

Sustainable solution to the role of law enforcement and judicial systems in curbing road traffic crashes: Lessons from the City of Tshwane, South Africa

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Abstract: This article explores the role of law enforcement and judicial management systems in curbing illegal vehicle speeding in the City of Tshwane. Although various measures have been adopted in addressing illegal vehicle speeding in South Africa, little is known about the efforts of law enforcement and judicial agencies in curbing the menace. From a qualitative study of participants from the City of Tshwane (formerly, Pretoria), this study specifically assesses whether the introduction of law enforcement and judicial management system have been effective in curbing illegal speeding. Findings indicate (amongst others) that the use of this management system has largely been counterproductive. Specifically, the introduction of law enforcement system was poorly planned and executed which subsequently engendered corruption among traffic officials. The study recommends regular information sharing between law enforcement and judicial and institutions through a unified information system in interfacing the different systems across the two institutions.

This study adopted a qualitative research method. A sample of 29 participants were drawn from the City of Tshwane. These participants were selected through a purposive sampling technique. The study also adopted a phenomenological research design with the aim of understanding the issues of interest from the participants' lived experiences. A semi-structured interview technique was used to collect data which was analysed using thematic analysis with the aid of Atlas.ti version 8. Axial coding was applied to connect various themes and subthemes into constructs that could answer the study research questions. The following themes were generated after initial coding and analyses using Atlas.ti. analytical software for qualitative research analysis. Codes were assigned after preliminary review of the data to establish the dominant themes. Law enforcement personnel, specifically traffic officers were a critical component of an effective speed management system based on the views of several interviewees including Interviewee 1, Interviewee I7, Interviewee 9, Interviewee 15, Interviewee 19 and Interviewee 28.

However certain qualities were required among law enforcement personnel these being moral uprightness to resist corruption, motivation to do one's job, expertise and knowledge emanating from good training and general psychological readiness to do the prescribed job. The study's interviewees highlighted the significance of visible traffic policing in curbing illegal speeding. Visible traffic policing served had a preventative effect on illegal speeding as speedsters were less likely to break laws in the presence of law enforcement agents. Also, visible traffic policing served as a punitive process for those caught over speeding.

The implementation of AARTO (Administrative Adjudication of Road Traffic Offences Act) is recommended. This is based on the findings that the judicial systems found road offences overwhelming and never gave them priority. This resulted in illegal speeding offenders escaping punishment from the law. Thus, AARTO could also motivate traffic law enforcement officers who have been demoralised by the perceived laxity of the mainstream judicial system in prosecuting and penalising traffic offences into action.

Keywords: City of Tshwane, illegal speed, judicial systems, law enforcement,

Introduction

Road traffic offences are common in virtually all parts of the world – from the United States of America (US), China, Italy, Germany, Australia, the United Kingdom (UK), to Australia, Nigeria, and South Africa (Vandroux, et al, 2022; Chen, et al, 2020; Weber, et al, 2019). However, the rate of traffic offences is relatively high in South Africa, particularly in the City of Tshwane (formerly known as Pretoria). Although traffic offences and penalties may also vary from country to country, but the effects of traffic offences for most societies are sometimes devastating, and could have significant impacts on the economy. Traffic offenders in South Africa may be fined for several reasons such as failing to comply with traffic officer’s instructions, reckless driving, driving under the influence of alcohol, driving without license, and over speeding, to mention a few (South Africa, 2008).

The South African government, especially the authorities of the City of Tshwane, requires special forces in curbing the country’s relatively high road traffic offence rate. Redressing the country’s relatively poor road traffic safety record is crucial and surmountable. Besides, occurrence of road crashes is amenable to scientific analysis and managerial adjustment (Koramati, et al., 2022), and do not manifest randomly, but in terms of identifiable regularities that vary across places, people, and time and in complex ways.

Importantly, weak enforcement of road traffic regulations and poor judicial capacity, among others, breed lawlessness, particularly in the area of road traffic management in the country. This may account, in part, for some of the current challenges faced by the state in mitigating road safety concerns in the country. Effective law enforcement response to road traffic offences requires a comprehensive research-based and systemic counteractive management system (see Siebrits, Du Plessis & Jansen, 2020). However, little is known about the effectiveness of this system in curbing traffic offences, particularly in the City of Tshwane. This article assesses both current law enforcement and judicial management systems in curbing road traffic offences, and provide pointers for strengthening partnership between the two institutions in terms of road traffic system management.

Literature review

Criminal justice agencies, particularly the police, played a role – although a quite diffuse role – in road traffic safety management between 1910 and 1994. Post-1994 South African legislation detailed this role, but restricted it to the local government level (Röthe, 2014; Juta Law, 2007; Rauch, *et al.*, 2001). Specifically, section 206(7) of *the Constitution of the Republic of South Africa* (Act 108 of 1996) as amended, made provisions for the establishment of municipalities, including provincial metropolitan police departments - whose responsibilities included, amongst other things, the enforcement of road traffic safety laws.

