe injuries to passengers	6	4.17	1.329
Claimants taking advantage of accidents to falsify claims	6	4.00	.894
Collusion between police assessors and PSV owners in defrauding the insurer	6	3.67	.816
Claimants fabricating actual accidents to qualify for compensation	6	3.50	.548
High cost incurred in suspicious claims investigations	6	3.17	.753
Poor conditions of the roads increasing claims from accident and repair	6	3.17	.983
Claimants causing accident to happen in order to be compensated	6	2.67	1.211
Use of non insurer approved repair shops resulting in poor quality workmanship	6	2.17	1.329
Valid N (List wise)	6		

**Figure 6**      **Claims Challenges**

In order to mitigate risks, respondents proposed the introduction of fleet management and eradication of 'touting', introduction of passenger ticketing, sensitizing the public on the need to obey traffic laws, an increase in insurance premiums, enforcing compliance,

increase driver's age limits and experience, use of properly trained and qualified drivers, thorough inspection of PSV, the instigation of awards targeting good drivers, thorough investigation of accidents when they occur, continued observance of road safety measures by vehicle owners, authentication of claimants injuries by approved medical practitioners, use of speed governors, licensing of qualified drivers only and authentication of claimants hospital records.

## **CHAPTER FIVE      SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1      Introduction**

This chapter summarizes the findings, draws conclusions relevant to the research, and makes recommendations on the same. Just to recap, the study had two objectives, namely, to determine how the provisions of Legal Notice Number 161 have affected the underwriting and claims process of PSV insurers in Kenya and to determine challenges faced in the underwriting and claims process of PSV insurers. To achieve this, a survey study was conducted using a 10-page questionnaire.

### **5.2      Summary of Findings**

The first objective of the research was to determine how the provisions of Legal Notice Number 161 have affected the underwriting and claims process of PSV insurers in Kenya. With respect to the underwriting process, before implementation of Legal Notice Number 161, driver's age and driving history and the risk of fraud in the PSV sector were the top three most important factors. Drivers driving history and age were both linked to driving proficiency and driver qualification and length of hours worked were key risk mitigating measures put in place by insurers to reduce risk. Hence this could account for their importance in the rating process.

Again, driver's age was important owing to the propensity of young drivers in particular, to engage in high risk behaviours. Risk of fraud in the sector was high owing to the many accidents and collusion between police, 'Matatu' owners and certain categories of insurers. The least important rating factors were the route plied by the PSV and type of cover required in that order. It was felt that route plied had no effect as risk was high in the sector as reviewed and that type of cover did not matter since most 'Matatu's' take third party cover.

After implementation of Legal Notice Number 161, the use of co-insurance ("ceeding") to spread risk, vehicle maintenance and condition, and the numbers of hours worked by drivers were the three most important elements of the rating process. Co-insurance may

have been a cautious approach by insurers towards investing in the sector as it enabled them to spread the risk. Again, vehicle maintenance and condition and number of hours worked were effective ways of further reducing the risk exposure of the insurers in the sector given the new regulatory environment. Issues to do with driver characteristics seen before implementation were no longer important as they had been addressed substantively by the provisions of the new law. Only hours worked was an issue as this could not be easily determined and the law may not have been effective in enforcing this requirement.

With regard to the claims process, before implementation of legal notice number 161, the top influential factors were the ability of insurer to detect fraud by conducting audits, records of driver's accident history/qualification and insurer's ability to negotiate claims. Audits and claims negotiation enable the insurer to verify claims and build down claims respectively; hence their importance.

On the other hand, drivers accident history/qualification are indicators of potential risk posed by drivers and thus, are also scrutinized as per the requirements of the legal notice. Insurer's ability to under- indemnify large claims and offering no claim discounts on premiums payable for PSV with low claim frequencies were the factors that were least rated. No claims discounts are not used in Kenya, while insurer's ability to under-indemnify large claims seems not to be a popular tactic for risk management.

