ENCOURAGING THE PURCHASE OF SAFER VEHICLES - PART B

IMPEDIMENTS TO GREATER UPTAKE OF SAFETY FEATURES

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Encouraging the Purchase of Safer Vehicles – Impediments to Greater Uptake of Safety Features

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Abstract

Road safety research shows that there could be substantial benefits arising from encouraging the purchase of safer vehicles. Fleet and private vehicle buyers need to be targeted in such strategies. To assist in the development of effective strategies an analysis of impediments to the uptake of these safety features was undertaken.

Lack of consumer awareness of the availability and effectiveness of safety issue is perhaps the greatest obstacle but there are also numerous impediments to a safety-aware consumer obtaining the level of safety they desire.

Keywords

PASSENGER VEHICLE, OCCUPANT, INJURIES, AIRBAG, CRASHWORTHINESS

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Executive Summary

Methods of encouraging the purchase of safer new vehicles are being considered. To assist in this task an analysis has been conducted of the availability of safety features on new vehicles, the attitude of car purchasers towards safety and the degree to which motor dealers go to promote these features. The results of the analysis are set out in this report.

A literature review revealed that for fleet buyers:

- Safety considerations may influence which level of car is purchased within a manufacturer's range (or which options are selected). Vehicle selection is generally a choice of the safest possible car within reasonably tight constraints, rather than the safest possible car on the market.
- The move to maximise resale values has led to consideration of the resale implications of some safety features (this can possibly encourage airbag fitting). However, there is a general perception that adding safety options to base models does not achieve full resale value in the used car market so *fleets generally avoid adding options*. Higher level models with more standard safety features may achieve better returns.
- There is a general emphasis on counting accidents and repair costs rather than injuries. Many organisations do not appear to count the hidden costs of crashes (eg lost time and productivity) which can be four to twenty times the accountable costs.
- In the USA and Canada, fleet managers rate safety among the top factors when selecting vehicles. It is said to be high in Australia but there are several "excuses" for not making it so.
- In Australia there is some confusion or uncertainty as to the actual costbenefit trade off of various options.
- Management time and resources are likely to be the main barriers to action to improve fleet safety. Tax incentives for vehicles with safety features and greater awareness of (and commitment to) safety issues by senior management would assist.
- The majority (54% of all and 70% of the medium/large car segment) of the new vehicle market in Australia is purchased initially for commercial purposes. Most of these will become part of the general Australian vehicle pool within 2-3 years.
- Fleet vehicles typically travel about three times the distance of the average private vehicle.
- In Australia, road crashes are the most common cause of work-related death, injury and absence from work. They account for nearly 50% of all work-related fatalities.

Difficulties were encountered in gathering safety-related information from fleet managers and motor dealers - many were "too busy" to respond. In addition the

Federal Chamber of Automotive Industries declined a request to assist with a survey of vehicle manufacturers.

Motor dealers who responded advised that there are usually impediments if safety features are ordered as an optional accessory. In addition to the extra cost, there is frequently a much longer delivery time for a vehicle with options. In these cases customers are encouraged to consider a variant with higher specifications. This might cost more than an optioned up vehicle but delivery times are usually much better with the higher-specified models.

As an alternative to surveying dealers and manufacturers, an analysis of the safety content of dealer newspaper advertisements (in Perth and Sydney) and manufacturer's brochures was conducted.

In order to encourage the purchase of safer vehicles it is recommended that:

- The results of consumer programs such as NCAP and Used Car Safety Ratings be better promoted. The fact that there is a large difference in the crashworthiness of similarly-priced vehicles should be stressed.
- Consumers (and car salespeople) be provided with an indication of the difference in crash outcomes that some safety features can be expected to produce. It is noted that ANCAP generally only tests and rates the least equipped model in a range and consumers have no indication of the performance of better-equipped variants. There may be a case for NCAP testing some higher equipped variants from time to time. Similarly, Used Car Safety Ratings usually consolidate the results for all variants into one rating for the model.
- Safety campaigns target woman and stress family safety (child occupants and teenage drivers). Campaigns should also target commercial vehicle buyers and stress the inferior safety of some of these vehicles.
- Senior managers in corporations be made aware of the hidden costs of accidents and the benefits of specifying safer vehicles. "Best practice" amongst fleets should be promoted, as should occupational health and safety issues.
- Workshops or other special sessions should be provided for fleet managers so that they can get away from day to day problems and have time to absorb the safety message.
- Occupational health and safety personnel should give much greater attention to work-related road crashes. Reporting systems should be reviewed to ensure that all serious road crashes are covered.
- Consideration be given to tax concessions or other incentives for priority safety features or above-average crashworthiness. FBT provisions that encourage the purchase of (possibly) less-safe commercial vehicles should be reviewed.
- Address the conflicting priorities in the insurance industry so that greater attention is given to injury and less to repair costs.

 Consideration be given to ways of discouraging the advertising and promoting of the least equipped variants for a model - dealers are extremely sensitive to advertised price. A voluntary industry agreement to only advertise the price for models with minimum safety features (or a "safety pack") is preferred but would probably meet with industry resistance.

There is scope for much greater awareness about vehicle safety and the benefits of safer vehicles amongst private and fleet car buyers, senior management of corporations, car salespeople and occupational health and safety professionals.

Introduction

There is a wide range of safety features and products available for motor vehicles that can assist in avoiding accidents or making them less severe. Some of these features are only available on luxury vehicles and these vehicles tend to do well in crashworthiness ratings based on real world crashes. The Swedish insurance organisation Folksam has estimated that at least 30% of fatal and serious injuries could be avoided if the average crashworthiness of the fleet was raised to that of the best vehicles currently available.

There would be benefits in Australia arising from making some of these safety features more widely available (that is, encouraging vehicle manufacturers to make them available as standard or optional equipment) and encouraging vehicle purchasers to buy vehicles with these features.

In addition, there is now considerable information about the relative safety of vehicle models available from the New Car Assessment Program (NCAP) and the Used Car Safety Rating (UCSR) program.

An information package that focuses on safety issues will assist in influencing the purchase of safer new vehicles, particularly fleets. To assist in the preparation of such a package an analysis has been conducted of the availability of safety features on new vehicles and the degree to which motor dealers go to promote these features. The results of the analysis are set out in this report.

The project is an initiative of the Road Safety Council Research Program (RSCRP) administered by the Research Advisory Group (RAG).

Sources of data

A review of literature associated with the purchase of safer vehicles, particularly by fleets, was undertaken. The Project Manager, Fleet Safety, Roads and Traffic Authority of NSW provided assistance with sources of research reports.

Glass's Guide to Vehicle Models in Australia (October 2001) was used to establish the safety features available for new vehicles available in Australia.

The displays at the 2001 Sydney Motor Show were observed and manufacturer's brochures for a large range of vehicle models were obtained. These were supplemented by other brochures obtained directly from dealers and some internet websites. The results were compared with known features of vehicles, as derived from Glass's Guide. This gave an indication of cases where manufacturers failed to promote worthwhile safety features.

Motoring supplements for the Sydney Morning Herald (13 Apr 02), Manly Daily (20 Apr 02, 18 May 02, 25 May 02) and West Australian (17 Apr 02, 27 Apr 02) were examined for promotion of safety features. These newspapers were also used to prepare a database for a proposed survey of dealers.

Methodology

Literature review

Reports and Internet sites associated with the purchase of safer vehicles were reviewed. Findings are set out in the following section.

Analysis of Brochures

Manufacturer's brochures for most popular models of passenger vehicle available in Australia were analysed for safety content. The brochures were obtained from the Sydney Motor Show (October 2001) and directly from motor dealers (Sydney Northern Beaches).

A database was prepared with one record for each vehicle model. An assessment was made of the degree to which certain types of safety features were promoted in the brochure. An assessment was also made of the overall promotion of safety within the brochure. Rating assigned were:

- 4 High promotion of safety. The safety feature was very prominent and well explained (for example, by a diagram)
- 3 Good. The safety feature was prominent but not well explained.
- 2 Moderate: The safety feature was listed in a table
- 1 Poor. Mention of the safety feature was buried in the text and difficult to find
- 0 No mention of safety feature (usually means "not available")

The proportion of the brochure taken up by safety was also analysed. This may be considered a surrogate measure of the importance of safety.

Dealer consultations

A survey form was prepared to obtain information from motor dealers. It covered availability of key safety features, general promotion of safety of vehicles offered for sale and various ideas for improving the uptake of safety features (see Appendix A).