In addition, the *National Road Traffic Act* (93 of 1996) as amended, together with the *South African Police Service Act* (68 of 1995) as amended, and the *South African Police Service Amendment Act* (83 of 1998), empowered municipal/metropolitan police officers to *inter alia* enforce road traffic safety laws. For example, the *National Road Traffic Act* (93 of 1996) as amended stated: a “‘traffic officer’ means a traffic officer appointed in terms of section 3A ... and any member of a municipal police service ... as defined in section 1 of the *South African Police Service Act*, 1995” (South Africa, 1996). Section 64E(a) of the *South African Police Service Act* (68 of 1995), as amended by the *South African Police Service Amendment Act* (83 of 1998), specifies “traffic policing, subject to any legislation relating to road traffic”, as *one* of the functions of municipal/metropolitan police officers.

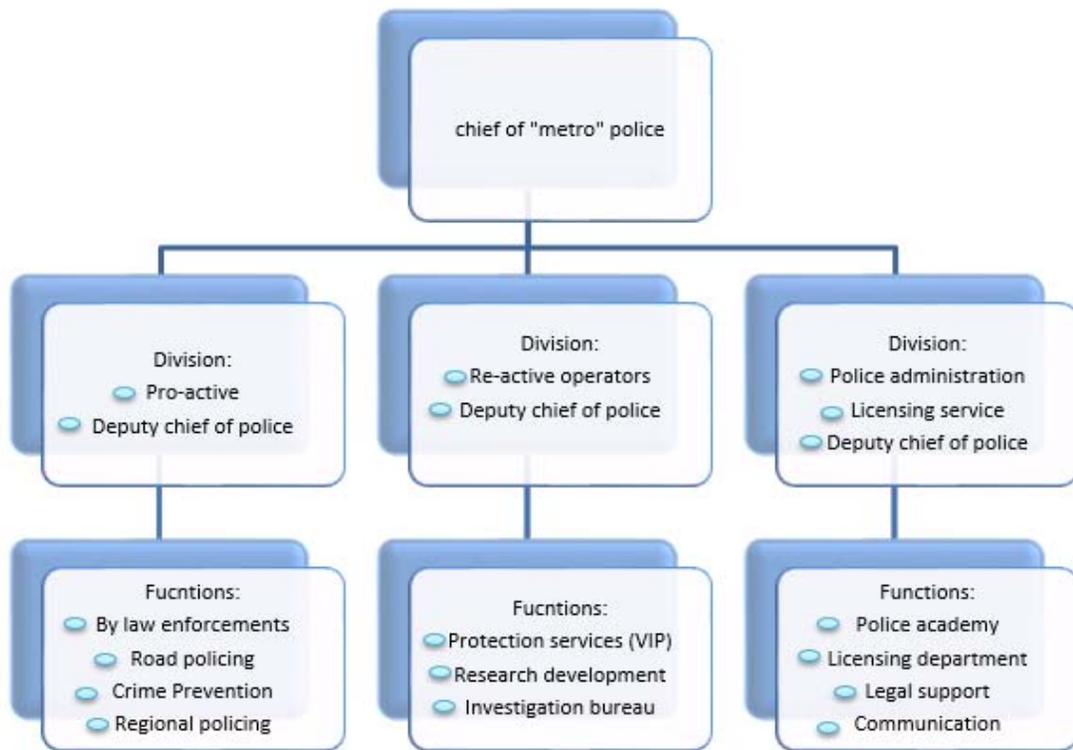
The first municipal police department to be established in the larger or metropolitan municipal areas in South Africa was the Durban Metropolitan Police Service (DMPS) in 2000. Rauch *et al.* (2001) also note that the DMPS replaced the “*Durban City Police*” (DCP) force that was established in 1854. The Ekurhuleni Metropolitan Department (EMPS) and the Tshwane Metropolitan Police Department (TMPD) followed in 2002 and, thereafter, the Cape Town Police Service (CPS) and the Johannesburg Metropolitan Police Department (JMPD).

Considering that the current paper focuses on Tshwane Metropolitan Municipality, the following more detailed information about the municipal police department in this area should also be noted: The TMPD was formally launched on 23 February 2002. Staff members were drawn from the former four traffic safety and security departments in the so-called Greater Pretoria, comprising Pretoria Central, Atteridgeville, Mamelodi and Centurion (Newham *et al.*, 2002). At its launch the TMPD had 560 active “metro” police officers operating with a budget of approximately R40 million and serving a population of 1.7 million people. In fact, a comparatively small complement of municipal police officers served the relevant area, that is one officer per 3 035 civilians (Newham *et al.*, 2002).

Furthermore, Act 68 of 1995 (as amended by Act 83 of 1998) stipulated that municipal police officers had the legal power to arrest, search and seize within their area of operation or jurisdiction. However, to avoid duplicating the work of the SAPS, municipal police officers had to work together with other relevant justice agencies, particularly the SAPS, for investigation and prosecution (Taumg et al, 2022).

Furthermore, in terms of Sections 205 and 206 of the 1996 Constitution, municipal police officers had a constitutional duty to render a road traffic law enforcement service to the public that is efficient and community-driven, not just reactive, but also proactively. Hence, by implication, municipal police officers *inter alia* had a constitutional duty to contribute towards road traffic safety proactively (Rauch et al., 2001). The operational structure of a typical metropolitan police department is presented in figure 1 below.