After implementation of legal notice number 161, ability of insurers to detect fraud by conducting audits, use of approved garages only by PSV sector operators, and veracity of police reports regarding the accident situation were the most important claims factors. Fraud detection remained a top priority while approved garages and veracity of police reports were elevated to top rank. Police reports are crucial in helping insurers determine what happened and with the new legal dispensation, these were looked upon as sources of crucial information.

Use of approved garages came to the fore owing to the moral hazard posed by non-approved garages which was high before implementation and probably because the legal notice did not provide clear guidelines for this. Insurer's ability to under-indemnify large claims and offering no claim discounts on premiums payable for PSV with low claim frequencies were the lowest rated factors. These remained the same as before.

The most significant underwriting challenges were issuance of fake motor vehicle inspection certificates increasing insurers' adverse selection hazard, increasing presence of young, inexperienced drivers and risk of frequent and many passengers injuries owing to failure to use occupant restraints. As seen in the literature, fraud using fake driving licenses was rampant in the industry. There was also the increasing use of squad (young, inexperienced) drivers, who posed a risk owing to poor qualifications and unknown driving history. Occupant restraints were virtually non-existent in the sector before the notice which would cause exposure to minor and major injuries. It can be concluded that the legal notice did well in targeting real issues affecting rating in the sector in the sector.

This leads us to the most significant claims related challenges which were exaggeration of minor injuries such as sprains and strains to raise compensation, cost of extra claims brought in by excess passengers and expensive claims from fatal and severe injuries to passengers which were the highest ranked claims challenges. Sprains and strains which fall under soft tissue injury categories are normally difficult to diagnose and expensive. Also, flouting of the law was rampant in some routes where 'Matatu's' carried excess passengers-this exposed insurers to expensive litigation from such passengers. Given the difficulty in proving spurious claims, and their associated costs, the legal notice also aptly provided for measures to mitigate the risk associated with these.

### **5.3 Overall Conclusion**

For both the underwriting and claims process, there were observable changes that occurred both before and after the implementation of legal notice number 161. With underwriting, after implementation of the legal notice, there was a lesser emphasis on driver related issues and a greater emphasis on mechanisms that would be used to minimize risk. This is seen in the emphasis on co-insurance and vehicle conditions after the legal notice was implemented. It may have been felt that, given the new regulatory environment, the onus was now on the insurer to adopt rating practices that would result in maximising their benefits.

Claims related factors retained fraud detection as a top priority in both cases. Apparently, fraud is endemic since in both cases, the insured will always be trying to break the law and this risk would need to be mitigated. This is in a way supported by the fact that sprains and strains, which are difficult to diagnose and easy to defraud with, were the



challenge that bothered insurers the most. The top underwriting challenge, that is issuance of fake motor vehicle inspection certificates increasing insurer's adverse selection hazard, also reflected this risk.

#### **5.4 Limitations of the Study**

One respondent, an underwriting manager, did not respond (he returned a blank Questionnaire) and two claims managers. Also, the study focused only on the 'Matatu' sector and did not look at the entire PSV industry. Also, it is possible that respondents may have misunderstood certain questionnaire items and may have weighted their responses incorrectly.

#### **5.5 Recommendations for further Research**

This study recommends that further studies be carried out on the state of enforcement of provisions of the legal notice number 161 and its contribution to safe practices in the sector today. Any future studies could also look at the entire PSV sector. Further investigative studies could look at the frequent collapse of firms in the PSV insurance sector and propose the way forward to avoid this state of affairs. Finally, specific studies could look at specific aspects of underwriting and claims such as fraud in both areas with a view to pointing out inadequacies and areas for further improvement. Given the passage of time, the continuously changing political and legal environment, it would be interesting to find out how these have affected insurers of not only the 'Matatu' sector but the PSV industry as a whole.

