TATA CONSULTANCY SERVICES

Building on belief

Multiplying returns from usage-based insurance programs

Abstract

Telematics-enabled, usage-based insurance (UBI) programs such as pay-as-you-drive (PAYD) and pay-how-you-drive (PHYD) are ubiquitous and growing across geographies. Early skeptics have gone quiet as millions of users adopt usage-based insurance (UBI) despite privacy concerns. However, apprehensions persist in the minds of business leaders around pricing correctness and underwriting efficiencies. As millennials prefer shared mobility and using public transport, insurers must explore ways to increase market share and remain relevant by staying close to their customers. This is where a context-aware pay-how-you-move (PHYM) approach will help.

This white paper explores how leveraging the abundant data in the mobility space can help insurers accelerate returns on UBI investments through a reimagined pricing platform. The paper also explains how insurers can lead in the mobility space by focusing on purpose-driven protection at an optimal price throughout the consumer movement and reduce fraud through quicker and thorough claims screening.

Usage-based insurance: Why a revamp is essential

Introduced nearly 15 years ago, usage-based insurance (UBI) programs have evolved from awareness-oriented solutions to smartphone-led advisory-oriented offerings. UBI programs powered by telematics technologies reward drivers with a consistent record of safe driving through premium incentives and by providing constant feedback on trip summary, trip score, average safety grade, and so on, that help claim avoidance. However, the current state of UBI (UBI 1.0) fails to factor in the evolution of regulation, technology, and consumer behavior resulting in inaccurate pricing and lost opportunities for insurers. Limitations of existing telematics programs or UBI 1.0 include:

Discount based market strategy

As UBI programs are optional in nature, people can choose to opt-in or opt-out. So, good drivers come in for discounts. Bad or occasional drivers stay on the fence either by opting out or turning off the monitoring device, which translates to inconsistent results. Discounts are the only way to onboard and retain users. When the telematics score is applied at renewal, customers with bad scores (and hence higher premiums) go price-shopping, and the insurer is forced to compromise or risk losing future premiums.

Missing out on consumer behaviors

Today, there is a clear shift in customer mindset from ownership to purpose, as proven by the burgeoning ride-share players and shrinking driving license holders. Ridesharing is a growing trend and compared with 2001[1], 6% fewer US adults in the age group of 20-24 held licenses in 2017.[2] Consider a typical work commute in a big city—instead of driving, customers may prefer to take a cab and get some work done by catching up on e-mails, stay fresh, and be less affected by crowded mornings. While returning home, it is a matter of striking a balance between expenses and getting things done—customers may choose to hop from one mode of transport to another. As a result, the risk exposure varies across shared and public vehicles as commuters are not always adequately insured.

Missing out on technology evolution

UBI solutions began with vehicle onboard devices (OBDs) and expanded by tapping into mobile sensors. However, new-age trends such as near field communication (NFC)-enabled cards, radio frequency identification (RFID)-enabled vehicle plates, location-aware apps, always-connected users, and low-cost platforms that can detect user movement in real-time, were not adopted. This resulted in an inability to reap the benefits of increased data accuracy and access to additional data on risk exposure.

Privacy concerns

UBI 1.0 started with the need for detailed data gathering with the option for customers to turn on or off the monitoring device and increase or reduce the level of data sharing. In the retail sector, customers are willing to share data for increased convenience and better advice.[3] Similarly, next-gen customers are open to sharing data once they are informed, especially when assured of a superior experience. However, insurers failed to address concerns around location information, transparency and data controls thereby resulting in customers exiting UBI programs.

Missing out on data abundance

Vehicle technology has evolved from rain-sensing wipers, blind-spot alerts, and reverse park assists to self-parking, collision avoidance, and lane keeping assist (LKA). This is due to the evolution in advanced driver assist systems (ADAS) and the growing number of electronic components like steering wheel angle, car lane position, distance from obstruction, and so on, in modern electric vehicles (EV). Moreover, Google Maps, Motion-S, and multiple such initiatives backed by controls and regulations have made weather, road sign, road type, traffic level, road constraints (for example, construction or repair), and other accident-related data available. UBI 1.0 failed to leverage these data points to facilitate precise underwriting.

Overcoming these limitations will require insurers to embrace a purpose-driven ecosystem approach and partner with mobility players like original equipment manufacturers (OEMs), rideshare providers, public transport providers, smart city infrastructure (charge points, parking locator) and so on.