Figure 1: National operational structure of metropolitan police departments (in terms of Act 68 of 1995 as amended by Act 83 of 1998)



(Source: Act 68 of 1995)

Two other key post-1994 statutory initiatives also materialized namely the promulgation of the *Administrative Adjudication of Road Traffic Offences (AARTO) Act* (46 of 1998), and the *Road Traffic Management Corporation (RTMC) Act* (20 of 1999). These two initiatives were, as noted by Mynhardt (2013, p.104), were “supportive of key issues noted in the [earlier mentioned] 1996 White Paper on National Transport Policy”. More specifically, the *AARTO Act* (46 of 1998) provided for the adjudication function of the law enforcement component of road traffic safety management. The core aims of AARTO were to contribute towards (1) effecting road traffic safety through law enforcement, and (2) lessening the burden of the formal courts of law through a process in which:

- (AARTO adjudications of road traffic offences occurred outside a formal court of law by adjudicators who were not members of the formal judiciary but had the official authority to act like them;
- road users could elect to be prosecuted within a formal court of law instead of in an AARTO adjudication office in which case Section 341 of the Act applied and in terms of which the relevant road user would be issued with a summons to appear in a magistrate’s court;

- road users, charged with a road traffic law offence, were required to attend an adjudication/court hearing;
- road users convicted of a road traffic law offence who failed to contest the penalties imposed would be issued with a warrant for arrest;
- adjudicators'/magistrate courts' decisions regarding road traffic law offences committed were final; and
- adjudicators and other related staff had to ensure that the adjudication or, for that matter, prosecution process (for example regarding the penalties imposed) occurred speedily, smoothly, consistently, fairly and transparently across time, place and road users.

The implementation of AARTO was piloted in the City of Tshwane in Gauteng Province in 2008. In the course of the pilot, 2 056 traffic law offences were recorded in the relevant AARTO charge book. Table 1 below provides an example of: (1) the type of offences successfully adjudicated/prosecuted over the period 2008 in Gauteng. (2) the specific agency that adjudicated/prosecuted, and (3) the number of demerit points assigned to the respective offences, with the single highest number of offences relating to speeding (3 out of 12 offences).

Table 1: Traffic law offence convictions, prosecuting agency and number of demerit points assigned in Gauteng in 2008

Violation	Prosecuting agency	Fine	Points
Motor Vehicle displaying no number plate	Court	Not known	6
False number plates	Court	Not known	6
Reckless driving	Court	Not known	6
Driving under the influence	Court	Not known	6
Furnishing false information	Court	Not known	6
Exceeding the speed limit by 40km/h	Court	R1500	6
Exceeding the speed limit by 36km/h to 40km/h	AARTO Adjudication office	R1250	5
Exceeding the speed limit by 31km/h to 35km/h	AARTO Adjudication office	R1000	4
Failing to report crash	AARTO Adjudication office	R1000	3
Racing on a public road	AARTO Adjudication office	R500	3
Failing to yield to pedestrians	AARTO Adjudication office	R250	1
Not wearing a safety belt	AARTO Adjudication office	R150	0

Source: AARTO (2008)

Ratau (2008, p. 58) notes that AARTO attempts to facilitate compliance with road traffic laws through a behaviour conditioning process, i.e., “penalizing infringements and rewarding compliance”. In fact, the use of behaviour conditioning to effect safe driver behaviour is implicated in the application of AARTO’s demerit-point system.

In terms of this system:

- demerit points are recorded against a road user’s name when (a) he/she is legally convicted of a traffic law offence, (b) a legal enforcement order is issued which may also include the payment (for example in instalments) of monetary penalties and fees;
- the demerit points assigned are specific to the particular road traffic law offence committed;
- the drivers’ licenses of road users who have accumulated 12 points are suspended for three months after he/she has accumulated 12 points;
- demerit points remain on record for two years after they have been assigned; and
- Demerit points can be reduced at a rate of 1 point per three-month period, provided no further demerit point is incurred during the latter period.

Furthermore, the RTMC was established in 2005 in terms of Act 20 of 1999. It is statutorily mandated to *oversee* efforts towards effecting road traffic safety in the country. In fact, besides being the National Department of Transport's main road traffic safety "arm" the RTMC is the overall or "lead" road traffic safety agency in South Africa (International Transport Forum, 2017, p. 480).

Moreover, as noted by Moyana (2008, p. 404) and in line with the systems perspective of road traffic safety, the RTMC is statutorily expected to facilitate adequate road traffic safety measures, mobility and "discipline". The institution is also expected to partner with other relevant public and private (road traffic safety) agencies for synergic purposes. The RTMC operates in partnership with a wide range of government departments as well as other major road transport and traffic safety-related agencies such as the Road Accident Fund (RAF), the Road Traffic Infringements Agency (RTIA), the South African National Roads Agency (SANRAL), and the Cross-Border Roads Transport Agency (CBRTA) (International Transport Forum, 2017, p. 480).

Apart from the abovementioned statutory initiatives, national civil society road traffic safety programmes also evolved. Particular mention needs to be made of the *Arrive Alive* educational and information (Ratau, 2008, p. 61). It was initiated in 1997 and is still running. The programme focuses on facilitating road traffic safety through (1) the communication of (evidence-based) road traffic safety information, and (2) the education of the general public as well as road traffic safety agencies regarding road traffic risks and precautionary measures. Its educational efforts are especially directed at facilitating the development of a positive orientation towards road traffic safety among road users in the country.

Another characteristic of post-1994 road traffic safety initiatives is that it calls for the strengthening of road traffic law enforcement widened and increased in intensity. For example, deliberations at a National Road Traffic Indaba (national conference) in December 2016 (International Transport Forum, 2017, p. 480) focused on ways to improve road traffic law enforcement.