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## APPENDIX 1

### Letter to the Underwriting Manager



University of Nairobi  
School of Business  
P.O. Box 30197, Nairobi  
Nairobi, Kenya

Telephone: +2542-318262  
Telegrams: "Varsity",  
Telex: 22095 Varsity

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**Dear Sir/Madam,**

#### **To Whom It May Concern**

The bearer of this letter: \_\_\_\_\_

Registration Number: \_\_\_\_\_ Tel: \_\_\_\_\_

is a Master of Business Administration (MBA) student at the University of Nairobi. The student is required to submit, as part of the coursework assessment, a research project report on a given management problem. We would like the students to do their projects on real problems affecting firms in Kenya today. We would therefore appreciate if you assist the student collect data in your organization to this end. The results of the report will be used solely for purpose of the research and in no way will your organization be implicated in the research findings. A copy of the report can be availed to the interviewed organization(s) on request.

Thank you,

The Coordinator,

MBA program



1. Before the implementation, in 2003, of Legal Notice Number 161, that introduced Public Service Vehicle (PSV) sector reforms in Kenya, indicate below the relative importance of the below parameters when **rating** passenger carrying PSVs (**use the scale below**).

**1 = Not important; 2 = Somewhat important; 3 = Important;**

**4 = Very important; 5 = Most important**

**Level of Importance**

<b>Rating Parameters</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Drivers age					
Drivers driving history					
Drivers level of driving proficiency					
Drivers medical history					
Engine cubic capacity to weight ratio					
High claims frequency/value					
Incidence of intoxication while driving e.g.					
Market value of the insured vehicle					
Modification and enhancements to the PSV					
Need to maximize on use to optimize profits					
Number of hours worked by drivers					
Passenger carrying capacity					
Risk of fraud in the PSV sector					
Route plied by the PSV					
Tendency to over speed					
The claims ratio for the sector					
The expense ratio in the PSV sector					
Type of cover required					
Use of co-insurance (“ <i>seeding</i> ”) to spread the					
Vehicle maintenance and condition					

2. One year after the implementation, in 2003, of Legal Notice Number 161, that introduced Public Service Vehicle (PSV) sector reforms in Kenya, indicate below the relative importance of the below parameters when **rating** passenger carrying PSVs (**use the scale below**).

**1 = Not important; 2 = Somewhat important; 3 = Important;**

**4 = Very important; 5 = Most important**

**Level of Importance**

<b>Rating Parameters</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Drivers age					
Drivers driving history					
Drivers level of driving proficiency					
Drivers medical history					
Engine cubic capacity to weight ratio					
High claims frequency/value					
Incidence of intoxication while driving e.g.					
Market value of the insured vehicle					
Modification and enhancements to the PSV					
Need to maximize on use to optimize profits					
Number of hours worked by drivers					
Passenger carrying capacity					
Risk of fraud in the PSV sector					
Route plied by the PSV					
Tendency to over speed					
The claims ratio for the sector					
The expense ratio in the PSV sector					
Type of cover required					
Use of co-insurance (“ <i>ceeding</i> ”) to spread the					
Vehicle maintenance and condition					

3. Using the scale below, indicate the extent to which the below mentioned challenges affect insurance sector players when **underwriting** PSVs.

**1 = no extent at all;      2 = mild extent;      3 = fairly high extent;**

**4 = high extent;   5 = a great extent**

**Extent**

<b>Underwriting Challenges</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Advances in vehicle technology pushing costs of repair up thus increasing premiums					
Driver fatigue due to long working hours					
High risk exposures along certain accident prone routes					
Increasing presence of young, inexperienced drivers					
Issuance of fake motor vehicle inspection certificates increasing insurers adverse selection hazard					
Poorly maintained or unroadworthy vehicles present on the roads					
Return of criminal gangs along given routes that may cause mayhem and malicious damage to PSVs					
Risk of frequent and many passengers injuries owing to failure to use occupant restraints					
Risk of over speeding due to tampering with speed governors					
Tendency for drivers to be intoxicated					
Tendency to overload vehicles					
Traffic congestion along routes causing minor accidents					

4. What was the impact of the introduction of Legal Notice Number 161 on the volume of business from the Matatu sector new investors to the sector)?