25 motor dealers from Perth and Sydney were identified, mainly from newspaper advertisements. The selected dealers covered all popular brands of passenger vehicle and a range of socio-economic areas.

Each dealer was initially contacted by email or facsimile, seeking participation in a survey. The emails were followed up by telephone calls and, as a result, some were sent facsimiles or further emails with the survey form. In the case of several Sydney dealers, arrangements were made to visit the showrooms and discuss the issues in person.

As a backup to the survey, newspaper advertisements by dealers were also analysed.

Consultation with Manufacturing Industry

It was intended that a meeting would be arranged with the Federal Chamber of Automotive Industries (FCAI) to discuss the availability and promotion of safety features, including feedback from motor dealers. Subsequently the Chief Engineer of the FCAI advised that the organisation would not be able to assist the project and so no consultation took place.

Consultation with fleet operators and other stakeholders

Based on advice from contacts in the fleet safety field, several fleet operators were contacted for information about their purchasing policies and impediments to choosing safer vehicles. This included government and non-government fleets. Telephone discussions were also held with union and occupational health and safety personnel.

Results

Literature survey

MUARC 2000

A comprehensive review of fleet safety was conducted by Monash University in 2000 (Haworth, Tingvall and Kowadlo, 2000). This looked at all aspects of fleet safety including selection of safer vehicles, driver training and education, incentives and corporate safety programs. Important findings regarding vehicle selection were:

- "Safety considerations may influence which level of car is purchased within a manufacturer's range (or which options are selected). Vehicle selection is generally a choice of the safest possible car within reasonably tight constraints, rather than the safest possible car on the market."
- "The Swedish approach to vehicle safety in fleets focuses more on the rated crashworthiness of vehicles, rather than a specific list of safety features"
- "The move to maximise resale values has led to ... consideration of the resale implications of some safety features (this can possibly encourage airbag fitting)."
- "In fleet management there is a general emphasis on counting accidents and repair costs rather than injuries... Many organisations do not appear to count the hidden costs of crashes (eg lost time and productivity)".
- [In the USA] "The average accident rate for a fleet is 20% over a year. Accident costs typically comprise between 13-15% of a fleet's total spending."
- [In the UK] "..company drivers typically had 50% more accidents than private drivers...driving culture within an organisation may stress business needs, such as delivery quotas, before safety."

- [In the UK] "Speeding was common...a desire to arrive at meetings on time...The overall deterrent of a crash may not be as high...as the company will pay for costs such as repairs and lost time."
- '...accident avoidance performance of different cars has not been studied very extensively...Intelligent Speed Adaption systems (ISA) and alcohol interlocks have been mentioned as items that have the potential to have significant safety benefits...Seat belt reminders would affect 20% of occupant fatalities."
- [from real world crash data] "In Sweden it has been shown that the best available car model is in the order of 60% better than the average car population and at least 30% better than the average new car of the same size [mass]."
- [In the USA and Canada] "..fleet managers rate safety among the top factors when selecting vehicles...In most cases fleet buyers rank the safety record just behind its initial cost, suitability for a particular job and depreciation/resale value."
- "There appears to be *emphasis on crash prevention rather than injury prevention*. This is understandable given that the very large majority of fleet vehicle crashes involve vehicle damage but no injury."
- [A 1992 Australian study found] "The main drivers of fleet cars were more willing to pay for safety features than private buyers". 90% of short-term renters were willing to pay extra for a vehicle with better safety features.
- "Australian fleet buyers have stated they will purchase [daytime running lights] once it is proved that it works."
- [in Sweden, the major insurance company] "Folksam has developed environmental and safety requirements that must be met by the rental companies with which it forms agreements...at least 20% safer than the average car [for real world crashes] and earns three or four stars from EuroNCAP crash tests.
- [The University of South Australia requires that] "...all cars should have ABS, airbags and independent rear suspension...Vehicles are fitted with Logmaster that records speed, trip duration.."
- [According to the National Fleet Sales Manager of Holden, in the mid 1990s in Australia] "...the fleet safety choice was between ABS or airbags. The general balance was that ABS was preferable because it avoided the crash... Today there is some confusion or uncertainty as to the actual cost-benefit trade off of various options. Fleets no longer have to consider only ABS and driver airbag but now compare vehicles with standard features of passenger and side airbags, seat belt pretensioners and promotion of the invisible safety cell structures... There are a number of fleets that have adopted the policy of specifying the Holden Acclaim.. because it has all or most of the safety features currently available from Holden..". Fleets are not able to specify particular safety features that are not available to private buyers. "There is a general perception that high optioned [base] models do not receive full [resale] value in the used car market...so *fleets generally avoid adding*

options." "The Acclaim does manage to recover more of the value...because of the 'badge' premium."

The MUARC report also discusses the likely benefits of selecting safer vehicles, including estimates of the effectiveness of airbags, ABS and other safety features. These are based on a review of literature. Finally a copy of the MUARC "Policy for purchase and use of vehicles at MUARC" was included as an appendix to the MUARC report. Under that policy Basic requirements for purchased or rented vehicles were:

Required passive safety (occupant protection)

- Highest possible score in consumer tests like NCAP and, if available, real world crashworthiness.
- Dual front airbags
- Side airbags, including head protection, for front seats.
- Three point seat belts for all seats
- Pretensioners for front seat belts.
- Adjustable head restraints for all seats
- Kerb mass in the range 1300 to 1700kg
- Cargo barrier, if a goods vehicle

Desirable passive safety

- Anti-whiplash system
- Seat belt reminder system
- Seat belt load limiters
- Good pedestrian protection, according to NCAP tests.

Required active safety (crash avoidance)

- ABS brakes
- Speed alert system

Desirable active safety

- Intelligent speed adaption
- Alcohol interlock
- Automatic headlights

The report also provided background on the reasons for these requirements.

CARRS-Q Workshop in 2001

Murray (2001) reported on the outcomes of the Workplace Fleet Safety Workshop held in Queensland in March 2001. Key findings concerning vehicle safety were:

- "The full costs of crashes [to a corporation] are four to twenty times the obvious direct costs.'
- "Management time and resources were highlighted as the main barriers to action [to improve fleet safety]."
- [Based on Staysafe 36] "The majority (54% of all and 70% of the medium/large car segment) of the new vehicle market in Australia is purchased initially for commercial purposes. Most of these will become part of the general Australian vehicle pool within 2-3 years."
- "Staysafe 36 identified that fleet vehicles travel about three times the distance of the average private [vehicle].
- "In Australia, road crashes are the most common cause of work-related death, injury and absence from work." They account for nearly 50% of all work-related fatalities. "The cost of work-related traffic injuries is about half a billion dollars per year in Australia."
- In the UK there is a trend towards substantial increases in "excess" on insurance policies. This may mean that repair costs are becoming more important. Another factor is the reduced resale value of a vehicle that has been in a serious crash.
- QFleet (Queensland state government) has a Technical User Group that provides technical support for vehicle purchases, including safety issues. However there is no indication in the report that the Group considers safety performance beyond the minimum required under the Australian Design Rules.
- In a survey conducted at the workshop 71% of participants indicated that "Relevant safety features are considered when selecting vehicles". This ranked third, behind "Vehicle maintenance program" and "Crash reporting processes".

The "barriers" to improved fleet safety were seen as:

- Lack of people resources
- The [inflexible?] current "system"
- Financial incentives, including the lack of tax incentives to specify safer vehicles
- Low priority from management
- Apathy among management, staff and drivers
- Uncertainty about responsibilities within the organisation.

It was acknowledged that these were really a list of excuses for inaction.

Insurance Research Council (USA)

In 1999 the Insurance Research Council (IRC) conducted a public attitude survey that showed "safety was an overwhelming concern of auto consumers" in the USA. Key findings were:

- 80% rated vehicle safety as important to their purchase decisions
- 68% sought at least one type of vehicle safety information before making their selection.
- 54% looked for specific information about safety features such as airbags or ABS.
- 37% sought safety information from salespeople.
- 18% sought safety information from magazines and newspapers
- 17% sought safety information from manufacturers.
- Many SUV (4 wheel drive) buyers were concerned about risk of rollover.
- "It is clear that consumers are very concerned with buying safer cars...but knowing which cars are safer can be hard to judge."

It is not known how this US study would translate to Australian conditions but it does suggest increasing consumer awareness in recent years.

