

# Camera System Deployment for Speeding Control in Australia

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## **ABSTRACT**

In Australia, the Auditor-General plays the role of checking on system fiscal efficiency, performance and effective communications between safety professionals and the public road users. The focus of this paper is to evaluate the possibility of public approval of the information that is to be released, e.g. camera strategic initiatives assessed by through mail-out questionnaires. Two visual-and- policy related attributes were investigated in these questionnaires. Each attribute had 5 initiatives. A multi-logistic regression is performed on the approval level of the drivers for the strategic initiative of running a speed-awareness course. This initiative is determined to be statistically significant using independent variables age, years of experience, status, gender, and the driver environment. Our analysis shows that the driver environment/background is found to be a significant independent variable for approving speed awareness courses. The road users from non-industrial areas are more likely to approve the idea of speed awareness courses than road users from industrial areas. They also welcome tougher demerit rules and the police enforcement. Our study suggests the speed awareness course, an educational initiative, should incorporate the tougher demerit rules to change the repetitive offender's driving behaviour. It is foreseeable that once these drivers are enrolled into the course, safer driving practices would be achieved for mitigating dangers, risk and trauma as the result of speeding. Our study may benefit professionals involved with improving traffic safety such as those in Asia, Africa, the Middle East and the Arab gulf countries particularly the kingdom of Saudi Arabia where a high number of fatalities and serious injuries involved speeding. Our study confirms that positive, transparent and satisfying initiative should be executed with care to maintain sustainable and safer roads for enhancing national partnership between road users and authorities.

## **1. INTRODUCTION**

Speeding has been a long standing issue for road safety in Australia and elsewhere. In New South Wales (NSW), speeding is a contributing factor to around 40 per cent of road deaths reported by [1]. In South Australia (SA), the Department of Transport

(DOT), indicated that in the 2008–2010 period, speeding was the main factor for about 37% of fatal crashes in [2]. According to the office of road safety in WA (Western Australia), 40 to 45% of drivers regularly drive above the posted speed limit. A report by the World Health Organisation, found that speed of motor vehicles was at the core of the road injury problem and speed had been an important factor in increasing crash risks [3].

A review of international speed limits, in contrast to other OECD countries, found that Australia's posted speed limits tended to be higher than what had been practiced elsewhere, including in Europe and North America [4]. The speed-related concerns arise because drivers are still considering speeding as a socially acceptable act [5–8]. Because of these reasons, authorities have introduced camera system to deter drivers and control their aggressive driving behaviour in order to enforce the posted speed limits for various functional roadway facilities. A crucial part of deploying this speed camera strategy involves increasing community awareness and participation as discussed elsewhere [1]. Many initiatives considering feedbacks and opinions from communities have been implemented in different Australian states since the beginning of the 1980's. In Western Australia, Road Safety Council concluded that closing the gap on understanding road safety between public attitudes and the science was an important but tough task to accomplish [9].

In this study, the focus of our discussions will primarily be on Auditor-General's (A–G) reports that have dealt with road safety and speeding and other associate initiatives executed by different establishments. Particular attention will be given to the level of approval from road users on these reports and initiatives. A study was initiated to address the automated speed enforcement of the A–G reports in the Victorian and the NSW territories [10]. We extend in this paper the task to take into account of all A–G reports from all states dealing with road safety. The sustainability of deploying speed camera in various Australia jurisdictions has become increasingly challenging because the execution must meet the user attitudes, emotion and behaviours for the existing well diversified road user population. This challenge in the execution process may call for assistance or intervention from higher level authorities.

The Auditor-General produces independent, professional state-of-the-art reports on speed enforcement that are highly regarded by the community in Australia. The A–G reports involved 7 states in Australia as shown in Table-1 below. Details collected on Table1, contain 13 verifiable references with information that can be extracted without further ado for constructing the questionnaires. Additional information is extracted from the Royal Automobile Club of Queensland (RACQ) comments for Queensland (QLD) and road safety ministerial comments for SA. Subsequently, ten item questionnaires were generated from the collected information. We have further looked into a report dealing with the public employment and the hiring of contractors to manage camera system in Queensland [24]. The purpose of our study is to smooth out the communication gap for the key initiatives proposed by various jurisdictions in Australia so that good drivers would likely approve and prioritise them as safety countermeasures.

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