In conclusion, post-1994 road traffic safety developments were also characterized by renewed calls for an attempt to develop research-based road traffic safety measures. In fact, various post-1994 government road traffic safety policies, strategies and Acts called for the development of road traffic safety measures that were underpinned by academic research. Examples include: The *1996 White Paper on National Transport Policy* (Department of Transport, 1996), *The Road to Safety Strategy 2001–2005* (Department of Transport, 2001), the *National Road Safety Strategy 2006 Onwards* (Department of Transport, 2006), and the *Road Traffic Management Corporation (RTMC) Act (20 of 1999)*. The RTMC is also in the process of facilitating the establishment and maintenance of an efficient, reliable, comprehensive and integrated database on road traffic crashes and related issues (International Transport Forum, 2017, p. 276-277). Support for the RTMC's database initiative has also evolved within academic circles, particularly with the works of Mynhardt (2013) and Botha (2005). These authors specifically recommended the development of a comprehensive road traffic safety index that is based on the incidence of road traffic crashes, casualties and law transgressions, as well as road traffic performance and road traffic safety management efforts (see Mynhardt, 2013; Botha, 2005).

Efforts towards monitoring and evaluating the impact of road traffic safety measures also emerged. For example, the Department of Transport commissioned annual, methodologically comparable, national surveys of road traffic law offences in the country between 2007 and 2010 (Department of Transport, 2010). The surveys were directed at assessing to some extent the impact of the *Arrive Alive* educational programmes on road traffic law offences in the country.

Periodic estimates of the economic cost of road traffic crashes and casualties have also been initiated. The Department of Transport, in collaboration with the Council for Scientific and Industrial Research (CSIR), has initiated efforts to develop and apply methodologically refined measures of the economic cost of road traffic crashes and casualties (The Department of Transport, 2004).

Furthermore, various studies that investigated contributors to road traffic crashes were conducted by the civil society agency that administers the *Arrive Alive* educational programme. The *Arrive Alive* studies *inter alia* identified illegal vehicle speed as a key contributor to road traffic fatalities (*Arrive Alive*, 2018; Ratau, 2008). Another example is the earlier mentioned 2005 in-depth multi-method study of the contribution of vehicle speed to road traffic crashes by the RTMC (Road Traffic Management Corporation, 2005). Like the above-mentioned *Arrive Alive* studies, the 2005 RTMC research (Road Traffic Management Corporation, 2005) found that speed was a key contributor to road traffic crashes and related road traffic fatality rates (Road Traffic Management Corporation, 2005).