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5. What risk mitigating initiatives, if any, were or are in place to encourage insurers to underwrite more clients from the Matatu Industry?

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## APPENDIX 2

### Letter to the Claims Manager



University of Nairobi  
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Nairobi, Kenya

Telephone: +2542-318262  
Telegrams: "Varsity",  
Telex: 22095 Varsity

=====

**Dear Sir/Madam,**

#### **To Whom It May Concern**

The bearer of this letter: \_\_\_\_\_

Registration Number: \_\_\_\_\_ Tel: \_\_\_\_\_

is a Master of Business Administration (MBA) student at the University of Nairobi. The student is required to submit, as part of the coursework assessment, a research project report on a given management problem. We would like the students to do their projects on real problems affecting firms in Kenya today. We would therefore appreciate if you assist the student collect data in your organization to this end. The results of the report will be used solely for purpose of the research and in no way will your organization be implicated in the research findings. A copy of the report can be availed to the interviewed organization(s) on request.

Thank you,

The Coordinator,

MBA program

1. Before the implementation, in 2003, of the Legal Notice Number 161, indicate below the relative importance of the below parameters assessing PSV sector accident claims (**use the scale below**).

**1 = Not important; 2 = Somewhat important; 3 = Important;**

**4 = Very important; 5 = Most important**

**Level of Importance**

<b>Claim Payment Factors</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Ability of insurer to detect fraud by conducting detailed audits of suspicious claims					
Use of approved garages only by PSV sector operators					
Difficulty inherent in diagnosing the severity of minor injuries typically suffered in accidents					
Records of drivers accident history/qualification					
Increased use of general damages claims in lieu of special damages claims					
Insurers ability to negotiate claims that they suspect are exaggerated or fraudulent					
Insurers ability to under-indemnify large claims to deter fraud					
Moral hazard arising from PSV owners tendency to over claim					
Moral hazard arising from the garage owners tendency to augment work to increase profits					
Veracity of police reports regarding the accident situation					
High cost of vehicle repairs					
Periodic vehicle inspections to ensure roadworthiness					
Offering no claim discounts on premiums payable for PSV with low claim frequencies					

2. After the implementation, in 2003, of the Legal Notice Number 161, indicate below the relative importance of the below parameters assessing PSV sector accident claims (**use the scale below**).

1 = Not important; 2 = Somewhat important; 3 = Important;

4 = Very important; 5 = Most important

Level of Importance

<b>Claim Payment Factors</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Ability of insurer to detect fraud by conducting detailed audits of suspicious claims					
Use of approved garages only by PSV sector operators					
Difficulty inherent in diagnosing the severity of minor injuries typically suffered in accidents					
Records of drivers accident history/qualification					
Increased use of general damages claims in lieu of special damages claims					
Insurers ability to negotiate claims that they suspect are exaggerated or fraudulent					
Insurers ability to under-indemnify large claims to deter fraud					
Moral hazard arising from PSV owners tendency to over claim					
Moral hazard arising from the garage owners tendency to augment work to increase profits					
Veracity of police reports regarding the accident situation					
High cost of vehicle repairs					
Periodic vehicle inspections to ensure roadworthiness					
Offering no claim discounts on premiums payable for PSV with low claim frequencies					

3. Using the scale below, indicate the extent to which the below mentioned challenges affect insurance sector players when assessing **claims** from PSVs.