Just-Auto.com

In January 2001 the Internet magazine JUST-AUTO.COM issued a report "The global market for airbags and seatbelts: forecasts to 2010". Key findings were:

- Curtain airbags will feature on 50% of all new cars built in Europe by 2004, 40% in North America and 28% in Japan. Extended deployment times are being looked at to better cope with rollover crashes.
- Meteoric growth of front seatbelt pretensioners in all three major car producing regions, reaching 100% fitment levels by 2010.
- Advanced (eg adaptive and dual deployment) airbags will reach at least 35% (by law) in the US by September 2003 and 100% by 2006 and "delivery prices will stabilise before tumbling as technology improves and volumes soar."
- The global average supply value for automotive safety products has risen by 70% over the last seven years to around US\$230 per car today. Annual growth is expected to be around 5%.
- In Europe the next challenge is a pedestrian friendly car equipped with external airbags. In the US, where fewer pedestrians are hit by cars [per capita!], it's unlikely to become an issue for debate.

ANOP Research Services - Australian NCAP

In 1998 ANOP Research Services conducted market research for ANCAP: "NCAP Crash Test Brochures: Qualitative research into new car buyers' attitudes to car safety and the NCAP brochures. This was an unpublished report. Key findings *in 1998* were:

• Car safety was not a high priority in the decision-making process for new car buyers - many other factors are more top of mind. Price, size, reliability, power, comfort, appearance, [luxury] features were other factors.

- Prior experience was a primary source of information some choose their car simply out of tradition or loyalty. Word of mouth was important, particularly for women and inexperienced buyers. Some men's purchases are influenced by their wife's opinion - especially in regards the "family car".
- Car dealers, despite concerns about credibility, frequently played an importnat role in the search for information. Men often used motoring magazine and motoring supplements of newspapers for information.
- There was a strong belief that all new cars are more or less equally safe, hence a degree of complacency about safety when choosing a vehicle. [countering this misconception is a key purpose of NCAP.]
- Car safety was a difficult concept for consumers to define and measure: most worked off proxy measures such as availability of airbags. There were lingering misconceptions about what constitutes a safe car particularly a misunderstanding that a "strong body" makes for improved crashworthiness. Horror stories from the USA had undermined the perceptions about airbags.
- NCAP was seen as contributing to raising manufacturer's standards rather than as a source of information for consumers.

Analysis of Brochures

A total of 63 brochures were analysed. Key results are set out in Table1.

Table 1. Overall promotion of safety in manufacturer's brochures.

MAKE	NONE	POOR	MODER -ATE	GOOD	HIGH	% DEVOTED TO SAFETY#
ALFA ROMEO	3					0%
AUDI				2	2	50%
CITROEN						10%
DAEWOO		1	4			4%
DAIHATSU				3		9%
FORD		1	1			8%
HOLDEN				2		8%
HONDA			2	6		5%
HYUNDAI			3	1		6%
MAZDA		1				0%
MITSUBISHI		1	2			2%
NISSAN				5		9%
PEUGEOT			1	2		5%
SAAB				2		4%
SUBARU			3			4%
SUZUKI			1	1		8%
ΤΟΥΟΤΑ			3	2		5%
VOLKSWAGEN				5		25%
VOLVO	2				1	13%
ALL	5	4	20	31	3	9%

Number of models

"Devoted to safety" was the approximate total proportion of the brochure that referred to features and safety performance, by page area.

Saab and Volvo are makes that have traditionally promoted safety but this was not evident in the assessed brochures. There was a subtle reference in the Volvo motto "for life" but generally the brochures appeared to be promoting a sporty image. The German manufacturers Audi and Volkswagen gave the most prominence to safety. In the case of multi-page brochures safety was generally located mid-way or to the back of the brochure.

Table 2 sets out the prominence given to various safety features in the brochures. Note that in most cases of "no promotion" the feature was not available for the model. Generally if a safety feature was available it received "good" to "high" promotion.

Proportion of all (63) brochures

SAFETY FEATURE	NONE	POOR	MODER ATE	GOOD	HIGH
Driver airbag	12%	2%	16%	62%	9%
Passenger airbag	21%	2%	14%	55%	9%
Side (thorax) airbag	76%	-	-	21%	3%
Side (head) airbag	86%	-	-	10%	3%
Seat belt pre-tensioners	59%	3%	3%	26%	9%
ABS brakes	31%	10%	19%	34%	5%

Table 2. Promotion of certain safety features in manufacturer's brochures

Dealer survey

A total of 25 motor dealers were approached. Despite numerous follow-ups attempts only 4 responded with information about promotion of safety features. One agreed to an interview but subsequently said he was "too busy". Overall 20 failed to respond to the initial approach (mainly by email) or subsequent follow-ups.

In retrospect, the poor response was probably a reflection of a general disinterest in safety features and, perhaps, a distrust of an "outsider" asking questions about their sales techniques. The lack of local contact might have been a factor in the lack of any responses from West Australian dealers. However, the introductory letter indicated that the project was for a West Australian government department (Appendix A).

Nevertheless, the comments that were received gave some good insights into the nature of the industry. It is evident the efforts of dealers who are interested in promoting safety are frustrated by the prominence given to low prices in newspaper advertisements, generally for competing makes that have fewer safety features - the "bottom line" factor. Key features of the four responses are described below.

Sydney Holden Dealer

The sales manager considered that promotion of safety was important. He liked to point out the safety features on inexpensive models such as the Barina, particularly since it was competing with models that had fewer safety features.

Front passenger airbags were optional on some models but often it was hard to locate a vehicle that had the option fitted (or there were long delivery times). If

people were interested in items such as dual airbags then he usually suggested a higher variant that had the feature as standard. An exception was ABS brakes. Where these were optional the dealer usually had ready access to suitable vehicles.

In the case of side airbags that were standard on the Holden Acclaim he found that most people were not aware of them and it came as a pleasant surprise when they picked up the vehicle. The safety pack that was available for the Commodore Equipe was considered a good price (\$1015 for passenger and side airbags) but was not popular.

He was rarely asked about child restraints. Some people asked about the speed alarm that has been standard on the Commodore for several years. Cruise control was also of interest to some customers.

In regard to ideas for improving the uptake of safety features:

- Tax concessions would be welcome but may be difficult to implement
- Regulations of voluntary agreement to make some features standard would also be welcomed (would mainly affect competition)
- Make some features "standard" but giving customers the option of deleting them when ordering. Too cumbersome. It is mainly the "bottom line" in advertisements that attracts people's attention. A problem was that some competing models do not have features such as passenger airbags or ABS brakes available even as an option so the bottom line would be a driver airbag. However, soon all passenger cars are likely to have a driver airbag.
- Resale value. Only mentioned if customers seemed interested in resale value which was rare.
- Government brochures/advertising would like to be able to order ANCAP brochures directly (from NSW RTA?). Government ads promoting safety would be welcome.
- Explanations of purpose of safety features. Would like to see brochures, posters and videos showing how safety features such as airbags work.

Sydney Dealer for Toyota, Subaru and Audi

The sales manager considered that promotion of safety was important and he was pleased with safety record of the makes of vehicle they market.

Front passenger airbags are optional on some models but it was often very difficult to find a vehicle that had the option fitted (mainly long delivery times). He found more and more people were expecting passenger airbags and were disappointing if they were not (readily) available. Similar for ABS brakes.

In the case of side airbags that are standard on some high level models he found that most people were not aware of them and it came as a pleasant surprise. Could do with greater awareness. The Aventis has curtain airbags and this needed to be promoted more. He rarely was asked about child restraints but refers people to a restraint fitting station if they ask.

Commercial vehicle purchasers generally consider themselves to be tough and are not interested in safety ("unbreakable"!).

In regard to ideas for improving the uptake of safety features:

- Tax concessions would be welcome. Maybe also insurance discounts.
- Regulations of voluntary agreement to make some features standard would also be welcomed (would raise the "lowest common denominator")
- Make some features "standard" but giving customers the option of deleting them when ordering. Too cumbersome. Would like to see ads confined to vehicles with dual airbags and ABS.
- Resale value was never mentioned. In any case, he was unlikely to point out the benefit of safety features on resale value.
- Government brochures/advertising would like to be able to order ANCAP brochures directly (from NSW RTA). Government ads promoting safety would be welcome.
- Explanations of purpose of safety features. Some material might be available from Toyota but he was not aware of any. Might set up a video in the showroom if it was appropriate.

Sydney Ford Dealer

The sales manager ranked safety highly when promoting vehicles. Ford has a safety hotline that customers are referred to.

Front passenger airbags are optional on some models but was often hard to find a vehicle that had the option fitted (or there were long delivery times). If people were interested in items such as dual airbags then he usually suggested a higher variant that had the feature as standard. Similar for ABS brakes.

Side airbags were not available at the time of the interview.