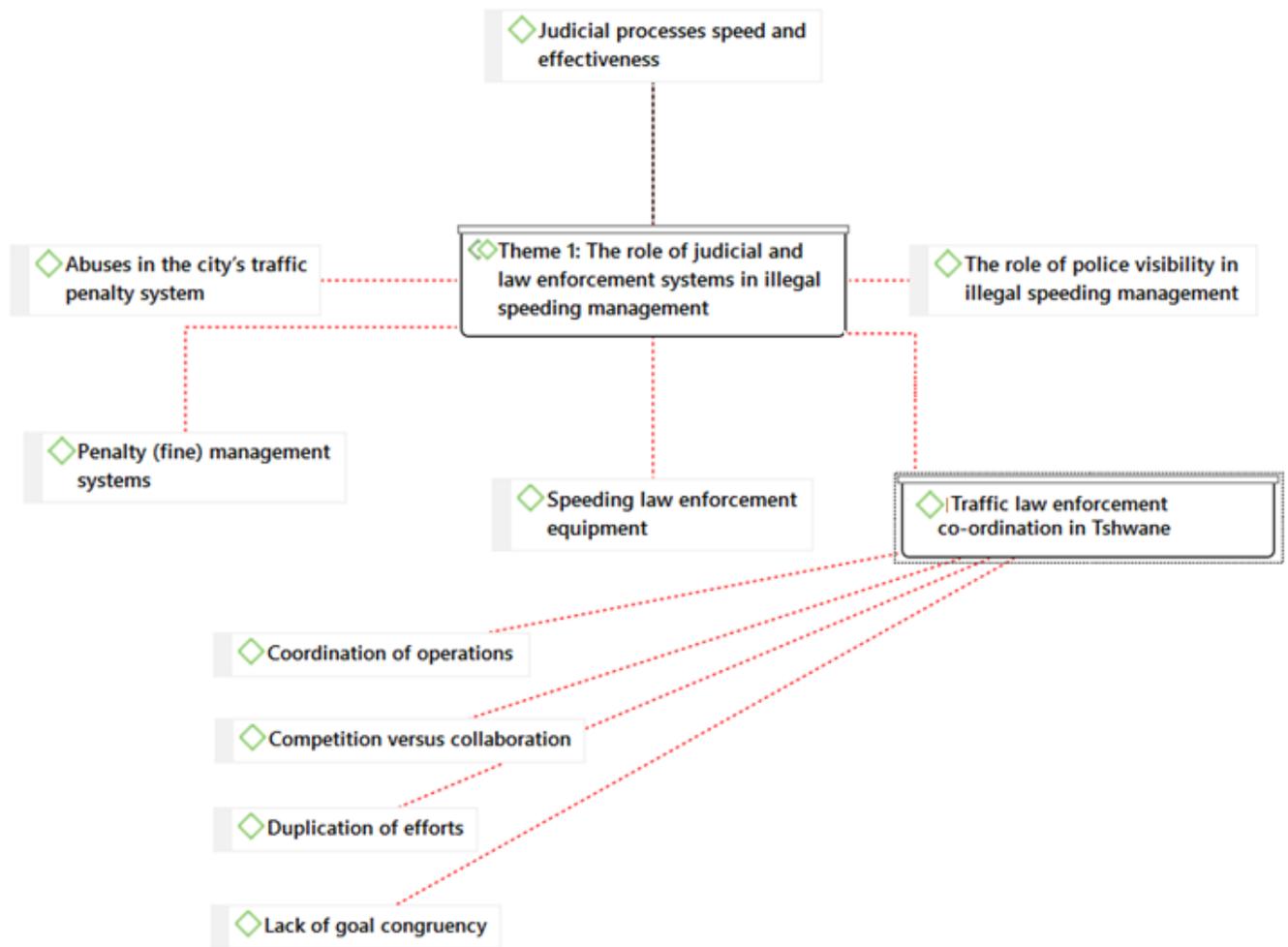
Methodology

This study adopted a qualitative research method. A sample of 29 respondents were drawn from the City of Tshwane. These respondents were selected through a purposive sampling technique. The study also adopted a phenomenological research design with the aim of understanding the issues of interest from the respondents' lived experiences. A semi-structured interview technique was used to collect data which was analysed using thematic analysis with the aid of Atlas.ti version 8. Axial coding was applied to connect various themes and subthemes into constructs that could answer the study research questions.

Results

The following themes were generated after initial coding and analyses using Atlas.ti. analytical software for qualitative research analysis. Codes were assigned after preliminary review of the data to establish the dominant themes. The following identified themes are presented below:

The role of judicial and law enforcement systems in illegal speeding management



Source: Researcher's own conceptualisation

Judicial processes' speed management effectiveness

The judicial system had an important role to play in the quick prosecution of speeding offences perpetrators. There were several concerns among the interviewees that the judicial system was neither expeditious nor supportive when it came to road offences.

Generally, the judicial, as argued by some interviewees did not take speeding offences as seriously as other crimes and offences brought to it. This view is exemplified in Interviewee 2's statement below:

“...magistrate courts if also can flex their muscles by not dragging the drink and driving cases when comes to court rules they should speed up the process of charging the guilt part irrespectively of any offensive driving cases e.g. drink driving” (Interview 2, August 2021).

Interviewees 13 and 29 also express a similar sentiment but adds that it was not only expeditiousness that was needed from the courts but effectiveness. This meant that due processes that deliver justice were also needed:

“quick and effective process through the judicial system when perpetrators are brought to court” (Interview 13, August, 2021)

“(it is) necessary quick and effective process through the judicial system when perpetrators are brought to court” (Interview 29, August, 2021).

Thus, bringing offenders to supportive, quick-acting and effective courts is viewed as part of the solution to the speeding problem in Tshwane.

The role of police visibility in illegal speeding management

Police visibility was discussed as an important over speeding preventative mechanism in Tshwane. Would-be offenders are generally fearful of being arrested by traffic officers and this prevents them from speeding. Thus, almost all the interviews acknowledged police presence as an effective speeding deterrent that also reduces the probability of road crashes on patrolled roads:

“Increased police visibility in identified problematic areas, the employment of more police officers” (Interview 3, August, 2021)

“Highly visible policing and promptly taking necessary preventative action” (Interview 13, August, 2021)

As suggested in the above statement by Interviewee 13 and in the views of several other interviewees, heavy police visibility is not easy to attain owing to the need for a lot of officers on the ground. Thus “Poorly visible patrols on our roads” (Interview 6, August, 2021) was the current order of the day in Tshwane creating scenarios where speed offenders did not always come into contact with law enforcement. Rectifying was seen as an additive solution towards speeding and road crashes but this would, therefore “entail proper deployment of resources in hotspot areas” (Interview 29, August, 2021). The other proponents of the importance of increased police speed in speed management were Interviewee 7, Interviewee 23 and Interviewee 28.

Speeding law enforcement equipment

Traffic officers relied on the use of technological devices and equipment in the detection and prosecution of speeding offences. This equipment included speed detectors which needed to be up-to-date with current technologies. The challenge that traffic law enforcement officers faced was that some of the equipment they used was outdated and old and therefore not able to effectively assist in speed control management.

Interviewee 13, therefore, complained of “Outdated speed checking equipment” as well as incorrect equipment while Interviewee 3 recommended “Investing in modern equipment” as a solution to this challenge. In addition, some units did not even have the equipment to start with as outlined by Interviewee 4 who pointed out that the “Lack of equipment in the traffic departments” hampered speed management operations.

I29 explained that the status quo of automatic speed detection consisted of:

“Efficient capturing of images downloaded from speed enforcement equipment and posted to offenders timeously” (Interview 13, August, 2021)

This reduced manual intervention and enhanced expediency in dealing with offenders. Speed measurement equipment was also discussed as important in speed management in Tshwane by Interviewee 4 and Interviewee 6. The sample also discussed the general shortage of policing vehicles as important resources in traffic law enforcement. This also reduced both preventative and reactive illegal speeding management in Tshwane.