1 = no extent at all;      2 = mild extent;      3 = fairly high extent;

4 = high extent;    5 = a great extent

### Extent

Claims Challenges	1	2	3	4	5
Claimants causing accidents to happen in order to be compensated					
Claimants fabricating actual accidents to qualify for compensation.					
Claimants taking advantage of accidents to falsify claims					
Collusion between police assessors and PSV owners in defrauding the insurer					
Cost of extra claims brought in by excess passengers					
Exaggeration of minor injuries such as sprains and strains to raise compensation					
Expensive claims from fatal and severe injuries to passengers					
High costs incurred in suspicious claim investigations					
Poor conditions of the roads increasing claims from accident and repair					
Use of non-insurer approved repair shops resulting in poor quality workmanship					



4. What was the impact of the introduction of Legal Notice Number 161 on the claims from the Matatu sector new investors to the sector)?

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5. What risk mitigating initiatives, if any, were or are in place to reduce claims from the Matatu Industry?

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**Thank you for filling this Questionnaire**

## **APPENDIX 3**

### **List of Insurance Companies in Kenya that transacts PSV Insurance**

1	African Merchant Company (AMACO)
2	Blue Shield Insurance
3	Directline Assurance
4	Gateway Insurance
5	Lion of Kenya
6	Standard Assurance

Source: Insurance Regulatory Authority (2008) [Online], extract of:  
[www.ira.go.ke](http://www.ira.go.ke)

## APPENDIX 4-RAW SCORES

Rating Parameters-Question 1	Questionnaires			
	1	2	3	4
Drivers age	4	5	3	-
Drivers driving history	5	5	3	-
Drivers level of driving proficiency	3	5	3	-
Drivers medical history	-	4	2	-
Engine cubic capacity to weight ratio	-	5	2	-
High claims frequency/value	2	5	3	-
Incidence of intoxication while driving e.g. alcohol	5	5	3	-
Market value of the insured vehicle	3	3	3	-
Modification and enhancements to the PSV	3	5	2	-
Need to maximize on use to optimize profits	2	5	2	-
Number of hours worked by drivers	-	5	3	-
Passenger carrying capacity	5	5	2	-
Risk of fraud in the PSV sector	5	5	2	-
Route plied by the PSV	4	3	1	-
Tendency to over speed	5	5	2	-
The claims ratio for the sector	5	5	1	-
The expense ratio in the PSV sector	3	5	2	-
Type of cover required	1	4	2	-
Use of co-insurance (“ <i>seeding</i> ”) to spread the risk	3	5	3	-
Vehicle maintenance and condition	4	5	2	-

Rating Parameters-Question 2	Questionnaires			
	1	2	3	4
Drivers age	5	-	4	-
Drivers driving history	5	-	5	-
Drivers level of driving proficiency	5	-	4	-
Drivers medical history	5	-	3	-
Engine cubic capacity to weight ratio	3	-	3	-
High claims frequency/value	5	-	5	-
Incidence of intoxication while driving e.g. alcohol	5	-	4	-
Market value of the insured vehicle	3	-	3	-
Modification and enhancements to the PSV	4	-	3	-
Need to maximize on use to optimize profits	5	-	4	-
Number of hours worked by drivers	4	-	5	-
Passenger carrying capacity	5	-	4	-
Risk of fraud in the PSV sector	5	-	3	-
Route plied by the PSV	5	-	5	-
Tendency to over speed	5	-	4	-
The claims ratio for the sector	4	-	4	-
The expense ratio in the PSV sector	3	-	3	-
Type of cover required	3	-	3	-
Use of co-insurance (“ <i>ceeding</i> ”) to spread the risk	-	-	5	-
Vehicle maintenance and condition	5	-	5	-

