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# Technology risk in insurance: why UBI carriers can't stay stationary for long

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The growth of the usage-based motor insurance (UBI) market has typified the technological opportunities and threats experienced by insurers in recent years. Yet even those that have stolen an apparent march over competitors won't be able to sit on their laurels as the market continues to evolve.

Few, if any, sectors of the insurance industry have been more broadly exposed to technological risks and opportunities in recent years than the motor insurance market. The rise of internet price comparison sites that have irreversibly changed distribution models in certain geographic markets, assisted driving technologies that impact claims, the growth in data analytics capability, the rise of on-demand, short-term policies and the promise of driverless vehicles that raise questions about the very nature of liability and motor

insurance – all are examples of developments that have had or are having a transformative effect.

Indeed, technology has even helped spawn a whole new branch of motor insurance – the use of telematics technology to monitor driving behaviour for usage-based insurance (UBI) products.

In the space of around 15 years, around 10% of American drivers have agreed to provide actual driving data in return for a potentially cheaper motor insurance policy. According to a recent Willis Towers Watson survey of over 1,000 US consumers, 81% of respondents (93% of millennials) said they would be willing or open to sharing recent driving data, with broad acceptance of various data transfer technologies (figure 1). A similarly high number (84%) would be interested in or open to having a short trial to determine the discount they could get before buying a policy. Other markets where telematics-based products have also begun to win significant numbers of customers include the UK, South Africa and Italy.

Figure 1: Willingness of different age groups to share recent driving data for personalised insurance quotes

Four out of five drivers are open to sharing their recent driving data for personalised insurance quotes

Most drivers, regardless of age, are open to sharing driving data\* for better insurance options

Millennials			Baby boomers		
Definitely/ probably <b>78%</b>	Not sure <b>15%</b>	Total <b>93%</b>	Definitely/ probably <b>51%</b>	Not sure <b>28%</b>	Total <b>79%</b>
Generation X			Older generations		
Definitely/ probably <b>61%</b>	Not sure <b>26%</b>	Total <b>87%</b>	Definitely/ probably <b>26%</b>	Not sure <b>27%</b>	Total <b>53%</b>

\*Recent driving data such as the past month's data from navigational apps or in-car system

Source: Willis Towers Watson US consumer UBI (telematics) survey, February 2017

Market growth to date has mainly relied on UBI pioneers persuading consumers to have an in-car device fitted in their car or to install an app to gather details such as speed, braking and location. It would seem to follow that those that have made a success of it would be well positioned for the future.

That may well be the case, but emerging technological developments also illustrate how even those that have been at the forefront of UBI expansion may not be immune to technology risk factors in insurance.

## Data, data and more data

The core reason is that the mass of new telematics data sources coming on stream for UBI providers is taking the analytics required in new directions.

Critically, connected cars, the Internet of Things (IoT) and other new point-of-sale data sources make information about a consumer's driving and other behaviour available prior to policy issuance. This opens the door to ground breaking opportunities in marketing, underwriting and

pricing for all insurance carriers. And demonstrating the extent of the impact this could have, a recent Willis Towers Watson US consumer survey found that 55% of all drivers surveyed (79% of millennials) said they were likely to buy a new or pre-owned vehicle equipped with new technology features within two years (*figure 2*).

“ ...emerging technological developments illustrate how even those at the forefront of UBI expansion may not be immune to technology risk factors... ”

Figure 2: Consumer interest in buying a car with new technology\*

### Millennials and Gen X are most interested in new driving technology

	Millennials (1981 – 1992)	Generation X (1965 – 1980)	Baby boomers (1946 – 1964)	Older generations (1920 – 1945)
<b>Likely</b>	79%	66%	42%	36%
<b>Neutral</b>	12%	17%	19%	19%
<b>Unlikely</b>	9%	17%	39%	45%

\*Wi-Fi, vehicle maintenance alert system, vehicle theft tracking, built-in entertainment system, automated emergency roadside assistance, driver coaching tools such as speed alerts, Apple/Android compatibility, assisted driving features or self-driving capabilities

Source: Willis Towers Watson (February 2017)

From a policyholder perspective, it will mean that they can determine through a try-before-you-buy promotion or at the quote stage if a telematics policy will benefit them before they buy one. Carriers, for their part, will benefit from being able to get earlier access to actual driving data in order to understand and price risk more precisely and also to offer the kind of digital customer experience to which consumers are becoming accustomed – without the cost and hassle of installing a dedicated telematics tracking device.