Penalty (fine) management systems

In addition to discussing the challenges in the preventative speed management systems, the interviewees talked about the weaknesses in the penal systems. Once one was detected to have committed a speeding offence, there were no guarantees that the system would follow through in the administration of an appropriate penalty. As Interviewee 18 stated:

“Corruption most officers not arresting offenders but taking bribes. Failure of the management system, no proper system to ensure that all drivers who have committed an offence are brought to book” (Interview 18, August, 2021)

This poor management system, as noted above, created opportunities for corrupt traffic officials who then ensure that those who paid bribes never faced the full wrath of the law. While there were mechanisms that recorded offenders for fining purposes, there was no system that guaranteed that such fines are paid:

“The speeding fine enforcement system is in place as the authority issue a large number of fines for speeding but the offender most of the time goes unpunished as they ignore them, therefore, it makes authority to be incompetent as nothing is done” (Interview 26, August, 2021)

This weakened the speed management process that among other penalty measures relied on fines to deter speeding. Thus, Interviewee 3 commented on the need for a system that effectively *“Follows up on fines and compliance”*. Even when fines are paid, there are views that these are not deterrent enough first because one can choose to pay them whenever they want and secondly because of their lack of harshness. Interviewee 3 talked of spot fines as a solution to this situation:

“Procurement of high-tech cameras and arresting offenders on the spot or spot fine payments” (Interview 3, August, 2021).

Several interviewees including Interviewee 4, Interviewee 7, Interviewee 15, Interviewee 18 and Interviewee 28 also shared similar sentiments on the role of the penalty system in speed law enforcement in Tshwane.

Abuses in the city’s traffic penalty system

However, there were two broad views on whether the interviewees agreed that the speed management system is utilised to generate revenue in Tshwane in one view, the interviewees agreed that the penalty system was abused to raise revenue for the city as exemplified in the statement below:

“Yes, the speed management system is used to generate revenue for Tshwane” (Interview 18, August, 2021)

Interviewee 5 also asserted that the process might be losing its strength as a penalty for deterring motorists and becoming an income-generation scheme for the city. Interviewee 5, Interviewee 6, Interviewee 7, and Interviewee 12 also agreed. On the other some interviewees disagreed that the system was abused for revenue generation:

“No, it is meant to curb the lawlessness and reduce road accidents” (Interview 19, August, 2021)

“No it’s meant to manage speed on our public roads to ensure the specific speed is driven on a specific road and at the end reduce fatalities on our roads” (Interview 24, August, 2021)

A few more interviews thought that the system did produce some prosecutions indicating that it did not exist purely as the city’s revenue-generation project. Interviewee 8, Interviewee 10, Interviewee 11, and Interviewee 13 among others shared this view.

Performance of Traffic Law Enforcement Agents in Courts

The judicial matters discussed above are also strongly tied to the perceived performances of traffic law enforcement agents when they appeared in court. There were views that traffic law enforcers did not always succeed in proving the guilt of speed offenders. This was attributed to various factors among them poor legal training among officers.

Traffic officers needed proper training in the investigation and presentation of cases in courts to get positive verdicts. Because of *“Not receiving positive verdicts against offenders in court” (Interview 19, August, 2021)* some traffic officers felt demoralised to pursue offenders through judicial processes. Interviewee 24, therefore, recommends the system to *“Pay traffic officers and train them to do their job (not lose cases at court of law”*. In I24’s view, it was the prosecutors who also needed traffic law training for them to effectively prosecute these kinds of offences:

“train prosecutors particularly for traffic matters” (Interview 24, August, 2021)

Beyond court appearances, it was also important for the judicial system and the traffic law enforcement agencies to work together to establish a common understanding of speeding offences considering the multitude of factors that cause these:

“A number of crashes are caused by different factors... Traffic enforcement must work closely with the judicial justice system.” (Interview 13, August, 2021)

Other interviewees who strongly believed in the importance of the judiciary in speeding offences management included Interviewee 19, Interviewee 16, Interviewee 29 and Interviewee 26. Interviewee 19 raised a unique point that traffic officers sometimes found themselves at the mercy of the courts for simply bringing offenders to book stating that:

“Because we don’t have strict measures in dealing with the offenders you can arrest an offender but as an officer, you will be charged for doing your job, because offenders have more rights than officers” (Interview 19, August, 2021).

In a system where the offender has more rights than the enforcer (as opined by Interviewee 19), some traffic officers also saw the despair of advancing cases towards the judicial system. Interviewee 19 however suggests that lack of common protocol in speeding and traffic law enforcement created such uncertainties where one only found out in court that they applied wrong procedures.

Corruption and bribery in law enforcement

The interviewees boldly discussed the role that corruption among traffic officers and the traffic regulation system played in Tshwane's increasing speeding and road crashes problems. Corruption occurred along a wide-spanning chain that started with the issuance of driver's licences and vehicle roadworthiness certificates as stated by Interviewee 25 below:

"Corruption activities such buying of driving licenses, registration of not road worthy vehicles" (Interview 25, August, 2021).

Thus, unworthy vehicles and untrained drivers are unleashed on Tshwane's roads. Thus, in Interviewee 13's view is a challenge that can be offset by streamlining the driving licence acquisition process to close loopholes for corruption: *"The process of obtaining a driving license needs to be reviewed and streamlined to decrease corruption in the system" (Interview 13, August, 2021)*

Even with such changes, Interviewee 13 notes that this will only decrease rather than eradicate corruption suggesting the entrenched nature of graft in the driving licences and roadworthiness certificate issuance systems.