	<b>Questionnaire</b>			
<b>Underwriting Challenges-Question 3</b>	1	2	3	4
Advances in vehicle technology pushing costs of repair up thus increasing premiums	4	5	3	-
Driver fatigue due to long working hours	4	3	4	-
High risk exposures along certain accident prone routes	3	4	4	-
Increasing presence of young, inexperienced drivers	4	4	5	-
Issuance of fake motor vehicle inspection certificates increasing insurers adverse selection hazard	5	5	5	-
Poorly maintained or unroadworthy vehicles present on the roads	5	5	3	-
Return of criminal gangs along given routes that may cause mayhem and malicious damage to PSVs	4	2	4	-
Risk of frequent and many passengers injuries owing to failure to use occupant restraints	5	3	5	-
Risk of over speeding due to tampering with speed governors	5	5	4	-
Tendency for drivers to be intoxicated	5	4	4	-
Tendency to overload vehicles	5	4	4	-
Traffic congestion along routes causing minor accidents	2	3	3	-

Claim Payment Factors-Question 1	Questionnaires				
	1	2	3	4	5
Ability of insurer to detect fraud by conducting detailed audits of suspicious claims	5	5	3	5	-
Use of approved garages only by PSV sector operators	4	3	3	2	4
Difficulty inherent in diagnosing the severity of minor injuries typically suffered in accidents	3	5	3	4	2
Records of drivers accident history/qualification	3	5	4	5	4
Increased use of general damages claims in lieu of special damages claims	3	3	2	4	-
Insurers ability to negotiate claims that they suspect are exaggerated or fraudulent	-	4	4	-	-
Insurers ability to under-indemnify large claims to deter fraud	3	4	2	3	1
Moral hazard arising from PSV owners tendency to over claim	4	2	3	5	3
Moral hazard arising from the garage owners tendency to augment work to increase profits	5	1	4	5	3
Veracity of police reports regarding the accident situation	3	5	4	4	5
High cost of vehicle repairs	5	2	4	5	3
Periodic vehicle inspections to ensure roadworthiness	2	5	1	5	5
Offering no claim discounts on premiums payable for PSV with low claim frequencies	2	5	1	3	1

<b>Claims Payment Factors-Question 2</b>	<b>Questionnaires</b>				
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Ability of insurer to detect fraud by conducting detailed audits of suspicious claims	5	-	4	-	-
Use of approved garages only by PSV sector operators	5	-	4	3	4
Difficulty inherent in diagnosing the severity of minor injuries typically suffered in accidents	3	-	5	4	2
Records of drivers accident history/qualification	3	-	4	4	4
Increased use of general damages claims in lieu of special damages claims	3	-	4	-	-
Insurers ability to negotiate claims that they suspect are exaggerated or fraudulent	-	-	5	-	-
Insurers ability to under-indemnify large claims to deter fraud	4	-	3	4	1
Moral hazard arising from PSV owners tendency to over claim	5	-	4	-	3
Moral hazard arising from the garage owners tendency to augment work to increase profits	4	-	4	3	3
Veracity of police reports regarding the accident situation	3	-	4	3	5
High cost of vehicle repairs	4	-	4	4	3
Periodic vehicle inspections to ensure roadworthiness	2	-	2	4	5
Offering no claim discounts on premiums payable for PSV with low claim frequencies	3	-	2	1	1

<b>Claims Challenges-Question 3</b>	<b>Questionnaires</b>				
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Claimants causing accidents to happen in order to be compensated	5	2	2	3	2
Claimants fabricating actual accidents to qualify for compensation.	4	3	3	3	4
Claimants taking advantage of accidents to falsify claims	4	4	3	3	5
Collusion between police assessors and PSV owners in defrauding the insurer	3	5	3	3	4
Cost of extra claims brought in by excess passengers	3	4	4	4	5
Exaggeration of minor injuries such as sprains and strains to raise compensation	5	4	5	5	5
Expensive claims from fatal and severe injuries to passengers	5	3	2	5	5
High costs incurred in suspicious claim investigations	3	4	2	4	3
Poor conditions of the roads increasing claims from accident and repair	3	2	3	5	3
Use of non-insurer approved repair shops resulting in poor quality workmanship	4	1	3	3	1