Ford has child restraints available as an accessory. Speed alarms are standard on most vehicles.

In regard to ideas for improving the uptake of safety features:

- Tax concessions would be welcome. Ford was running a "tax free" promotion but not related to safety features.
- Regulations of voluntary agreement to make some features standard would also be welcomed (would mainly affect competition)
- Make some features "standard" but giving customers the option of deleting them when ordering. May be too confusing.
- Resale value. Would agree with customers if they suggested this.
- Safety was important to customers especially women. Men have other priorities but to sell a car it was necessary to cover safety items.

Sydney Alfa Romeo Dealer

The sales manager ranked safety highly when promoting vehicles. There were no manufacturer's brochures or other material that promoted vehicle safety available to dealers (confirmed at Motor Show).

Multiple airbags were standard on all models, as were ABS brakes.

In regard to ideas for improving the uptake of safety features:

- Tax concessions "sounded good".
- Any features proven to minimise risk of death should be made available on all makes.
- Concerned that with some makes features were deleted to minimise cost.
- Requiring some features to be available as an option. One way of eventually making them standard.
- Government and manufacturer's brochures a good idea.
- Dealer advertising likely to follow public awareness.

Newspaper advertisements

In view of the difficulty obtaining responses from dealers it was decided to conduct a review of newspaper advertisements by dealers in Sydney and Perth. In particular, an assessment was made of the prominence given to vehicle safety and safety features in these advertisements. Motoring supplements for the Sydney Morning Herald (13 Apr 02), Manly Daily (20 Apr 02, 18 May 02, 25 May 02) and West Australian (17 Apr 02, 27 Apr 02) were used.

Details of the review are set out in Appendix B. In brief, there was a wide variation in the promotion of safety features. This occurred from the cheapest to the most expensive models:

- There was no mention of safety or safety features in some Sydney ads for BMW, Audi, Volvo and Rover and yet all the models were well equipped with safety equipment. On the other hand Mercedes Benz and VW ads had prominent safety items.
- Holden dealers (WA and NSW) seemed reluctant to mention airbags on the Barina, Astra and Vectra but mentioned the 4 airbags on the Acclaim.
- Chrysler and Jeep had prominent safety items
- A dealer in NSW that stocked BMW, Honda, Nissan, Hyundai, Renault, Kia and Suzuki only mentioned airbags for the Honda, Nissan, Hyundai and Renault but not for the high end (BMW) or low end (Kia and Suzuki).
- Most Toyota, Subaru, Daihatsu, Chrysler, Jeep, Kia, Hyundai and Nissan dealers had prominent safety items.
- Mitsubishi, Daewoo, Suzuki and Mazda dealers were mixed but airbags were less likely to be mentioned with "sporty" models.
- Safety was prominent in Renault ads

Safety appeared to be given greater prominence in ads for "family" vehicles. Ads for sporty or commercial vehicles were less likely to mention safety features.

It is possible that there was a trend, amongst mid-range vehicles, to downplay driver airbags now that they are fitted to nearly all passenger vehicles. For example, dual airbags or (better still) 4 airbags get mentioned but if only a driver airbag is fitted this might not get mentioned. It is only in the past year that popular, competing cheaper models have had a driver airbag as standard.

Browsing *used car* advertisements suggests that airbags were likely to be mentioned if they were fitted. There may be increasing interest in airbags by used car purchasers.

Motor Industry consultation

A brief meeting was held with a representative of the Federal Chamber of Automotive Industries (FCAI) to discuss the proposed survey of motor dealers and manufacturers.

In a subsequent email FCAI advised: "After canvassing your request within FCAI, I advise that FCAI is not in a position to coordinate the survey. As a national organisation, we are linked with DOTARS. In regard to vehicle safety issues; we are not resourced to address individual state/territory issues.

We would question the validity of the proposed survey. Occupant protection is not necessarily measured by the number of 'Safety Features' on a vehicle; rather it is related to the real life performance of the overall occupant protection package designed for the vehicle."

The comment about the validity of the survey indicates that manufacturers would be unlikely to respond to the survey. In the circumstances it was decided to not proceed with the approach to vehicle manufacturers.

Consultation with fleet operators and other stakeholders

Fleet managers

Attempts were made to contact fleet managers. Possible contact names and phone numbers were obtained from the NSW RTA's Project Manager for Fleet Safety. Responses are summarised below.

- Executive Director of the Australian Fleet Managers Association was not available. Assistant said the Executive Director was very busy but fax the survey form and she would have a look at it. No response.
- Senior manager of NSW Government Fleet Services. Not available for discussion but responded to faxed survey form (see below).
- Fleet manager for a state government department. Reluctant to discuss the matter but opened up a little. Rely on State Fleet Services to negotiate with manufacturers. Then a matter of choosing a vehicle to meet the business needs. Recommend a driver airbag if available. This was no longer an issue with passenger cars but remains a problem with commercial vehicles.

- Fleet manager of a national corporation. Unable to be contacted.
- Fleet manager of a local council. Contact person no longer with council. Duties spread amongst several people. Faxed form as requested but no response.
- Fleet manager of a local council. Responded to survey (see below).

This experience tended to confirm the findings of the CARRS-Q Workshop – that fleet managers are too busy to be concerned about safety and have other pressing priorities.

The senior manager of state government fleet services provided following information.

- The fleet had a wide range of vehicles from passenger cars to four-wheeldrives and commercials.
- Safety was rank "high" against other factors when buying vehicles.
- ANCAP results and other sources of safety information were consulted.
- Driver and front passenger airbags and ABS brakes were always purchased, if available.
- Side airbags were always purchased, if available.
- Cargo barriers are always purchased for goods carrying vehicles.
- Speed alarms (set by driver) were often on vehicles.
- Tax concessions for safety features are a good idea, but the government would need convincing.
- Should promote the fact that safety features help boost resale value of vehicles.
- Consumers might object to some safety features being made mandatory.
- Making some features standard but giving option of deleting them would be more acceptable to consumers.
- A requirement that some safety features must be available at least as an option was seen as a good idea, as was government and manufacturer promotion of safety features.

The fleet manager of a local council provided following information.

- There were 165 passenger vehicles (Holden Acclaim and Toyota Conquest), 92 utilities (Commodore and Falcon) and 140 light commercials (Hilux and Hiace)
- Safety was rank "high" against other factors when buying vehicles (this was evident from the choice of the Acclaim instead of the base Commodore).
- The fleet operated to the FleetSafe policy. ANCAP results and other sources of safety information were consulted.

- Driver and front passenger airbags and ABS brakes were always purchased, if available.
- Side airbags were rarely purchased.
- Cargo barriers were always purchased for goods carrying vehicles.
- Speed alarms (set by driver) were on all passenger cars and utilities.
- Safety features helped boost resale value of passenger cars but not commercial vehicles.
- Good idea to make some safety features mandatory would reduce competition from cheaper, less well equipped imported commercial vehicles. Would also improve resale value of commercials.
- Promotion of ABS needs to address common misconception that it reduces stopping distances in all circumstances.
- The fleet had just order a Hino truck fitted with ABS and a driver airbag. Discussed these features with other manufacturers and was told they were reluctant to add safety features because of coming cost increases, such as compliance with stricter emissions standards.

Union representative

A telephone conversation was held with the OH&S specialist from a large NSW state government union. Key points were:

- Safety of vehicles was raised from time to time but was not a key concern
- The Fringe Benefits tax provisions made it attractive for companies/departments to provide commercial vehicles to their employees if there is substantial "private use". These often had less safety features than cars.
- Policy was to purchase locally manufactured vehicles. This eliminated the competition from better equipped imports.
- Would like to see a state government working party on fleet vehicle safety formed to address the issues.
- Organisations fail to appreciate the full effects of serious road crashes on the business. Small organisations or sections within large organisations can be affected for months after a traumatic death or severe injury to a colleague.
- Would like to see [NSW] Workcover Department more involved in workrelated road accidents. Tended to only look at fatigue issues and not whether a safer vehicle would have changed the outcome.
- [NSW] State Coroner might not realise that a fatality under investigation should be brought to the attention of Workcover.

Workcover officer

A brief discussion was held with an investigation officer from NSW Workcover. This *unofficial* advice confirmed the concerns expressed by the union representative that road accidents tended to be overlooked in workplace safety. In NSW there was a responsibility placed on employers to report to Workcover all incidents of fatality of injury involving more than seven days absence. However, traditionally road accidents have not been included in this reporting process, partly because the Police and RTA are seen as the parties responsible for collecting road accident data.

