White Paper

Motor Insurance Consumer Insights Study 2016

Driverless cars: the road ahead

July 2016



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Introduction

In September 2015, LexisNexis[®] Risk Solutions, UK released a new study that explored consumer insights, attitudes and perceptions of motor insurance. LexisNexis commissioned this independent research study through a consumer panel of 1,314 UK based adults aged 18 and over, who were identified as currently insured drivers and policy decision makers. Lynx Research Consulting provided the data analysis and reporting.



The study delves into four key areas:

Attitudes towards data and telematics, fraud, motor insurance shopping and buying; and driverless cars.

Are consumers up to speed with driverless cars?

Once the stuff of science fiction, driverless cars are set to transform the way we drive, quite literally, as early as 2017. The first prototypes – consisting of two-seater Meridian vehicles – have already taken part in trials across four British cities, And with a £19m fund backing these cars, the government claims that the UK is uniquely positioned to lead the development of the technology.



Like our earlier 2013 survey, the 2015 study uses the same respondent profiles and demographics – enabling comparative data in many areas



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As former business secretary, Vince Cable, explains: "The projects we are now funding in Greenwich, Bristol, Milton Keynes and Coventry will help to ensure we are world-leaders in this field and able to benefit from what is expected to be a £900bn industry by 2025."¹

But behind all of these discussions, it's clear from our study that consumers have conflicting attitudes towards cars that operate without a driver.

While one in five have never actually heard of them, 59% can accurately describe driverless cars – with 8% knowing a lot about them. A person's age and gender play a significant role in how much they know. And contrary to what most people might imagine, younger consumers are the least familiar.



What is a driverless car?

A driverless car – or autonomous vehicle technology as it's also known – is essentially a robotic vehicle, powered by automated technologies, that's designed to travel between destinations without a human operating it.

The good, the bad and the dreadful: what consumers think of the idea

Semi-autonomous systems on many new vehicles, such as Tesla's Autopilot and Autonomous Emergency Braking (AEB), may be technology that we're already used. But consumers have mixed feelings about driverless cars. Exactly half of those we surveyed consider them a good idea and feel they offer many benefits over the vehicles we drive today. The other 50% have concerns – safety being a particular issue. Opinion here is divided, with 31% believing these vehicles will be safer, 29% less safe and 20% saying they don't know.



When we asked consumers for their views on safety, the results mirrored the level of familiarity they had with driverless cars. So if familiar with them, 30% think they're safer, but if not accustomed to these vehicles, this percentage drops to 22%.

Putting autonomous driving to the real world test

Thatcham Research is the only insurer-funded research centre and independent voice of automotive safety and repair. In realising their vision of 'Safer cars, fewer crashes', it is very positive about Volvo Vars' UK based autonomous driving trial called 'Drive Me London'. Beginning as early 2017, the key difference with this trial will be that Volvo Cars will source data from real families and everyday drivers using UK public roads

As Peter Shaw, Chief Executive at Thatcham Research said: "This is a landmark trial in the development of autonomous driving. the data collection and analysis will for the first time provide real world insights into how drivers actually react to autonomous driving in actual road conditions."²



50% of consumers believe the driverless car concept is great. But 37% think it's terrible



As people become more familiar with driverless cars, acceptance increases to 56%

Among these less familiar with driverless cars,



55% of 18-34 year olds are slightly more receptive to the idea



compared to 50% of 35-54 year olds 46% in the 55+ age group





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Programmed to be extra vigilant?

With their onboard cameras, radars, sensors and fasterthan-a-human reaction times, driverless cars could help reduce accidents and collisions – 90% of which are currently caused by driver error. In fact, an October 2015 study by the University of Michigan in the US concluded that: *"The overall severity of crash-related injuries involving self-driving vehicles has been lower than for conventional vehicles".*³

But on the whole, most people don't believe driverless cars could ever be 100% error-free. And many doubt whether the technology will become sophisticated enough to handle life-changing decisions.

What if, for instance, a mother pushing a buggy steps out into the road suddenly, or a cat runs out and the car does not have enough time to stop? Should it swerve into the path of oncoming traffic, potentially threatening the lives of its own passengers and others? And if an owner doesn't agree with the default ethical algorithm, would they have the right to override the settings? These are all considerations that will inevitably influence the motor insurance landscape in the future.