Equally, this will rely on consumers being willing to share recent driving data (say from the last 60-90 days) to receive a personalised quote. 81% of respondents (and 93% of millennials) in our survey said they would be willing or open to doing that. So the market opportunities could be substantial.

Nonetheless, new analytics techniques will be required to unlock those opportunities. **Three** critical examples that we believe insurers will need to address are:

## 1. How to manage multi-source, open-format data and organise technology resources

The range of data sources that the industry may be able to tap in to is sizeable, but will involve considerable data variability. The keys to getting the most value out of this diverse and growing pool of data will be a flexible platform to manage it, combined with sophisticated analytics to turn data into knowledge.

Although many insurers in the US and around the world are either updating or have recently modernised their systems, most have initially focused on reorganising existing data and information. Many may need to widen their scope to include the capability to leverage new data sources for current or future UBI programmes.

But even when such data are accessible, only sophisticated analytics will turn them into useful information. The most granular datasets typically reveal truly risky driving characteristics that can then be applied to less detailed data, although more data doesn't always correlate to better insights without the right analytics. For example, harsh braking is a common metric used in basic UBI scores. While there is a correlation between the number of harsh brakes and the chances of having an accident, harsh brakes don't cause accidents (but rather help drivers avoid them). We have determined from our own analysis that some UBI driving scores in use today actually create less value than simply analysing mileage.

## 2. How to synthesise driving and location data into meaningful content for consumers

Information about how, when, where and how much a vehicle is driven is not just useful for an insurer but also for capturing the attention of the insureds. For ambitious

UBI providers, the expanded data universe should give the opportunity to move the customer relationship to a different footing. This will require an insurance carrier to be able to turn the detailed granular data into timely, meaningful and intuitive insight for the driver. Consumers, in turn, could benefit from a combination of incentives and rewards complemented by effective communication to encourage safer driving. For example, over 80% of US drivers in our survey who already have a UBI policy said that feedback received had changed the way they drive.

## 3. How to integrate policy pre-qualification data from telematics sources with traditional rating and underwriting methods.

Rating plans are already changing due to the proliferation of UBI data. Several companies have started to vary the weighting of traditional pricing factors based on what they have learned about actual driving behaviour.

Those with more in-depth experience of handling driving behaviour data should have an advantage in creating market-disrupting rating from new data sources. This doesn't preclude others, but they will typically need to begin by learning more about the driving behaviours that are actually causing claims and the industry resources that can help deliver risk segmentation 'quick wins'.

While gaining scale, there are some significant incremental changes that companies can begin making to ensure rating stays aligned with occurring and anticipated changes. For example, with just a little experience, a company could start by validating current rating assumptions (such as mileage and garaging postcode). An insurer could then adjust traditional factors that are proxies for true driving exposure (such as age, gender, marital status and insurance score) and use data available from new data sources prior to making a quote.

### MetLife: putting principles into practice

MetLife Auto & Home® has expanded its usage-based motor insurance programme, My Journey®, this year with a new smartphone app to monitor and improve its customers' driving. The app automatically tracks key driving behaviours, including total miles driven, time of day, road type and conditions, hard braking and harsh acceleration and phone-based distracted driving, in order to arrive at a score for each trip. Through the app, drivers can get a good idea of how they drive, as well as when and by what they are being distracted, so they can alter their behaviour and become safer drivers.





## Are IT systems up to the job?

All of the above takes IT power and capability. An associated technology risk therefore is whether property and casualty (P&C) insurers' IT systems can keep pace at a time when they are already under greater stress than ever before from big data, pricing and policy administration demands.

The good news for insurers' IT departments is that in-car technologies (bring-your-own-device) should effectively eliminate the need to manage technology fulfilment.

The harder part will be handling, analysing and sharing the exponentially larger volumes of data. The complexity of creating appropriately flexible systems will rise as will the potential for the analysis paralysis that gripped many early UBI programmes. There will be no one-size-fits-all approach or fixed timescale. The key will be to balance what the company wants to achieve with its IT and resource capabilities – and then find the right partners to fill in any holes.

## Keeping on the move

The need for adaptability is certainly not unique to UBI and has become part and parcel of competing effectively in a wider motor insurance market that continues to operate in a technological hotspot. Even those at the head of the pack today have to stay alert to the changing nature of associated business risks and opportunities.

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