Personal experiences buying a small car

The author's own experiences in assisting his wife buy a small car have been instructive. Key points were:

- When buying an imported small car in 1994 there was a four month delay in delivery because none were available with a driver airbag.
- The salesperson at the time was keen to sell us a non-airbag model.
- While replacing the vehicle in 2002 we were keen to obtain a model with head-protecting side airbags.
- The base model Peugeot 206 did not have side airbags The salesperson stated "Australians weren't interested in side airbags". We were told that even if they became optional it would take 6 months for delivery. Interestijngly the next model up – the Peugeot 307, had head-protecting side airbags.
- The Renault Clio had head-protecting side airbags. The salesperson was well informed about the many standard safety features of the Clio. We did, however, need to inspect the brochure thoroughly to confirm that the seat mounted side airbags did provide head protection (confirmed from a cutaway picture of the vehicle with all the airbags inflated). While in the showroom the salesperson proudly pointed out that Laguna had earned 5 stars from EuroNCAP. He was unaware of the Clio rating in Europe (4 stars, without the side airbags).

Marketing Safety

In order to better understand the results of the investigations a brief review of marketing theory was undertaken.

General consumer behaviour

Conveniently, marketing strategy textbooks tend to use motor vehicle purchases as examples of the various influences on consumer decisions (Neal, Quester and Hawkins 2001).

Brand awareness

Some brands have established reputations in certain fields, including safety. In reaching a decision, most consumers develop an "awareness set" - all of the

products that might be worth considering. Within this set there is usually an "evoked set" - those products that are *perceived* to have a good reputation for the task. Then there is the "inert set" - those products which might do the job but the consumer is indifferent towards them. Finally there is the "inept set" - products that are disliked by the consumer.

The reasons for categorising products into these groups can be quite illogical and based on misinformation. A key aim of marketing managers is to gain "evoked set" status for their products. Promotion of vehicle safety should have a similar aim, and particularly should ensure that safety is not regarded in the inept set.

Mercedes is given as an example of a vehicle manufacturer that successfully defended their market position (evoked set for safety) through advertising: "An airbag is only as good as the vehicle it is attached to."

A perceptual map for car models illustrates the various influences on car buyers (from Neal 2001)

			Stylish, Pr	restigious			
	Rolls Roy.				Mercedes	Porsche	
	Jaguar	Volvo				BMW	
Staid &							Fun &
Conserv.		_			Capri		Sporty
	Cressida					Mazda	
		Commodore			Barina		

Practical. economical

It is evident that "safety" does not fit into this perceptual map, except, perhaps that models with a "safe" reputation are generally higher on the map - meaning more expensive. The authors advise that "all aspects of the marketing mix (price product design and quality, outlets and advertising messages) must be consistent " and delivered with "sufficient repetitions, rewards and so on to ensure that the desired product position [on the map] is learned [by the consumer]."

During the second strand of the project it was noted that Volvo appears to be emphasising sportiness rather than safety. An aim of Volvo Australia may be to shift perceptions to the right ("fun and sporty") while maintaining the perception of "prestige". It is possible that safety is seen as connected with "staid and conservative" by that company, although the placement of Mercedes and BMW on the right side of the map suggests otherwise.

Motivation

Maslow's Needs Hierarchy is used in marketing research. This recognises that some needs are more basic and critical than others. As the basic needs are satisfied more advanced motives come into play. Briefly the levels of the hierarchy are:

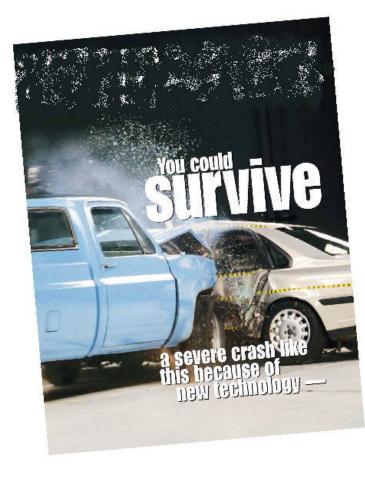
- 1. Physiological food, water, sleep etc
- 2. Safety physical safety, security.

- 3. Belongingness relationships, group acceptance
- 4. Esteem desire for status, superiority, self-respect and prestige
- 5. Self-actualisation fulfilment, achieving ones aims, recreation

It is interesting that safety is number two on the list and yet it appears to be relatively unimportant in consumer decisions about car purchases and in most car advertising. This suggests that safety is "taken for granted" by typical car buyers. This is a perception that should be addressed in any strategy to encourage the purchase of safer vehicles.

It is possible that people seeking higher motives such as peer acceptance or status, might suppress the safety motive because it might be seen as a sign of (social) insecurity.

On the other hand, stressing the safety of family members can be very effective. One approach may be to stress the extra protection that, say, side airbags provide for passengers: "How would you feel knowing that your decision to get a CD player instead of airbags resulted in severe injury to a family member? Side airbags can halve the risk of a serious of fatal injury in a side impact". A Status Report magazine issued by the US Insurance Institute for Highway Safety has an interesting and positive approach to this issue: "You could survive a severe crash like this because of new technology" (Status Report Vol. 36 No.1, January 2001).



Decision making

Car buying is frequently a "household" decision. Where several people are involved in a decision they are categorised in to five distinct roles (although one person may fulfil more than one role):

- 1. Information gather
- 2. Influencer
- 3. Decision maker
- 4. Purchaser
- 5. User

Marketers try to establish who in the household plays the various roles and target advertising at influencers and information gatherers. The authors note that children often exert a substantial influence (directly or indirectly) on the purchasing decision for a wide range of products. For a typical car purchase by a household the influence on decision process is approximately: 50% husband, 30% wife and 20% children. However, society is changing and "car manufacturers are developing communication strategies that appeal to women as individuals, or as more influential participants in the decision making process than before".

Lessons from market research

- A key aim of marketing managers is to have their product readily recognised as having a good reputation for the task. An aim of safety researchers should therefore be to ensure that vehicle safety is included amongst the *essential qualities of a desirable motor vehicle* and that vehicles with good safety performance are acknowledged and promoted.
- The point should be made that safety is independent of the typical influences on car buyers: price versus prestige and sportiness versus conservativeness. Examples of good safety performers can be found at all of the extremes of these influences.
- "Safety" is a key basic need of humans but it appears to be taken for granted by consumers in the case of motor vehicles. There is perhaps a perception that all cars meet minimum levels of safety and so none are "unsafe". This does not recognise that in some types of crashes the chances of a serious injury are much greater in some models than in the best performing models. In other words, depending on the circumstances of the crash, some models can be regarded as "unsafe" when compared with the best performers.
- It is possible that the safety motive is suppressed by people seeking higher motives such as peer acceptance and status (in order to avoid the appearance of insecurity). However, the safety of family members can be a very effective motivator.
- The influence of women and children on car purchasing should not be overlooked.

Conclusions

A literature review revealed that for fleet buyers:

- Safety considerations may influence which level of car is purchased within a manufacturer's range (or which options are selected). Vehicle selection is generally a choice of the safest possible car within reasonably tight constraints, rather than the safest possible car on the market.
- The move to maximise resale values has led to consideration of the resale implications of some safety features (this can possibly encourage airbag fitting). However, there is a general perception that adding safety options to base models does not achieve full resale value in the used car market so *fleets generally avoid adding options*. Higher level models with more standard safety features may achieve better returns.
- There is a general emphasis on counting accidents and repair costs rather than injuries. Many organisations do not appear to count the hidden costs of crashes (eg lost time and productivity) which can be four to twenty times the accountable costs.
- In the USA and Canada, fleet managers rate safety among the top factors when selecting vehicles.
- In Australia there is some confusion or uncertainty as to the actual costbenefit trade off of various options.
- Management time and resources are likely to be the main barriers to action to improve fleet safety. Tax incentives for vehicles with safety features and greater awareness of (and commitment to) safety issues by senior management would assist.
- The majority (54% of all and 70% of the medium/large car segment) of the new vehicle market in Australia is purchased initially for commercial purposes. Most of these will become part of the general Australian vehicle pool within 2-3 years.
- Staysafe 36 identified that fleet vehicles typically travel about three times the distance of the average private vehicle.
- In Australia, road crashes are the most common cause of work-related death, injury and absence from work. They account for nearly 50% of all work-related fatalities.

In the case of non-fleet buyers

- In USA in 1999 80% of new car purchasers (non-fleet) surveyed indicated that safety was important to their purchase decision
- Nearly 70% sought safety information prior to making a decision.