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Looking at the up and downs ahead

When asked what might be considered plus points, 70% of consumers attribute at least one benefit to driverless cars. The most popular included: fewer traffic accidents due in part to the vehicle's 360? field of vision, lower insurance premiums and less driving stress.

But these beliefs are not widely held by all consumers, with 91% seeing a minimum of one drawback. This is mainly due to the vehicle's automation – and the need to depend on software to be highly-reliable. Not fully recognising behavioural cues and nuances of pedestrians, as well as police or roadside workers instructions, are also key concerns for 42-58% of those surveyed.

There is also the perceived risk of drivers being unprepared for manual driving situations and overriding the automated controls if necessary. Overall, increased familiarity brings a broader understanding of the benefits. But on the flip side, it makes any drawbacks stand out more as well.



76% of those familiar with driverless cars see at least one benefit – compared to 62% who are less familiar

95%

Of those familiar with driverless cars, 95% see at least one drawback. If unfamiliar, that figure is 86%



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Does age affect views on the benefits and drawbacks?

On certain points, such as reducing traffic congestion and emissions, or arguments over navigation, consumers of all ages view the benefits of driverless cars in a similar way. But there is a marked difference among the older groups around perceived drawbacks.

66% of 55+ consumers versus 52% of 18 to 34 year olds are particularly concerned by issues such as dependency on software that requires high reliability – and to a slightly lesser extent, the capability of the car's navigation system in extreme weather situations. Giving up control of things like routes, speeds driven and manoeuvring is also something half of the 55+ year olds are more averse to, compared to only 36% of the younger groups. Interestingly however, the millennial generation appears a little more concerned with other aspects, including loss of privacy and driving-related jobs.



30% of 18 to 34 year olds see the benefit of driverless cars communicating with roadside infrastructure such as traffic lights and minimising fuel consumption as a result.

44% of 55+ group versus 37% of both the 18-34 and 35-54 year-olds are resistant to giving up the driving experience.

Measuring the comfort factor

Come rain, shine or heavy traffic, how comfortable consumers feel about driverless cars is pretty mixed. Generally speaking, the results show that consumers express greater comfort in less risky driving situations, such as 49% in dry weather conditions, while only 22% feel comfortable in icy weather.

Familiarity with driverless cars again proved key to levels of comfort and discomfort with various driving situations.

In dry weather

In wet weather



Cheaper cover heading our way?

When asked if they expected that using a driverless car would lead to different motor insurance, just over half of the consumers anticipated changes. 59% said 'yes' to it being cheaper, while only 9% thought it would be more expensive. Very few, at just 10%, expect status quo. 6% reckon there will be fewer claims, and only 1% think cover should be free.



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When travelling as the only passenger

Has Google found the sticking plaster?

Google has identified a potential way to reduce the severity of damage caused by a driverless car colliding with a pedestrian. They have recently patented a sticky coating that sits under the paint of the car. So if the vehicle hits a person, they will be glued to its bonnet, rather than thrown off into the road and at risk of further injuries.

Google has not said whether it intends to implement the idea in its driverless vehicles quite yet. But as Andrew Morris, Professor of Human Factors in Transport Safety at Loughborough University said, "It does have some merit to it".⁶ And it's easy to see the positive effect this clever invention could have on the insurance industry in the event of someone being hit by a 'sticky car'.

Consumer attitudes to insurance

How consumers currently think about insurance and who provides it, if they owned a driverless car, highlighted a significant degree of uncertainty. One-fourth at 26% still expect to get insurance from the same type of insurer they have now. While 8% say they would not need motor insurance and only 3% would research and shop around for a different provider.

Does a whole new way of driving mean a new type of insurer? The study suggests that expectations for insurance coverage changes, rise in accordance to increased familiarity with driverless cars. So if consumers know about them, 19% are more likely to get cover from a non-traditional insurance company, rather than the traditional insurer of today.

How will insurers adapt to a driverless landscape?

As the vision of driverless cars becomes a reality – new questions, concerns and predictions of what this will really mean for consumers and the UK motor insurance market will inevitably be raised. Before embracing the opportunities, there are challenges to overcome.