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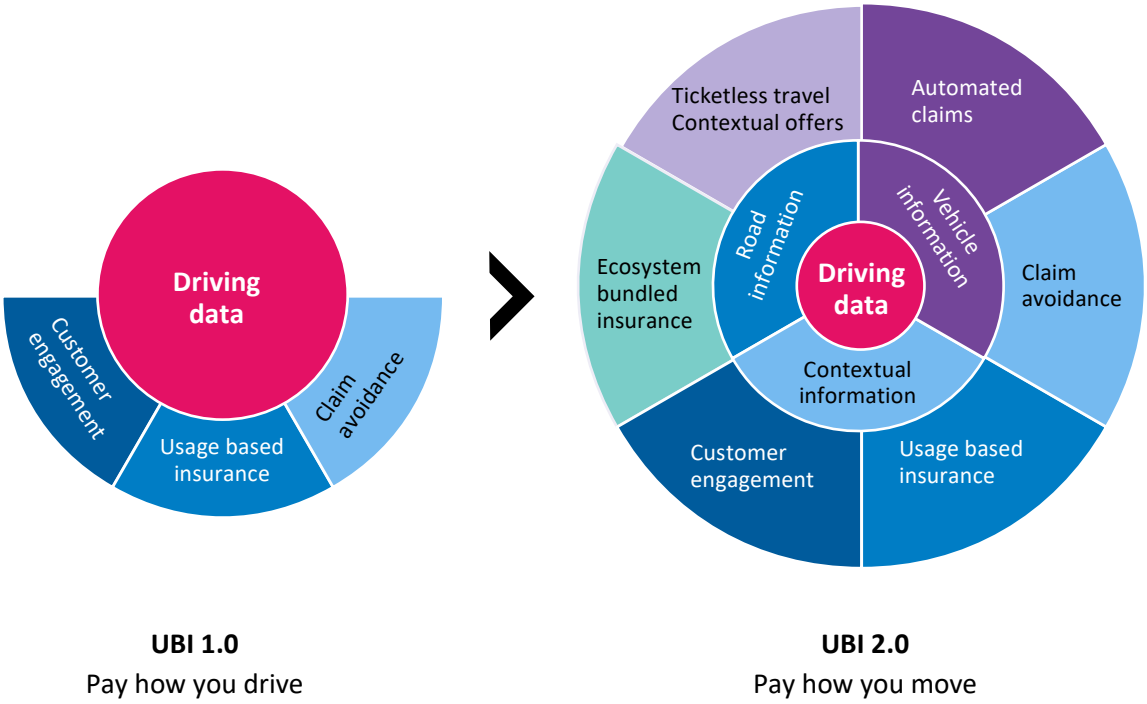
[1] US Department of Transportation, Federal Highway Administration, Highway Statistics 2001, Accessed August 2021, *https://www.fhwa.dot.gov/policyinformation/statistics/2001/dl20.cfm*

[2] US Department of Transportation, Federal Highway Administration, Highway Statistics 2017, Accessed August 2021, *https://www.fhwa.dot.gov/policyinformation/statistics/2017/dl20.cfm*

[3] NACS, Amazon Go Comes to Chicago, San Francisco, May 2018, Accessed September 2021, *https://www.convenience.org/Media/Daily/2018/May/ND0516181_Amazon-Go-Comes-to-Chicago-San-Francisco*

Embracing a purpose-driven ecosystem approach

The ecosystem approach enables insurers to provide adequate insurance cover throughout the journey as customers move from point A to B. This elevates UBI 1.0, which centered on driver behavior and vehicle usage, to UBI 2.0, which is a mobility-centric approach focused on providing coverage for the entire journey (see Figure 1) ushering in a shift from pay-how-you-drive (PHYD) to pay-how-you-move (PHYM).



UBI 1.0
Pay how you drive

UBI 2.0
Pay how you move

Figure 1: Tracing the evolution from UBI 1.0 to UBI 2.0

Moving from a PHYD model to a PHYM model, however, will entail overcoming the limitations of UBI 1.0. Achieving this will require insurers to define a strategy with a focus on some critical aspects.

Transparent pricing strategy

Today, as people stay indoors, there is a strong shift from traditional policies to usage-based insurance to reduce expenses. UBI is a consumption-based approach where insurance premium is deducted in real-time as in a metered utility. This will increase adoption due to transparent pricing that reflects in the monthly premium, sooner than the current approach where insured customers have to wait till renewal.

New consumer behaviors

Insurers must adopt a well configured PHYM product to cover varying risks across multiple modes of transport. Depending on the mode and applicable coverages captured by presence technologies such as RFID and location aware apps, the premium can be auto-debited as per the coverage provided.