A planned survey of dealers and manufacturers was not successful. Out of 23 dealers who were approached only four participated in the survey. However these four responses did provide some insight into the attitude of the motor industry towards vehicle safety. Key findings were:

- Of those that responded, safety was ranked highly in the promotion of vehicles. They like to point out that their vehicles have better safety features than (cheaper) competing models.
- There are usually impediments if safety features are ordered as an optional accessory. In addition to the extra cost, there is frequently a much longer delivery time for a vehicle with options. In these cases customers are encouraged to consider a variant with higher specifications. This might cost more than an optioned up vehicle but delivery times are usually much better.
- More and more customers are expecting to find dual airbags as standard on vehicles.
- Customers are generally unaware of the need for side airbags.
- Commercial vehicle purchasers are generally not interested in safety.
- Women are more likely to ask about vehicle safety

Their responses to ideas for improving uptake of safety features were:

- Tax concessions good idea (note that the NSW government is about to introduce stamp duty discounts for "green" cars this may be a useful model for safety features).
- Regulations of voluntary agreement to make some features standard would also be welcomed (would mainly affect "the competition")
- Make some features "standard" but giving customers the option of deleting them when ordering. May be too confusing. Too cumbersome.
- Resale value. Will agree with customers if they suggest this but it not a good idea to raise it first.
- Required optional safety features (must have certain items at available as an option). They didn't really see the point (mainly that it should help to increase public awareness and lowest the costs of these features.
- Government brochures. Each would be interested in receiving supplies of ANCAP brochures etc (assuming the models they sell do well).
- Manufacturer's information. Manufacturers could do a better job promoting safety features. For example, videos showing how they work could be displayed in showrooms (maybe scope for some ANCAP videos here although videos of crashing vehicles are not a good idea).

Other ideas that were raised:

- Controls on advertising might help. Customers' main priority is price. They have decided they can spend a certain amount and want to get the most for their money. A cheaper, less equipped model is too attractive (CD player instead of airbags). Perhaps an industry agreement to only advertise models with, say, dual airbags would "raise the bar".
- Insurance concessions for vehicles with safety features. There is a fundamental problem with the nature of the insurance industry that may

preclude this. There is no great financial incentive to insurers to save lives. On the other hand, it costs more to repair vehicles with airbags.

A review of 28 newspaper advertisements by dealers revealed that safety features were either well promoted or not promoted at all.

- It is likely that safety is given greater prominence in ads for "family" vehicles. Ads for sporty or commercial vehicles are much less likely to mention safety features.
- High prominence is given to airbags in some of the cheaper makes that have only recently introduced airbags as standard equipment. However one dealer that sells a mixture of low and mid-range makes appears to be ignoring the standard safety features on the cheaper vehicles.
- Some of the makes with traditional safety reputations do not appear to be giving much prominence to safety in advertisements.
- Used car advertisements suggests that airbags are likely to be mentioned if they are fitted. It is likely that there is greater interest in airbags from used car purchasers.

A review of 63 manufacturer's brochures revealed that 5% gave high, 49% gave good and 8% gave no prominence to vehicle safety. Only Alfa Romeo and, surprisingly, Volvo (in two of three brochures checked) made no mention of safety.

Driver airbags, side airbags (including curtains) and dual airbags were well promoted, where fitted. ABS brakes were less prominent. The less well known seat belt pretensioners were also reasonably promoted.

The Federal Chamber of Automotive Industries declined to assist with a survey of manufacturers/distributors in Australia. The FCAI questions the validity of promoting safety features on vehicles, in the absence of an assessment of real world performance.

Attempts to contact Australian fleet managers were largely unsuccessful. This tended to confirm the views that fleet managers are to busy to be concerned about safety. The two detailed responses received indicated that that these particular fleets did place a high priority on safety and actively sought out safety information before purchasing vehicles. Brief discussions about fleet vehicle safety were also held with union and Workcover personnel. Key findings were.

- As indicated, fleet managers, tend to be "too busy" to think about vehicle safety in day to day work. Time needs to be set aside so workshops or working parties are a good idea.
- Federal FBT policy tends to encourage the purchase of commercial style vehicles to minimise taxation for "private use". This may result in the purchase of vehicles with fewer safety features.
- Policies that encourage the purchase of locally manufactured vehicles can decrease competition for safety features and performance. On the other hand, recent NCAP results suggest the Commodore and Falcon utilities

provide much better occupant protection than the imported light utilities that generally do not have a driver airbag.

- Safety features like airbags are unlikely to improve the resale value of commercial vehicles.
- Company management fails to appreciate the full effects of a serious road crash on the organisation.
- Greater attention should be given to work-related road crashes as an occupational health and safety issue.

Private car buyers are faced with a wide range of attitudes from new car salespeople towards safety. Some salespeople will talk up safety if the vehicle they are trying to sell is well equipped but downplay it if the model is not well equipped. This can even happen where same make has different levels of safety features between models.

Where safety features are available it appears that salespeople need to be much better informed about their purpose and benefits. There also needs to be ways to expedite locating models with optional safety features to avoid long delays in delivery.

Recommendations

In order to encourage the purchase of safer vehicles it is recommended that:

- The results of consumer programs such as NCAP and Used Car Safety Ratings be better promoted. The fact that there is a large difference in the crashworthiness of similarly-priced vehicles should be stressed.
- Consumers (and car salespeople) be provided with an indication of the difference in crash outcomes that some safety features can be expected to produce. It is noted that ANCAP generally only tests and rates the least equipped model in a range and consumers have no indication of the performance of better-equipped variants. There may be a case for NCAP testing some higher equipped variants from time to time. Similarly, Used Car Safety Ratings usually consolidate the results for all variants into one rating for the model.
- Safety campaigns target woman and stress family safety (child occupants and teenage drivers). Campaigns should also target commercial vehicle buyers and stress the inferior safety of some of these vehicles.
- Senior managers in corporations be made aware of the hidden costs of accidents and the benefits of specifying safer vehicles. "Best practice" amongst fleets should be promoted, as should occupational health and safety issues.
- Workshops or other special sessions should be provided for fleet managers so that they can get away from day to day problems and have time to absorb the safety message.

- Occupational health and safety personnel should give much greater attention to work-related road crashes. Reporting systems should be reviewed to ensure that all serious road crashes are covered.
- Consideration be given to tax concessions or other incentives for priority safety features or above-average crashworthiness. FBT provisions that encourage the purchase of (possibly) less-safe commercial vehicles should be reviewed.
- Address the conflicting priorities in the insurance industry so that greater attention is given to injury and less to repair costs.
- Consideration be given to ways of discouraging the advertising and promoting of the least equipped variants for a model - dealers are extremely sensitive to advertised price. A voluntary industry agreement to only advertise the price for models with minimum safety features (or a "safety pack") is preferred but would probably meet with industry resistance.

References

Glass'Guide Pty Ltd (2001) Autocomplete – Guide to Australian Vehicle Models, October 2001.

Haworth N, Tingvell C and Kowadlo N (2000) *Review of best practice road safety initiatives in the corporate and/or business environment.* Monash University Accident Research Unit Report 166, March 2000.

Insurance Research Council (1999) *Public Attitude Monitor - Vehicle Safety* (executive summary). 16 December 1999.

Just-auto.com (2001) *The global market for airbags and seatbelts: forecasts to 2010* (executive summary). http://just-auto.com/ 10 January 2001.

Neal C, Quester P and Hawkins D (2001) *Consumer Behaviour – Implications for Marketing Strategy*, McGraw-Hill.

Appendix A - Dealer Survey Form



Vehicle Design and Research Pty Limited Australian Business No. 63 003 980 809 10 Lanai Place Beacon Hill NSW Australia 2100 Telephone (02) 94514870 Facsimile (02) 99753966 Mobile 0418 165 741 Email: mpaine@tpgi.com.au www4.tpg.com.au/users/mpaine/vdr.html

IMPROVING THE UPTAKE VEHICLE SAFETY FEATURES

A SURVEY OF AUSTRALIAN MANUFACTURERS, DISTRIBUTORS AND DEALERS- MAY 2002

We have been engaged by Transport WA to look at ways to encourage the purchase of vehicles with safety features that are known to either reduce the chances of a crash occurring or reduce the risk of serious injury if a crash does occur. The priority safety features that have been identified from road safety research are:

- Driver airbag
- Front passenger airbag
- Side airbags for driver and front passenger, including head-protecting devices such as inflatable curtains
- ABS brakes
- A cargo barrier for wagons and vans

Additional features that could be encouraged are:

- Dealer-supplied child restraints, or integrated child seats
- Side airbags for the rear seats
- Headlights "on" warning or automatic headlights
- Speed alarm or, preferably, Intelligent Speed Adaption (the vehicle detects local speed limit and encourages compliance)
- Top speed limiting (theft deterrent)
- Engine immobiliser (theft deterrent)
- High transmittance and shatter-resistant glazing

We are seeking comments from Australian manufacturers, distributors and dealers on the availability and promotion of these and other safety features.