Corruption also occurred at the policing level of speed law enforcement. At this level, the main identified problem was *"bribery" (Interview 6, August, 2021)*. This occurred as arrested offenders pay for their freedom. Interviewee 21 described it as a severely rampant problem involving *"most" of the traffic law enforcement officers who were "not arresting offenders but taking bribes."* (Interview 21, August, 2021).

The third level at which corruption occurred was in the justice system when offenders had been brought to book. Thus Interviewee 2 believed that fighting corruption needed to include both the enforcement and the justice officers – *"get rid of corruption within police officers and justice" (Interview 2, August, 2021)*.

Generally, corruption was seen as a crippling vice that adversely affected all other plans and actions to fight speeding and reduce road crashes. It hampered preventative speeding management as:

"Speedsters speed knowing that they will be let off the hook only if they can bribe their way out" (Interview 4, August, 2021)

Interviewee 26 emphasises its far-reaching effects on traffic management and effectiveness systems:

"and again corruption or bribery is taking place to make all this mechanism to be ineffective" (Interview 26, August, 2021)

Corruption was a common theme discussed by all the interviewees who participated in the study. However, the sample attributed corruption to various reasons including low staff morale. These reasons are discussed under different themes.

Law enforcement concerns: (judicial systems)

Noting that a major concern among law enforcement was that the judicial system was not expeditious in processing speeding offences brought before it, several interviewees said that a supportive judicial system was key to the success of any speed management system.

These included Interviewee 13 who stated that a *"Judiciary system that supports the officers in their quest"* could result in improved prosecution and officer motivation to bring offenders to justice. Under a supportive system:

"High visible policing, prompt action being taken where necessary quick and effective process through the judicial system when perpetrators are brought to court" (Interview 14, August, 2021)

Such a system can also have a powerful deterrent effect by *"sending a message to other road users" (Interview 16, August, 2021)* that they will be effectively prosecuted. Thus, even under high police visibility and advanced technology use, a slow-acting judicial system can stifle the efficient operation of law enforcement as suggested by Interviewee 14 above.

Law enforcement: personnel management

Law enforcement personnel, specifically traffic officers were a critical component of an effective speed management system based on the views of several interviewees including Interviewee 1, Interviewee 17, Interviewee 9, Interviewee 15, Interviewee 19 and Interviewee 28. However certain qualities were required among law enforcement personnel these being moral uprightness to resist corruption, motivation to do one's job, expertise and knowledge emanating

from good training and general psychological readiness to do the prescribed job. Most of the characteristics were mentioned haphazardly across the sample Interviewee 7's and Interviewee 13's outline captures most of them:

“Motivated officers, Well resourced -remunerated, Psychological debriefed officers, Subject matter experts”
(Interview 7, August, 2021)

“Well-trained officers that's motivated and incorruptible”
(Interview 13, August, 2021)

Some like Interviewee 3 also believed that *“Strengthening human personnel”* or increasing the number of traffic officers was also an important element in achieving a good speed management system. Going by the above views, the system must therefore consist of high-quality members in adequate numbers.

Discussion

The study's survey participants were on average neutral about the effectiveness of some administrative measures on the management of illegal speeding and road crashes. This applied to the views that (AARTO), new law enforcement strategies and additional equipment can help address illegal vehicle speed. The quantitative study focused on the weaknesses in law enforcement coordination among the Tshwane Metropolitan Police Department (TMPD) traffic division, the Gauteng Traffic Police and the National Traffic Police. The issue of police corruption, low morale and competence issues also affected law enforcement.

The participants agreed on stricter regulations and law enforcement were required on particular roads and the usefulness of On-spot speed arrest for the reduction of illegal vehicle speed on the road. In general, stiffer penalty regimes were advocated as a means of controlling the speeding problem.

Additionally, competence issues including presenting speeding infringements in courts also affected traffic law enforcement officer's ability to effectively bring offenders to book. Another human resources vice that was commonly discussed was corruption which defeated most traffic law enforcement strategies.

The role of the judicial system is also discussed in the data analysis as well as in the above model. A highly responsive judicial system is needed to increase prosecution efficiency. This, as argued would deter speeding infringements and would also motivate law enforcement to bring offenders before the courts. Also, effective penalties handed over by both the judicial and traffic law enforcement systems were needed to deter speeding.

Views from a South Africa study by du Plessis, Jansen and Siebrit (2020:6) strongly resonate with some of this study's findings on law enforcement and its administration, particularly on the role of the judicial system in curbing illegal speeding. The study concurred that the judicial system was not very keen on handling traffic offences mainly because of its voluminous nature. It was theorised by Olutola (2012) that delinquencies will continue to rise if society continue to rely majorly on the criminal justice system for delinquencies prevention. Magistrates were more likely to strike off such cases or cause very long delays which resulted in some speeding and traffic offence suspense going unpunished. Another related finding that du Plessis, Jansen and Siebrit (2020:4) made was that corruption also affected the judicial system and this resulted in offenders escaping from the law.