Digital technology enablers

By leveraging data from connected cars and other presence technologies, the accuracy of UBI scoring models can be significantly improved. In addition, experiential value can be delivered through micro-engagements like recommending a vacant (safer) parking location in crowded streets, providing alerts on battery level and charge stations in the vicinity.

Claims handling experience is among the top drivers of net promoter score (NPS) in insurance. Vehicle, context, and car vision data can help corroborate drivers' statements. Built-in or dash-mounted cameras can help the adjuster with cause determination and fault apportioning. This will reduce claim settlement cycles and plug leaks caused by fraudulent claims, particularly in remote roads and uninsured damage claims.

Minimal data mindset

Privacy concerns can be alleviated by using self-expiring, short-lived data, edge intelligence, and storage-less servers that scrub the streaming data and store only anonymized data and scoring points. Hyper-scalers with zoning and automated data purge (right to forget) capabilities can address compliance requirements. In addition, there is an ongoing regulatory drive to allow data sharing in the mobility space with proper controls in place, which will go a long way in alleviating fears around privacy and enhance UBI adoption.

Data analytics

Underwriters are constantly concerned about including or excluding risks and arriving at a price that is both competitive and profitable. Connected cars can provide data from advanced driver-assistance systems (ADAS), among others, that claim adjusters, underwriters, and pricing actuaries can consider (see Figure 2).

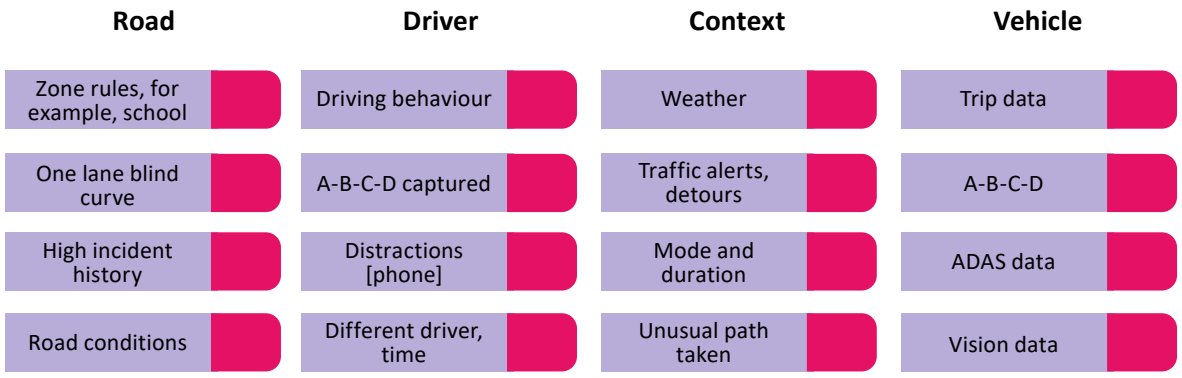


Figure 2: Abundant data from connected cars

There could be additional attributes that the traditional actuary models do not support. Insurers must adopt models that include new attributes, scoring factors, and what-if scenario and impact analysis. With abundant data, a digital twin of the portfolio or product can be built to simulate customer reactions to price changes and improve the quality of decision-making. Business users should have the option to shift misplaced or universal telematics program discounts to targeted reward programs.

Looking ahead

Telematics is changing from passive scoring for post-facto adjustments into real-time pricing for mobility services bundled with insurance as smarter vehicles provide data in abundance through universal connectivity. PHYM is the future, and while embracing this trend, risk functions of insurers should design the right pricing model after considering multiple factors and enable continuous underwriting. In addition, insurers must design a fully digital core to upgrade to UBI 2.0 and expand their business in the mobility space. To accomplish this, insurers may need to partner with the right service provider after a well-rounded market analysis.

About the authors

Kamesh Meduri

Kamesh Meduri is an enterprise architect in the Insurance Technology Group of TCS' Banking, Financial Services, and Insurance (BFSI) business unit. With over 20 years of experience in the BFSI industry, Kamesh has worked with global insurers in the US, Central Europe, and a US-based retail bank. He has specialized in the solution architecture of modern web experiences, complex integration projects, and large transformation programs. Kamesh holds a Bachelor's degree in Mechanical Engineering from Birla Institute of Technology and Science, Pilani, India.

Venkat Seshadri

Venkat Seshadri heads Insurance Research and Innovation for TCS' Banking, Financial Services and Insurance (BFSI) business unit. He has 23 years of experience across core transformation, consulting, solution development, and innovation in the insurance industry. In his current role, he focuses on new technologies with the capabilities to re-imagine insurance products, processes, and customer experience. Venkat holds a Bachelor's degree in Engineering from College of Engineering, Guindy, Anna University, Chennai, India.

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