Your participation would be appreciated. PLEASE RETURN THE COMPLETED SURVEY BY 28 MAY 2002.

Michael Paine Manager

INSTRUCTIONS

This survey form has been prepared as an Acrobat form. If you are using *Acrobat (full version)* to view the form you can either:

- Fill out the form electronically, **then** email it by clicking on the button
- Fill out the form electronically, print it and then fax or post it (it is Do not click until form is completed recommended that you check that the form works correctly on your PC by filling out a couple of fields below and printing just this page some printers seem to have difficulty with Acrobat forms).
- Print out the form with no data, fill it out by hand and then fax or post it

If you have received a paper version of this survey, please fill it out and fax or post it to the address on the front page. *This also applies to Acrobat Reader, which is unable to send data by email.*

A. YOUR DETAILS		05-Jun-2002
COMPANY:		
MAKE OF VEHICLE COVERED BY THI	S SURVEY (One MAKE per form	please):
MODELS COVERED BY THIS SURVEY	:	
CONTACT NAME:		
PHONE:	FAX:	
EMAIL:		
WEBSITE:		

B. PROMOTION OF SAFETY RESET BOX
B1. HOW DOES SAFETY RANK AGAINST OTHER FACTORS WHEN PROMOTING VEHICLES?
OVERY HIGHO HIGHO MEDIUMO LOW
B2. ARE COMPANY MATERIALS THAT DIRECTLY PROMOTE SAFETY AND SAFETY FEATURES AVAILABLE TO DEALERS? YES NO
COMMENT:
B3. ARE AUSTRALIAN NEW CAR ASSESSMENT (ANCAP) CRASH TEST BROCHURES AVAILABLE TO DEALERS? O YES O NO
COMMENT:
B4. DOES THE COMPANY HAVE A SAFETY HOTLINE OR INTERNET SITE TO DEAL WITH CUSTOMER AND DEALER QUESTIONS ABOUT SAFETY? OYES ONO
COMMENT:

SEND BY EMAIL
Do not click until form is completed

C. SAFETY FEATURES - FOR <i>MOST</i> MODELS SOLD:	
C1. A DRIVER AIRBAG IS GENERALLY:	
OSTANDARD OOPTIONAL ONOT AVAILABLE	
COMMENT (SUCH AS IMPEDIMENTS TO MAKING IT STANDARD. WHERE OPTIONAL PLEASE INDICATE TYPICAL COST)	
C2. A FRONT PASSENGER AIRBAG IS GENERALLY:	
O STANDARD OOPTIONAL ONOT AVAILABLE COMMENT (IMPEDIMENTS)	
C3a. SIDE AIRBAGS (FRONT SEAT, THORAX) ARE GENERALLY:	
O STANDARD O OPTIONAL O NOT AVAILABLE COMMENT (IMPEDIMENTS)	
C3b. SIDE AIRBAGS (FRONT SEAT, HEAD PROTECTING) ARE GENERALLY:	
STANDARD OPTIONAL ONOT AVAILABLE	
COMMENT (IMPEDIMENTS)	
C4. ABS (ANTILOCK) BRAKES ARE GENERALLY:	
OSTANDARD OOPTIONAL ONOT AVAILABLE	
COMMENT (IMPEDIMENTS)	
C5. CARGO BARRIER (FOR GOODS CARRYING VEHICLES) IS GENERALLY:	
OSTANDARD OOPTIONAL ONOT AVAILABLE ONOT APPLICABLE	
COMMENT (IMPEDIMENTS)	
C6. DEALER SUPPLIED CHILD RESTRAINTS:	
OSTANDARD/INTEGRATED OPTIONAL ONOT AVAILABLE	
COMMENT (IMPEDIMENTS)	

C. SAFETY FEATURES (CONTINUED)	RESET BOX
C7. SIDE AIRBAGS FOR REAR SEATS ARE GENERALLY:	
OSTANDARD OOPTIONAL ONOT AVAILABLE) NOT APPLICABLE
COMMENT (IMPEDIMENTS)	
C8. AUTOMATIC HEADLIGHTS ARE GENERALLY:	
IF AVAILABLE, TYPE: OALWAYS "ON" OR OCOME ON WHEN	I IGHT I EVEI S ARE
LOW	
COMMENT (IMPEDIMENTS)	
C9. A "HEADLIGHTS ON" WARNING IS GENERALLY:	
OSTANDARD OOPTIONAL ONOT AVAILABLE	
O NOT APPLICABLE (AUTOMATIC - SEE C8) COMMENT (IMPEDIMENTS)	
C10. A SPEED ALARM IS GENERALLY:	
OSTANDARD OOPTIONAL ONOT AVAILABLE	
IF AVAILABLE, TYPE: OSET BY DRIVER OR OAUTOMATIC (eg C	GPS SYSTEM)
COMMENT (IMPEDIMENTS)	
C11. A TOP SPEED LIMITER IS GENERALLY: OSTANDARD OPTIONAL ONOT AVAILABLE	
IF AVAILABLE, WHAT IS THE TYPICAL SPEED SETTING? km/ł	1
HOW DIFFICULT WOULD IT BE TO SET THE SPEED AT, SAY, 120km/h?	
NOT POSSIBLE O DIFFICULT EASY	
COMMENT (IMPEDIMENTS)	
C12. AN ENGINE IMMOBILISER IS GENERALLY:	
OSTANDARD OOPTIONAL ONOT AVAILABLE	
COMMENT (IMPEDIMENTS)	

D. IMPROVING THE UPTAKE OF SAFETY FEATURES

RESET BOX

D1. DO YOU SUPPORT ENCOURAGING THE UPTAKE, BY CAR BUYERS, OF PRIORITY SAFETY FEATURES?

Oyes Ono

IF NO PLEASE GIVE REASONS:

D2 PLEASE COMMENT ON THE FOLLOWING *IDEAS* FOR IMPROVING THE UPTAKE OF SAFETY FEATURES.

1. TAX CONCESSIONS OR SIMILAR GOVERNMENT INITIATIVES TO REDUCE THE COST OF SAFETY FEATURES TO THE CONSUMER:

2. LEGISLATION OR VOLUNTARY AGREEMENT TO MAKE SOME SAFETY FEATURES STANDARD EQUIPMENT ON ALL MODELS:

3. MAKE SOME FEATURES "STANDARD" EQUIPMENT BUT GIVE THE CONSUMER THE OPTION OF DELETING A SAFETY FEATURE IN ORDER TO REDUCE THE PURCHASE PRICE (IN THIS WAY COMPARISONS WOULD NOT BE MADE ACCORDING TO THE LEAST EQUIPPED MODEL):

4. PROMOTE THE FACT THAT THE INITIAL COST OF SAFETY FEATURES IS A WORTHWHILE INVESTMENT IN PROTECTING VEHICLE OCCUPANTS AND THAT THESE FEATURES OFTEN IMPROVE THE RESALE VALUE OF A VEHICLE.

D. IMPROVING THE UPTAKE OF SAFETY FEATURES (CONTINUED)

5. LEGISLATION OR VOLUNTARY AGREEMENT TO MAKE SOME FEATURES AT LEAST AVAILABLE AS OPTIONAL EQUIPMENT ON ALL MODELS (IN THIS WAY MANUFACTURERS WOULD BE ENCOURAGED TO PROMOTE THE FEATURES IN ORDER TO RECOUP THE EXTRA DEVELOPMENT COSTS. ALSO THESE COSTS WOULD BE DEFRAYED OVER A LARGER NUMBER OF VEHICLES AND SO MAY BE ABLE TO BE OFFERED AT A LOWER UNIT COST):

6. GOVERNMENT BROCHURES/VIDEOS THAT PROMOTE AND EXPLAIN SAFETY FEATURES TO BE AVAILABLE TO DEALERS, MOTOR REGISTRIES AND/OR ON THE INTERNET:

7. MANUFACTURERS BROCHURES/VIDEOS THAT PROMOTE AND EXPLAIN SAFETY FEATURES TO BE AVAILABLE TO DEALERS AND/OR ON THE INTERNET:

8. GOVERNMENT ADVERTISING:

9. MANUFACTURER/DEALER ADVERTISING

10. OTHER SUGGESTIONS:

THANK YOU FOR YOUR CONTRIBUTION. SEE PAGE 2 FOR SUBMITTING THE COMPLETED FORM.