A similar view was expressed in the interviews. With regards to whether AARTO would improve the traffic offence prosecution environment, (du Plessis, Jansen and Siebrit, 2020:4) believe that with the right level of political will, it would. In their view, it would free the courts of the burden of adjudication on traffic matters. A traffic-specialised prosecution approach would deliver justice more efficiently and this to an extent may deter non-compliance with traffic regulations. This study also made a similar finding that AARTO could generally improve the traffic offence regulation environment leading to among other things the reduction of illegal speeding offences and road crashes. Like du Plessis, Jansen and Siebrit (2020:4) one interviewee decried the continued delay in the implementation of AARTO. Nonetheless, in this study, some participants also believed that AARTO was also problematic in that it would enable offenders to pay-of fines instead of facing the full wrath of the law under the current Criminal Procedures Act.

This was not necessarily a common view but was quite substantial.

The study's interviewees highlighted the significance of visible traffic policing in curbing illegal speeding. Visible traffic policing served had a preventative effect on illegal speeding as speedsters were less likely to break laws in the presence of law enforcement agents. Also, visible traffic policing served as a punitive process for those caught over speeding. Thus, it had both a pro-active and reactive aspect. The proactive and reactive significance of visible policing is captured in a study by Geldenhuys (2018). Geldenhuys (2018) saw a direct link between visible policing and road regulation infringements that included illegal speeding.

The challenge was however that even with the realised benefits of visible traffic policing, resource issues often resulted in the limited presence of adequate law enforcement units on public roads. Policing units were often visible during

peak hours disappearing at night times making these times high-traffic risk periods (Geldenhuys, 2018). Similarly, Interviewee 18 and Interviewee 19 in the qualitative study highlighted that night-time visible policing gaps increased illegal speeding risks and consequentially the risks of road crashes.

Another matter that was discussed in this study's findings and was captured as part of the proposed law enforcement model was the penalty system. In the quantitative study, it emerged that most participants believed that stiffer penalties for road infringement offenders will help combat the occurrence of illegal vehicle speed with some agreeing that the confiscation of vehicles for repeating roads infringements offenders can help in achieving the same end. At the same time, there were views that drivers were able to escape the penalty system due to corruption and administrative inefficiencies. These views are all shared by du Plessis, Jansen and Siebrit, (2020:4) who believed that weak infringement fine follow-ups disempowered the role of fines in curbing illegal speeding. They (du Plessis, Jansen and Siebrit 2020:4) however believed that the non-payment of fines was reflective of a general non-payment culture that existed in the country. Such a view was not presented in this study. (Ratau, 2008) believed that the penalty system could improve under AARTO, a view that was also highlighted in the study.

This study found that data collection was essential for the development of targeted road safety measures by law enforcement. This view is also strongly shared by Venter and Fourie, (2018:64) who note that data from the RTMC was critical in road safety strategy formulation and evaluation. They however decry the non-reliability of data on road crashes. Like this study, Venter and Fourie share the view that administrative inefficiencies in road law and strategy management systems eventually adversely affected road crashes. Integrated data management systems that helped traffic law enforcement agencies to present data and analyse included geographical information systems (GIS) (Frischer & Heatlie, 2001:55-66; Drake, 1991:29-32). Closely associated with data management was the enhanced use of technology in both preventative and reactive law enforcement. In the interviews, speed management technologies ranged from common closed-circuit television (CCTV) to advanced fourth-industrial revolution violation detection systems. In the literature, such technologies were also discussed as effective in curbing illegal speeding. Mynhardt, (2013, p. 64-65), Mackey and Roodt, (2002, p. 8) and Venter, (2009, p. 417-418) highlight the importance of technical, human and financial resources in the effect of traffic law enforcement. Their views are mimicked by several interviewees who believed that one of the key challenges of traffic law enforcement in Tshwane was related to resource challenges.

The resources that were identified as being in short supply included enough manpower, and adequate technical resources like police vehicles and illegal speed detection systems. Thus any effective traffic law enforcement model that would effectively manage illegal speeding and reduce road crashes required adequate, efficiently integrated resources.

Conclusions and recommendations

This study recommends improving the penalty administration capacity of the traffic law enforcement system by availing more strategic, human, and technical resources. In addition, severe penalties should be imposed on traffic fine defaulters to ensure that violators are discouraged from ignoring penalties. A coordinated unit that focuses on following up on unpaid fines across the local, provincial, and national law enforcement spheres could enhance the current penalty system's effectiveness. These challenges shared information through common information systems or interfacing the different systems uses across the departments.

The implementation of AARTO is recommended. This is based on the findings that the judicial systems found road offences overwhelming and never gave them priority. This resulted in illegal speeding offenders escaping punishment from the law. Thus, AARTO could also motivate traffic law enforcement officers who have been demoralised by the perceived laxity of the mainstream judicial system in prosecuting and penalising traffic offences. Under AARTO, the Road Traffic Infringement Agency (RTIA) would coordinate the penalisation of traffic infringements as detected by all traffic law enforcement agencies (Arrive Alive, 2021:1). AARTO could also help to remove incompetent drivers off the roads forcing them to retain and acquire important lifesaving road skills in the process. This study concluded that there is a need for improvement in the efficiency and effectiveness of the judiciary in prosecuting offenders. A traffic-specialised prosecution approach would deliver justice more efficiently and this to an extent may deter non-compliance with traffic regulations.

Also limited policing resources, inefficient penal systems and a slow-reacting judicial system affected the motivation and responsiveness of the law enforcement system to speeding infringements that were mainly responsible for road crashes.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respects to the research, authorship, and/or publication of this article.

Ethics

Ethical standards were upheld in line with TUT stipulated ethical guidelines.

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