In June 2015, Paul Zanelli, Chief Technology Officer for the Transport Systems Catapult said, *"The driverless car sector is currently growing at 16% a year and the government estimates it will be worth £900bn a year globally by 2025."*⁷ So clearly there are economic advantages to be had. Driverless vehicles mark the biggest change to transport since the invention of the combustion engine. They are seen as the future and will create many new opportunities for societyincluding bringing highly skilled employment to the UK.

Chancellor George Osborne backs the new legislation saying, "At a time of great uncertainty in the global economy, Britain must take bold decision now to ensure it leads the world when it comes to new technologies and infrastructure."⁴

Leading car manufacturers appear to be equally positive and willing to put money into the driverless technology. As Paul Wilcox, chairman of Nissan Europe claims:

"Autonomously equipped vehicles will improve the safety and wellbeing of drivers, with fewer collisions and reduced traffic congestion."⁵

Behind all the excitement, however, lies the thorny issue of insurance. On this, LexisNexis Risk Solutions, MD, Bill McCarthy believes:

"We expect that more driverless cars will make roads safer. Research conducted by Forbes also suggests that insurance premiums may come down by as much as 75%. They are a brand new route for global investment too, estimated to be worth around \$1,500bn."



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But, as a note of caution, Ben Howarth, policy advisor at the Association of British Insurers, also pointed out that "If car drivers are replaced entirely by passengers who have no way of overriding or controlling the systems in the vehicle, it's possible manufacturers would be liable in the case of accidents."⁸

Clearly the insurance industry and legislation must keep pace with the rapid technological changes and government initiatives on the horizon. That way, legislation can meet the needs of this brave new automotive world, and help customers feel confident that they're protected. In order to do this, certain concerns must be addressed. In the event of an accident, for instance, is the car owner or manufacturer liable? Or does responsibility lie with the producer or software engineer of a specific piece of equipment that failed?

Who's in the driving seat?

In March 2016, an amendment to the United Nations Convention on Road Traffic means a car is now allowed to drive itself, as long as the system "can be overridden or switched off by the driver".⁹

That new stipulation suggests that a degree of responsibility still rests with the driver, who has ultimate control over the driverless vehicle. However, the manufacturer must ensure the car they deliver to a customer is programmed to run in line with national road regulations – and cope with an array of scenarios, from hazardous weather to unpredictable pedestrians.

Whether a driverless car can have that level of intuition is something that will be played out in the coming months and years in the UK. Particularly after George Osborne announced in the 2015 spring budget that £100m will be set aside for research and development of automated cars over the next five years.

Following the Queen's speech on 18th May 2016, the UK government has promised to deliver new legislation that, from 2020, should make driverless cars easy to insure. It will lift restrictions on having to 'drive' in carefully controlled 'autonomous areas' and instead allow the driverless car to legally join other motorists on the road.

The government is still keen to start autonomous trials in 2017 on smaller roads and extend these to the UK's motorways. But before then, it's clear that there needs to be a considerable amount of research and debate around the implications of the autonomous driving for the insurance industry.

"There are some practical and legal issues that need to be addressed," says Ben Howarth, "particularly about where ultimate responsibility for an autonomous vehicle will rest."



Getting through the legislation

Across four US States, France, China, the EU and the UK, market readiness to deploy self-driving cars is looking positive. General Motors has recently acquired Cruise Automation to accelerate autonomous vehicle development. The political will is also certainly there too, with Chancellor George Osborne saying: *"At a time of great uncertainty in the global economy, Britain must take bold decisions now to ensure it leads the world when it comes to new technologies and infrastructure."*

The biggest challenge the market faces right now are the various goals set by legislation. Examples of these are: the slow and complex legal process behind introducing new rules for commercial fleets. The need to speed up regulators in charge of things like AEB testing for pedestrians and cyclists. Increasing the data sharing and R&D between OEMs and Insurers in Personal & Product Liability. And simplifying the standards, versions and lead time of Vehicle to Vehicle (V2V) Communication.

From regulation and data privacy to cyber security, AV Technology to consumer trust, it's clear that the timescale for when these different processes are adopted by the market is very much work in progress.

Sources:

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