Make	Model	Price	Airbags	Comment			
Manly Daily, 18 M	Manly Daily, 18 May 2002, Drivetime Insert						
GBrothers, Mona Vale NSW							
Mercedes Benz	E-Class, E200K	\$79,500	8	First sentence: "one of the world's safest cars"			
Col Crawford, Bro	okvale NSW						
BMW	318i	\$68,000	-	No mention of any safety features on 10 listed BMWs			
Honda	Accord	\$47,000	2	Dual airbags for 9 of 10 listed Hondas. ABS for 7.			
Nissan	Pulsar	\$24,250	1	Driver airbag for all 3 Pulsars listed. "Safety pack" for all 3 Patrols listed.			
Hyundai	Accent GL	\$17,000	1	Driver airbags for Accent and Elantra, Dual airbags for Sonata and Santa Fe.			
Renault	Clio	\$21,700	4	4 airbags for 3 listed Clios, 6 airbags for 6 listed Scenics.			
Kia	Rio	\$16,000	-	No safety equipment for 5 Kia vehicles (Rio, Carnival (has driver airbag), Spectra and Sportage)			
Suzuki	Ignis	\$17,000	-	No safety equipment listed for 5 Suzuki vehicles (Jimny, Ignis, Liana, Vitara & XL7)			

Appendix B - Review of newspaper advertisements

Make	Model	Price	Airbags	Comment			
Peninsular Holden	, Dee Why NSW	-					
Holden	Barina Equipe	\$16,400	-	No mention of (standard) dual airbags for Barina or drivers airbag on Astra & Vectra			
Holden	Acclaim	\$32,500	4	"4 airbags, ABS brakes"			
Bill Buckle Prestig	e			_			
Audi	A3, A4	\$39,799+	-	No mention of any of the standard safety equipment on all Audis.			
Chatswood Classi	c Cars, Chatswood, N	NSW					
VW	Golf	\$26,000	2	"Driver and passenger airbags, ABS brakes" prominent			
Northside Volvo, E	rookvale, NSW						
Volvo	S60	\$50,000	-	No mention of any of the standard safety features on Volvos.			
MG Rover on Crov	wn, Surry Hills, NSW						
Rover	75	\$53,450	-	No mention of any of the standard safety features on the Rover 75.			
Brookvale Mazda,	Brookvale, NSW						
Mazda	Premacy etc	-	-	No mention of any features or prices. Ad for "clearance sale".			
Brookvale Chrysle	Brookvale Chrysler Jeep (also Mountway Melville, WA)						
Chrysler	PT Classic	\$32,000	2	Prominent. Also ABS			

Make	Model	Price	Airbags	Comment		
Chrysler	PT Limited	\$42,000	4	"		
Chrysler	Voyager (3)	\$54,000+	4	"		
Jeep	Wrangler	\$33,000	2			
Jeep	Cherokee (2)	\$48,000	2 + curtains	Prominent		
Jeep	Grand Cherokee	\$76,500	-	No mention of standard airbags & ABS		
West Australian,	Motoring, 27 Apr 20	02				
Kia Dealers (group	o ad), All of WA		-			
Kia	Rio	\$16,000	1	Prominent		
Kia	Spectra	\$20,000	1	"		
Kia	Sportage	\$26,000	1	"		
Prestige Melville, N	Prestige Melville, Melville, WA					
Honda	CR-V	\$33,000	-	No mention of standard airbags & ABS		
Hyundai Dealers (group ad), Perth WA						
Hyundai	Accent	\$15,000	1	Prominent		
Hyundai	Sonata	\$26,000	1	"		
Hyundai	Elantra	\$19,000	1	"		
Hyundai	Lavita	\$23,000	1	"		
Hyundai	Terracan	\$38,000	1	"		
Hyundai	Santa Fe	\$30,000	1	"		
Hyundai	Tiburon	\$36,000	2	"		

Make	Model	Price	Airbags	Comment
North City Holden				
Holden	Vectra	\$23,700	-	ABS but not (standard) airbag
Holden	Astra	\$23,000	-	No mention of standard airbag
Holden	Calais	\$43,500	-	No mention of standard airbag
Holden	Commodore	\$27,500	-	ABS but not (standard) airbag.
Big Rock Toyota,	Balcatta, WA			
Toyota	Corolla	\$20,000	1	Prominent
Toyota	Camry	\$25,700	2?	"SRS Airbags"
Toyota	Hilux	\$15,000	-	-
Toyota	Corolla Levin	\$26,000	2	Dual airbags, ABS
Toyota	RAV4 Edge	\$27,000	2	Dual airbags
Toyota	Landcruiser	\$?	2	Dual airbags, ABS
Southside Mitsubi	shi			
Mitsubishi	Challenger	\$40,000	2	Prominent
Mitsubishi	Lancer	\$19,500	-	No mention of standard airbag
Mitsubishi	Pajero	\$45,500	2	Prominent
Mitsubishi	Lancer Coupe	\$30,000	-	No mention of standard airbag
Magic Nissan, Melville, WA				
Nissan	Pulsar	\$20,000	1	Prominent

Make	Model	Price	Airbags	Comment		
Nissan	Pathfinder	\$40,500	1	n		
Nissan	X-Trail	\$30,000	2	Dual airbags, ABS		
Nissan	Patrol	\$48,000	2	"Patrol ST Safety" !		
Melville Motors	Melville Motors					
Subaru	Impreza	\$27,000	2	Dual airbags, ABS		
Subaru	Impreza WRX	\$40,000	2	Dual airbags, ABS. Less prominentr		
Subaru	Liberty	\$40,000	2	п		
Subaru	Outback	\$40,000	2	п		
Holden	Commodore	\$29,000	-	ABS but no mention of standard airbag		
Holden	Acclaim	\$32,500	-	No mention of standard airbags		
Holden	Barina	\$18,000	2	Prominent		
Holden	Jackeroo	\$36,000	-	No mention of standard airbags		
Holden	Astra	\$20,500	2	Prominent		
Holden	Astra	\$23,000	2	п		
Giant Daihatsu, O	Giant Daihatsu, Osborne, WA					
Daihatsu	Sirion	\$15,000	2	Dual airbags, ABS, prominent		
Titan Ford, Melville, WA						
Ford	Explorer	\$?	2	Dual airbags, ABS, prominent		
Ford	F250	\$?	-	'Awesome power' !		
Daewoo dealers (group ad), WA						

Make	Model	Price	Airbags	Comment		
Daewoo	Matiz	\$12,000	2	Prominent		
Daewoo	Lanos	\$14,000	-	Sporty features listed		
Daewoo	Nubira	\$20,000	1	Not prominent		
Daewoo	Tacuma	\$25,000	2	и		
Daihatsu dealers ((group ad), WA					
Daihatsu	Sirion GTVi	\$17,000	2	Dual airbags, ABS, prominent		
Daihatsu	Terios	\$19,000	2	Prominent		
Mazda dealers (gr	oup ad), WA					
Mazda	626	\$29,000	-	"Sporty". No mention of standard airbag		
Mazda	323	\$20,000	1	Prominent		
Mazda	Tribute	\$30,000	2	п		
Skipper, Victoria F	Skipper, Victoria Park, WA (2 similar ads)					
VW	Golf	\$29,000	2	Dual airbags, ABS. Not prominent.		
Suzuki dealers (group ad), WA (also Northside Suzuki)						
Suzuki	Liana	\$20,000	2	Dual airbags prominent. "Before toying with Corolla"		
Chrysler/Jeep dealers (group ad, WA						
Chrysler	РТ	\$32,000	2	Dual airbags, ABS, prominent		
Chrysler	Voyager	\$52,500	4	Dual front and side airbags, ABS, prominent		
Jeep	Cherokee	\$43,500	4	Dual front and side curtain airbags, ABS, prominent		

Make	Model	Price	Airbags	Comment	
Jeep	Wrangler	\$35,000	2	Dual airbags, prominent	
Jeep	Grand Cherokee	\$54,500	2	Prominent but no mention of curtain airbags.	
Westpoint Star, O	Westpoint Star, Osborne Park, WA				
Mercedes Benz	A-Class	\$35,000	4	4 airbags, prominent	
Landrover dealers (group ad) WA					
Landrover	Discovery	\$50,000	2	Dual airbags, ABS, prominent but low in list	
Giant Autos					
Renault	Clio, Scenic & Megane	\$20,000+	4	Dual airbags, ABS, prominent	